



Wild Lands Advocate

BY ALBERTA WILDERNESS ASSOCIATION
WINTER 2023

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C O N T E N T S

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ALBERTA WILDERNESS ASSOCIATION

“Defending Wild Alberta through Awareness and Action”

Dedicated to the conservation of wilderness and the completion of a protected areas network, **Alberta Wilderness Association** is a voice for the environment. Since 1965, AWA has inspired communities to care for Alberta's wild spaces through awareness and action. With a provincial office and library in Calgary, AWA has active members, volunteers, and sponsors throughout Alberta and beyond. AWA is a non-profit, federally registered, charitable society. Donations and financial support are greatly appreciated.

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Alberta Wilderness Association

455-12 ST NW, Calgary, AB T2N 1Y9
403-283-2025
www.AlbertaWilderness.ca
awa@abwild.ca

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Cover Photo: I have spent the last two-plus years since joining AWA working to protect the McClelland Lake Wetland Complex. AWA has been doing so as an organization since the early 1990s, if not before. The expansion of Suncor's Fort Hills oil sands mine — scheduled to begin in 2025 — risks ruining it all. My recently retired colleague, Carolyn Campbell, visited McClelland back in 2008, and during our time together she always encouraged me to try and see the place for myself. In September, my opportunity to see this treasure in person finally arrived. *Photo © Phillip Meintzer*



Phillip Meintzer

Editorial Note: Hi readers, thanks for picking up our latest issue! As I read through the article submissions this time around, I noticed an underlying theme: each story describes the scars that have been (or could be soon) inflicted on our landscape. There's a lot of hurt happening in Alberta and the world: not just on the environment but among its people and other living creatures too. From a loss of affordable homes and food among humans, to a loss of habitat and sustenance for our wild relatives, and even across the world as war destroys the lives of many innocent people, we might, after a closer look at the root causes, find that many of these problems have a common thread as well. In these times, we must challenge ourselves to learn from new perspectives, and question systems we've previously never considered to doubt.



Amy Tucker, AWA
Outreach and
Communications
Specialist and
Wild Lands
Advocate Editor

Building a Relationship with the People of McClelland



By Phillip Meintzer



Driving from Fort McMurray to Fort McKay helped provide perspective on the scale of destruction that surrounds residents of Fort McKay on all sides.
Photo © P. Meintzer

Note from the author: In early September 2023, AWA staff spent three days in the Fort McMurray area to visit the McClelland Lake Wetland Complex and to meet with people who have ties to the region. This article focuses on our visit to Fort McKay to meet Indigenous Elder Barb Faichney. To avoid any unwanted or potentially harmful mischaracterization of information, all comments and statements attributed to Barb Faichney within this article have been reviewed and approved by Barb herself. AWA also offered a gift of ceremonial tobacco and a small honorarium to Barb in exchange for her time and her knowledge. We do not want to risk repeating the harms of colonial, extractive behaviour in the work that we do. It should also be noted that I am forever grateful for Barb's openness to meeting and sharing her knowledge with us. Nothing has inspired me in my work nearly as much as seeing McClelland in person and our visit with Barb in Fort McKay.

The morning had an ominous feeling about it as we drove through mist mixed with wildfire smoke blowing in from the north. We — myself and colleague Amy Tucker — were heading to visit an Indigenous elder in Fort McKay, home to approximately 800 community members of mixed Dene, Cree and Métis descent. It's roughly a 45-minute drive from Fort McMurray, past numerous oil sands mines, including Syncrude's Mildred Lake mine and Suncor's Base Plant.

It's hardly enough to say that Fort McKay is sandwiched between mines. It is surrounded on all sides. An ongoing resistance against a ceaseless colonial siege.

About 60 kilometres north of the community is the McClelland Lake Wetland Complex, the main reason for our trip. McClelland's patterned fen alone is one of Alberta's greatest ecological treasures, taking around eight to 11 thousand years to form, and the area stores millions of tonnes of carbon, which is crucial for mitigating the worst impacts of climate change. The expansion of Suncor's Fort Hills oil sands

mine — scheduled to begin in 2025 — risks ruining it all. Since joining AWA back in May 2021, I have been working to try and protect the complex. AWA has been doing so as an organization since the early 1990s, if not earlier.

A hot asphalt-like smell, similar to when roadwork is being done, wafted through the car vents during the drive along the highway. We hit the air recirculation button on our car's dashboard, hoping to minimise the smell, and our exposure to whatever was causing it. For those who live in the area, the smell is unavoidable and permeates everything.

Fort McKay is not a large place, but that didn't prevent Amy and I from getting lost while trying to find the home of Barbara Faichney. Even after calling Barb for more detailed directions, I still had to ask an on-duty lawn care worker if they could point us the right way. By chance, this worker happened to be one of Barb's grandchildren. We arrived at Barb's front doorstep just before 10:30 a.m.

My hope for this meeting was to use

AWA's public profile and reputation to help support and amplify the voices of those who have been silenced from speaking up until now. Voices such as Barb's. AWA as an organisation may be trying to protect McClelland for its ecological importance, but we also need to support the people who have a direct connection to it and consider McClelland part of their home.

Barb was waiting for us outside. She welcomed us into her kitchen and served us coffee as we introduced ourselves and the work we do on behalf of AWA. Other than a few questions I had prepared, we came into this meeting with no formal plan for how we wanted the conversation to go. We wanted to provide Barb the space to share any stories or information that she felt were relevant or helpful to our campaign. The conversation flowed straight into an informal discussion of Barb's life, her childhood spent in the vicinity of McClelland Lake, her family's connection to the land, and her fears about the potential impacts of the Fort Hills mine expansion.

Barb was born at St. Gabriel's Hospital in Fort McMurray in 1954, and she grew up at a place she calls their "Little Red House" along Horse Creek, near Bitumount, one of the earliest sites where oil sands mining was first attempted. Barb's father was born in Wabasca, he was a trapper, and he also worked at a salt plant nearby. Her grandpa Jim was a Scottish settler who ran the local Hudson's Bay Company trading post. Her mom's parents were both trappers as well. Barb told us that she "lived in the bush," until she was around 15 years old. The time she spent around McClelland Lake during her childhood was "nice, peaceful, and quiet." In 1961, when Barb was seven years old, her parents were forced to send her to the Indian Day School in Fort McKay, otherwise they would be sent to jail (or so they were threatened). She doesn't know who ordered her parents to do this, but she suspects it may have been the Indian Agent for the area at that time.



Barb shared many family stories and photos with us during our visit so that we could better understand her connection to the region including the McClelland Lake Wetland Complex. **Photo © P. Meintzer**

One of my first questions for Barb was whether Indigenous Peoples in the area use a different name to refer to McClelland, as opposed to the commonly used colonial name. My hope was to update the terminology we have been using, partly to bring focus on the Indigenous history in the region, but also because McClelland Lake Wetland Complex doesn't really roll off the tongue easily. Barb said that everyone she knows has always called it McClelland, and that there's no other name she is aware of. I wonder whether it's just another piece of cultural history that has been lost or forcibly erased since first contact with European settlers.

Barb recalls memories of wildlife at McClelland Lake, especially birds, such as sandhill cranes, whooping cranes, and blue herons. She is familiar with a particular family of blue herons which she says always return to the same nesting spot, and she feels a need to protect them. She remembers seeing caribou on occasion, although they were usually further north where there is more lichen, and she has even seen buffalo tracks near the lake at times. Her family would hunt moose, rabbit, and beaver as their main source of diet, although Barb tells us that she never liked eating beaver.

Commercial-scale production from Alberta's oil sands region didn't begin in earnest until around 1967, which means that throughout Barb's life she has witnessed the cumulative impacts of development firsthand. She said that she remembers a time when some company (either Petro-Canada or Suncor) put up a gate blocking access to her family's trapline. But she wasn't going to let a gate stop her. "The oil companies say that the gates are for our protection, but what are they protecting us from? Themselves?"

Over the years she has noticed many changes in the presence and behaviour of wildlife in the area. "Rats [muskrats] used to be everywhere, and now there's none." She now sees pelicans on McClelland Lake when there never used to be any in the area. "There have always been bears around McClelland, but there are less and less everywhere these days" and that "it's harder to eat bear nowadays because they are often full of tapeworms." Barb thinks that this is because the bears are eating human

garbage which may be carrying parasites. The water has also changed over the years. She describes McClelland Lake as being in the middle of a teacup with destruction all around, where everything flows down into the middle. She remembers her father telling their family that they should stop drinking from McClelland Lake in the early 1980s, even if it was boiled. They felt their water supply was no longer safe.

At one point, Barb was the only remaining trapline holder in the McClelland area. It was her grandfather's trapline originally, trapline #2137 she tells us, but she signed it over to her two brothers. Her brothers eventually made a deal with the McClelland Lake Lodge to sell the trapline to them, but Barb feels that they were never adequately compensated for this transaction. The McClelland Lake Lodge is an oil sands work camp, which was recently sold again by Civeo, a workplace accommodations company, to Ero Copper Corp., a mining company, for a sum of \$36 million.

Barb stresses to us that the entirety of the McClelland Lake Wetland Complex is connected (from an ecological stance, by groundwater), and that McClelland is also connected to all the surrounding area. She told us about an area within the patterned fen, an important nesting site for ducks, which sits right next to the part of the fen destined for mining. It will likely be destroyed by the activity. She also remembers a place for cranberry picking known as "Berry Hill," which used to be covered by a thick blanket of berries. It's now Suncor's Fort Hills open-pit mine. "It made me cry," Barb says about the loss of Berry Hill. McClelland, she says, is the "land we were raised on, and now Suncor is going in and destroying it."

Barb feels most people in the community fear Suncor because the mining giant has the wealth and resources to hire "better lawyers" to make sure these sorts of projects get pushed through. This — in a way — mimics my own experience with trying to find wetland experts who were willing and able to review Suncor's operational plan for AWA. Most of the people I contacted had to decline because of conflicts of interest with work they had done (or were planning to do) for energy companies like Suncor. Barb feels like most of her community are



Even though the wetland complex is still relatively undisturbed, Barb's family stopped drinking from the lake in the early 1980s due to fears over contamination from the surrounding industrial development. Photo © P. Meintzer

pro-Suncor, or at least it comes off that way. "I don't think that people want to ruffle any tail feathers," she tells us. "Everyone just wants to stay quiet and get by, but what will they [Suncor] do to me if I speak out?" Barb tells us that now, in her older age, she no longer relies on Suncor, and she feels that she can now speak out more freely.

She acknowledged that many people rely on the company for employment, and to support themselves or their family. It's a difficult reality as industry is the reason why they can no longer feed themselves in the first place — corporations (and the colonial governments that enable them) have harmed the environment and prevented communities from living traditionally, which forces them into taking wage labour jobs offered by the extractive industries in the area.

Barb said that since Suncor's operational plan, which details how the company plans to expand its mining operation into McClelland, was approved last September, Suncor no longer seems to be receptive to the concerns or needs of the Indigenous communities. Community members participated (and continue to participate) on the sustainability committee,

established by Suncor to inform the development of the operational plan with western science and Indigenous Traditional Knowledge. There have been much fewer meetings in the past year than in prior years, Barb says. Suncor still has many commitments it needs to fulfill, such as wildlife monitoring based on community-suggested indicators, but Barb says that it feels like Suncor is "backing away from these commitments" now that they have their AER approval. "You can't just stop monitoring wildlife," Barb explains.

The community representatives on the sustainability committee feel that Suncor is not being transparent with its decisions or actions, and that communities always find out afterwards. She doesn't believe that the Suncor staff are bad people, they're just following orders down the chain of command. "Suncor [staff] aren't dumb, they just don't care about the environment at all." Barb feels that community concerns haven't been acknowledged in a meaningful way, and that Suncor has continually mischaracterized her input to suit their needs. She also told us that she thinks AWA made the correct decision by not participating on the sustainability

committee from the start. She is glad that there is someone like us who is being outspoken and critical from the outside.

"Everything we grew up with has been damaged [by industry]," Barb tells us. Once the digging starts for the construction of the underground cut-off wall for the Fort Hills expansion, Barb believes that we will see the impacts immediately. "All the wetlands all over the area are linked together and linked to that lake. You cannot cut off one area from another without causing harm."

Our visit to Fort McKay finished with a couple of short on-camera interviews between Barb and Amy, and afterwards we exchanged our sincere thanks, said our goodbyes, and travelled back to Fort McMurray. The experience was a powerful reminder that I have the luxury of doing this work while sitting at home at my desk from my computer in Calgary, while other people such as Barb — and the Indigenous communities directly impacted by these mines — are not so lucky. This has meant that I'm no longer just fighting to protect some abstract idea of intact wilderness in northern Alberta, I'm trying to ensure that Barb (and others) can always return to the place they call home. 🌲

Species Protection

Part I: The Unspotted Owl



By Nathan Schmidt

Editorial note: This is the first of four articles meant to explain species at risk protection, why it is not working and what must be done to prevent the loss of more species. This first article introduces the Species at Risk Act, its role in Canada and why it has not lived up to expectations.

Earlier this year, Steven Guilbeault, minister of Environment and Climate Change Canada, recommended an Emergency Order under the federal *Species at Risk Act (SARA)* to protect the last remaining wild-born northern spotted owl in Canada. The owl species relies on old-growth forests and is found in Canada only in southern British Columbia.

After eight months of delay, Minister Guilbeault presented his recommendation to the federal cabinet, which rejected his advice and denied the order, leaving the owl's crucial old-growth forest habitat vulnerable to development and the species one step closer to complete extirpation from Canada.

It is difficult to fathom how the status of the Northern Spotted Owl is anything other than an emergency. A critically endangered species, living within a critically endangered habitat,

amid a global biodiversity crisis is a situation that begs for action.

Unfortunately, this is not an isolated incident for species at risk in Canada. Rather, it is another example of a pattern of indecision, neglect and legal uncertainty from all levels of government despite their responsibility to protect species at risk and preserve biodiversity. In Alberta, the ineffective response to species protection touches on some high-profile species including caribou, westslope cutthroat trout, bank swallows, limber and whitebark pines, and sage-grouse.

The reasons for this inaction are complex and differ depending on the species and habitat in question. It has never been more important to bring renewed attention to biodiversity loss, as the crisis of loss worsens alongside the climate crisis.

SARA is Canada's primary legal document for protecting species at risk. It is under the control (or, to use legal jargon, "jurisdiction") of the federal government and applies, with certain important exceptions, across the country. The act came into force in 2002 and represents Canada's commitment to the *United Nations Convention on Biological Diversity*.

It contains a range of tools for protecting species at risk, including identifying and categorizing species; implementing recovery strategies and action plans that create a framework for protecting species and managing their habitat; identifying the critical habitat species need to survive; enforcing protection measures and prosecuting violations; and collaborating with governmental and non-governmental stakeholders to implement all the above.

On paper, the SARA appears to be a comprehensive response to protecting species at risk. But in practice, the legislation is limited in two significant ways.

First, the scope of its protective powers is limited by the rules found in the Canadian Constitution. This is called "jurisdiction," which means

that certain levels of government have decision-making power over certain aspects of our country. The effect of jurisdiction on the SARA is that it can only be used to protect species at risk that are on federal lands, aquatic species or migratory birds.

Federal lands are those that fall within the jurisdiction of the federal government. This can include places like national parks, military property, and reservations. Aquatic species have a broad definition that includes animals and plants. They fall under SARA's control because of federal jurisdiction over rivers and oceans and the federal *Fisheries Act*, which restricts activities around aquatic species. Migratory birds are included because of Canada's international treaty commitments under the *Migratory Bird Convention* and the requirements under the federal *Migratory Bird Convention Act*.

All lands and species not falling under these relatively narrow categories therefore become the jurisdiction of the provinces. It then falls on the provinces to protect at-risk species and their habitat outside those three categories. Separate provincial legislation must be enacted to fill the gaps left by the limited scope of the SARA.

The problem? Many provinces and territories do not have dedicated species-at-risk legislation and if they do, it is often underutilized or ineffective. Alberta is one of six provinces without legislation to protect species at risk. Protections must come through a patchwork of laws that do little to make up for the limited scope of SARA.

British Columbia is perhaps the most concerning example. With the richest biodiversity in Canada, B.C. also holds the distinction of the most species at risk, all without an established system to protect species within provincial jurisdiction. Saskatchewan, Prince Edward Island, Yukon and Nunavut round out the list.



Caribou are among several species at risk that fall into a complicated framework of responsibility between provinces and the federal government primarily due to their habitat. **Photo © M. Bradley**

The remaining provinces and territories have enacted legislation for the protection of species at risk. However, they often lack tools to protect habitat and have not been updated in years or, in some cases, decades. The result is huge gaps in protection, inching species and their habitat closer to extirpation or extinction.

The second limitation comes from the SARA's language and processes. When legislation is made, drafters can choose between words like "must," which compels action and words like "may," which give discretion to decision-makers. SARA contains some of both but tends towards discretion. Where SARA does compel action, it prefers a process of consultation between stakeholders before allowing concrete steps towards protection.

Many species at risk fall into a complicated framework of responsibility between provinces and the federal government primarily due to their habitat. Caribou are a perfect

example. In Alberta, we have herds like the Tonquin in Jasper National Park that fall almost entirely within federal lands while the nearby À La Pêche herd, which has summer habitat within Jasper National Park spends most of the year on neighbouring provincial lands. The wording and spirit of the SARA must be permissive and collaborative by necessity to avoid conflict between provinces and the federal government in situations like the caribou.

This is all rooted in the Canadian Constitution, which contains rules about "heads of power" between the provinces and federal government. Some well-established categories include defence, currency and citizenship which all fall under the exclusive power of the federal government. Logically, it makes sense for the federal government to control issues that affect all Canadians like our military, money and membership in the country. Examples of exclusive provincial heads of power include hospitals, municipalities and

education, things we have grown to associate with provincial decision-making.

Environmental protection is complicated because it was never recognized as distinctly under federal or provincial control when the Constitution was written nearly 200 years ago. This has forced Canadian courts to fit environmental protection into different heads of power depending on context and based on legal interpretation of constitutional laws and norms. This gray area affects the reach of SARA's legal tools, which is why its powers of protection are limited to a few narrow categories. This inevitably influences the political will to make tough decisions when it comes to a species at risk like the caribou.

Tough decisions typically require the protection of habitat, which often has the potential for resource extraction, development and other human activities. However, SARA allows the federal government to encroach on provincial areas of

control in certain situations where provincial efforts are not effectively protecting a species or a species faces “imminent threats to its survival or recovery.” These powers are commonly referred to as the “safety net provisions.” At times they have been proven to have teeth, like the Emergency Order provisions found in section 80 of SARA.

Alberta Wilderness Association successfully petitioned the Federal Court of Appeal to uphold an emergency order for sage-grouse and their habitat found in the southern border regions between Alberta and Saskatchewan. This has since happened once more with the western chorus frog in Quebec. The Federal Court of Appeal upheld another emergency order to prevent residential development in one of the last remaining habitats for the frog in Quebec.

While both are significant victories for species at risk, they are at best triage solutions that do not address the underlying causes of biodiversity loss. Once again, jurisdiction is to blame. For species that do not fit into one of the SARA’s three narrow categories of protection, emergency orders only permit the federal government to “prohibit activities” that adversely affect the species and habitat identified in the emergency order. Mitigation actions remain in the hands of the province. Basically, an emergency order can only stop the bleeding, it is up to the province to heal the wound.

Safety net provisions are primarily reactive and result from governments dragging their feet on important decisions earlier in the protection process - whether it be species identification, recovery strategies, action plans, critical habitat designation or stakeholder consultation.

For lawyers and activists working to protect species at risk, the legal landscape and related political decisions can make success feel near impossible. Lawyer Dyna Tuytel,

based in the Calgary office of Ecojustice, interacts with species at risk laws every day as part of her work to protect species like the endangered southern resident killer whales in British Columbia.

Her front-line experiences with the SARA reflect its shortcomings and the frustrations around political decision-making. Tuytel says that overall, the right tools are available, but everyone is afraid to use them. At the best of times, the federal government is afraid to step on the toes of their provincial counterparts, who often have competing priorities on lands under their jurisdiction.

“Without strong legislation compelling governments to act when species are on the brink of extirpation or extinction, inaction becomes the norm.”

She finds this fear is made worse by a lack of transparency throughout the SARA process, beginning with species identification all the way to extreme actions like emergency orders. When decisions run months or years behind schedule, it is part of her job to find out why and hold the government to account. But even this process is delayed, often requiring action in the courts to compel the government to provide answers and take steps required of them under the SARA.

Ecojustice continues to hold governments to account, challenging inaction like Minister Guilbeault’s delayed recommendation for the spotted owl emergency order. Tuytel believes government accountability is

important. However, litigation alone is not an effective solution in a system where chronic delay and inadequate protective measures have become the norm rather than the exception. Both are fundamental defects when it comes to protecting species at risk, which is a time-sensitive process that requires significant attention.

Compelling governments to act may become more difficult in the new constitutional landscape created by high-profile disputes over other federal laws controlling greenhouse gas reductions and impact assessments for resource extraction projects. One small sign of hope comes from the decisions of the courts entrusted with reviewing government decisions under SARA. The Federal Court and Federal Court of Appeal have both upheld the constitutionality of SARA’s safety net provisions in cases where they have been applied. In doing so, they have emphasized the seriousness of the biodiversity crisis and the duty of our leaders to act accordingly.

Tuytel says SARA is one of our stronger tools and that advocating for change must be done carefully. Opening SARA to amendments to improve shortcomings could backfire, leaving us with weaker laws and losing one of the few effective means to prevent species loss in the process.

But as Tuytel notes, litigating every government decision is not a long-term solution either. The protection of biodiversity comes down to political will, public pressure, and willingness to use existing laws. While governments have an obligation to work within our constitutional framework, this must not be used as a shield to make tough decisions when the evidence shows we continue to lose biodiversity at an alarming rate.

The solutions may be just as complex as the problem and the next three articles in this series will further explore how species at risk law works, what is missing and what must change to protect what we have left. 🌱

Scarred Landscape: Years of OHV Use Changed the Bighorn Backcountry



By Devon Earl



The beautiful wilderness in the Bighorn Backcountry merits protection from unsustainable OHV use. Photo © D. Earl

No amount of trail maintenance will make Bighorn Backcountry's off-highway vehicle (OHV) trail sustainable.

The Bighorn Backcountry is an important wilderness area in the Rocky Mountains and foothills, bridging the gap between Banff and Jasper National Parks. AWA has sought protected area designation for this area for nearly 50 years. From 2004 to 2017, AWA staff and volunteers conducted annual trail monitoring on the Hummingbird trail network to quantify trail damage and record OHV traffic. The results of this long-term monitoring study are detailed in AWA's *Bighorn Backcountry* report, which was released in July 2023. The study shows how — despite attempts at trail maintenance over the years — much of the Hummingbird trail network is unsustainable because it is sited on wet soils and steep slopes that are particularly prone to severe erosion with OHV use.

FROM THE GROUND

This summer, I took a trip to the Bighorn with AWA's executive director Debborah Donnelly and long-time

volunteer Heinz Unger to check up on the condition of the Hummingbird Creek trail. We set out early on a Friday morning to maximize our time on the trail. As we began our hike, I was immediately stunned by the natural beauty of the Bighorn wilderness. The trail looks over a wide-open valley surrounded by forests with a mountainous backdrop. Meandering through the rocky valley bottom, Hummingbird Creek reveals floodplains adorned with shrubs and small trees that offer unobstructed views extending far into the distance before transitioning into mature conifer forests. We brought our water shoes, as the trail passes several times through the creek.

It doesn't take long before it becomes obvious that the trail bears the brunt of heavy OHV traffic. Early in our journey, the trail branches off from its historic course and instead takes a path higher up the valley. Despite the dry weather, we encountered frequent stretches of flooded trail with stagnant water and mud. It's clear why the old trail was abandoned — constant flooding and OHV use leads to erosion, which not only negatively

affects water quality, but eventually renders the trail impassable. It will be a long time before the scar from the previous trail, still blatantly visible, is reclaimed by the landscape.

Travelling the "new" trail, we see it heading for a similar fate. As water gets caught in the trail, the wet mud gets ripped apart by the tires of OHVs, further excavating the trail deeper into the ground and making it more difficult for the muddy water to drain into the creek. To mitigate this, someone has dug channels along the trail's edge to allow a path for the water to drain into the valley. Unfortunately, these channels quickly get clogged with mud, and the trail continues to embed itself into the soil. Several sections of the trail are impossible to travel on foot, requiring us to take occasionally lengthy detours into the forest to avoid slipping and falling into the muddy water. Eventually, the trail may become impassable by OHVs, perhaps prompting the construction of a third trail: another scar on the landscape. More sediment into the creek.

Sediment — dirt, sand, rocks, and other debris caught in water — has big impacts on water quality,



Deeply rutted, flooded OHV trails are the norm in the Hummingbird trail network.
Photo © D. Earl

which in the Bighorn Backcountry is particularly important. The area forms part of the headwaters for the North Saskatchewan River and drinking water for Rocky Mountain House, Drayton Valley, Thorsby, Devon, Edmonton, and Lloydminster before flowing into Saskatchewan. According to the Alberta government's fact sheet about surface water quality management for the North Saskatchewan River, high sedimentation is one of the major water quality concerns that must be addressed.

In addition to providing clean drinking water, healthy headwaters also sustain aquatic life and mitigate how much water flows in the river. Too much sediment in streams can harm and kill fish, in part by clogging their gills. Headwater landscapes play a major role in controlling the flow of water, mitigating drought and preventing floods by storing then

releasing water. This is one reason why it is crucial to maintain intact ecosystems in the Eastern Slopes of the Rocky Mountains, and why the Hummingbird trail network isn't sustainable

MISSING PLANS

OHVs can have a significant impact on the environment, and that's why OHV trails should only be in areas with low susceptibility to erosion, and kept below thresholds that could harm the surrounding ecosystem. The Hummingbird Trail network, with its soft, wet soils, is ill-suited for this type of use. The missing piece of the puzzle is strategic land-use planning, which would enable us to assess which land uses are appropriate for specific areas, and in what volumes.

Alberta has a law that enables the government to plan how lands are used now, and, in the future. Known as the *Alberta Land Stewardship*

Act, passed in 2009, it is also meant to consider the cumulative effects of all activities on the landscape. The province was split into seven regions based on major watersheds, with each slated for a comprehensive regional plan. Those plans were to be followed by more detailed and specific sub-regional plans, capable of establishing limits on human disturbances to protect wildlife habitat and water quality, among other things. But so far, in the last nearly 15 years, only two of seven regional plans have been completed, and there has been minimal headway on completing the remaining regional plans and the associated sub-regional plans. To protect the Bighorn Backcountry, and all of Alberta's sensitive wilderness areas, the Alberta government needs to roll up its sleeves and get to work on these plans. The Bighorn Backcountry falls within the North Saskatchewan region, which is expected to be next in line for a regional plan. But even though the public engagement phase for the North Saskatchewan Regional Plan wrapped up in spring 2018, there has been no word of a draft plan in the five years that have passed since. So, in the meantime, decisions about where to allow high-impact activities like OHV use need to follow the precautionary principle.

While we await the seemingly interminable process of land-use planning, wilderness areas such as the Bighorn Backcountry are in danger. AWA's extensive trail monitoring project from 2004 to 2017 vividly shows the unsustainability of current use of the area. This summer's trip to the Hummingbird Creek trail emphasized the urgency of thoughtful cumulative effects management and science-based decision making, a key missing link in the conservation of Alberta's wild spaces. The fate of the landscapes that we depend upon hinges on making responsible land management decisions now. 🌲



Wind turbines overlook a stretch of cultivated land in Alberta. Photo © M. Bradley

The ideal Transition to Renewable Energy Supply Must be Fair and Just



By Ruiping Luo

As the world works to achieve net-zero emissions, countries are increasingly looking to renewable sources for their energy needs. According to Ember's *Global Electricity Review 2023*, global renewable energy generation reached 39 percent in 2022, and the 2023 *Statistical Review of World Energy* report shows renewable energy generation has grown steadily since 2008. The International Energy Agency expects total renewable electricity capacity to reach 4,500 gigawatts (GW) by the end of 2024 — the total power capacity of the United States and China combined.

Canada, along with the 194 other signatories of the Paris Agreement,

also committed to achieving net-zero emissions by 2050. The federal 2030 *Emissions Reduction Plan* specifically mentions phasing out coal and funding for clean electricity, and Canada's clean energy sector is growing, increasing by 10.5 percent in 2022 according to the Canada Renewable Energy Association (CanREA). In Alberta, where three-quarters of the wind and solar plants in Canada were built last year, 2,848 MW of wind and 949 MW of solar had been installed as of 2022. These projects produce enough electricity to power over 1.2 million households.

Yet, as Alberta's pause on renewable energy projects shows, there are still challenges ahead for renewable

energy development. Transition to renewable energy must be done quickly to reduce emissions, but it also must take into account the environment and the communities where the projects are sited. It cannot repeat the harm caused by the oil and gas industry.

BENEFITS OF RENEWABLE ENERGY

Harnessing renewable energy sources, such as wind and solar, are essential in reducing carbon emissions. Every one percent increase in renewable energy use was found to decrease carbon dioxide (CO₂) emissions by 1.25 percent per capita. Currently, fossil fuels account for over 75 percent of greenhouse gas emissions, and the International Renewable Energy Agency (IRENA) has suggested a transition to renewable energy could decarbonize 90 percent of the power sector by 2050.

Curbing fossil fuel use and speeding up the transition to “cleaner, healthier energy systems” is vital for reducing air pollution and improving human and environmental health. The World Health Organization (WHO) estimated that 99 percent of the world’s population breathed unhealthy air in 2022. Even in higher-income countries, nitrogen dioxide (NO₂) pollution — formed when fuel is burned at high temperatures — is common in cities and often exceeds WHO guidelines. This mostly comes from the engines of cars, trucks and other vehicles burning fossil fuels. In 2018, the WHO estimated that air pollution from fossil fuels caused \$2.9 trillion in health and economic costs.

In addition, renewable energy can improve energy resilience — or how well the electrical grid adapts and recovers from disruptions — and independence, the capacity of a region to generate more energy than can be used. Partially, this comes from diversification: renewable energy comes from multiple sources, and unlike fossil fuels, will not eventually be exhausted. Using

many different sources, along with the batteries and other storage technologies that are common in renewable energy grids, means less reliance on any one source. So, if wind is low and not much electricity is coming from wind turbines one day, we can still get energy from solar, hydro, geothermal or stored energy. Renewable energy can also allow some regions that would normally rely on imported fossil fuels to generate energy from local sources, as wind, solar, hydro or geothermal sources are readily available in many areas, allowing these areas to generate their own power.

In contrast, complete reliance on fossil fuels, like natural gas, can still cause energy shortages, especially in extremely hot or cold temperatures that the infrastructure is unprepared for. In 2023, during a summer with warmer-than-usual temperatures, Alberta issued two grid alerts in less than a week. Grid alerts are issued when the power system is under stress because it is struggling to generate enough energy to meet demand, and emergency reserves may be needed. In this case, the grid alert was caused by several factors, including the loss of approximately 600MW from natural gas generators because of the heat, as reported by the National Observer. When temperatures are too warm, it becomes more difficult to keep generators at their optimal temperature, so they must operate at a reduced capacity and generate less electricity. Similarly, in extreme cold, natural gas can freeze, forcing generators to shut down or limiting supply, as reported in Canada in 2017, 2018 and 2022.

Renewable energy can further improve resilience through decentralization, a change that would also reduce transmission and distribution losses. Unlike fossil fuels, which need to go through complex processing in refineries and be transported over significant distances before becoming usable, renewable energy technologies can

provide power directly. Renewable energy technologies, properly installed and maintained, can more easily provide energy to remote communities, where transport of fossil fuels and safe generator use has historically been challenging, and reduce reliance on a central grid. Having generators close to where energy is needed also reduces energy lost through transportation — an average two to three percent is estimated to be lost for every 1000km of transmission lines, and Alberta Electric System Operator (AESO) calculates loss factors of three to four percent or around 2000 GWh. Decentralizing renewable energy generation would reduce reliance on a central power system, shielding local communities from grid-level disasters, and improving flexibility and reliability.

And finally, renewable energy has economic advantages. Prices for both wind and solar technology dropped dramatically in recent years — between 2009 and 2021, Pembina Institute estimates costs for solar fell by 90 percent and wind by 72 percent. Capital costs, such as installing solar panels or wind turbines, are often the highest costs for renewables, and they generally have low operating and maintenance costs. And, unlike with fossil fuels, there are no fuel costs to keep the generator working. In February, Clean Energy Canada analyzed the cost of solar at \$0.06 per kWh and wind at \$0.05 in 2023, a price already competitive with natural gas at roughly \$0.06. These costs are expected to drop further over the coming decade, while the price of natural gas is likely to increase. Modelling by the Pembina Institute similarly found decarbonizing the grid would save household electricity costs hundreds of dollars, and be 17 to 24 percent lower than 2022 prices. As well, smaller grids can be locally owned, supporting community economic growth, and the transition to renewable energy provides employment, as workers are needed



A solar farm as viewed next to Highway 1 in southern Alberta. Prices for solar technology dropped dramatically in recent years.
Photo © R. Luo

to build and operate generators. Both employment and energy prices are more stable with renewable energy since prices will not spike depending on global markets and fuel availability.

BARRIERS TO TRANSITION

Despite the many benefits transitioning to renewable energy provides, there remain challenges and consequences to increasing renewable energy generation in Alberta.

One difficulty is in the steep, upfront costs of developing renewable technologies. Even though the cost of producing renewables is much lower than a decade ago, designing, developing and building renewables is still expensive, and it can take a while before the economic benefits are experienced. Additionally, while renewables are much less environmentally damaging than fossil fuels, there are still impacts in producing parts and building generators, and this can have devastating impacts on local

communities, including Indigenous communities where materials are sourced, as the *Just Transition Guide* on Indigenous-led climate solutions describes. Particularly for disempowered communities, these costs and consequences can be overwhelming.

For private investors, another barrier to investing in renewables is the risk associated with Alberta's energy market, made worse by the recent decision to pause approvals on new renewable energy projects for seven months. Alberta has a deregulated electricity market and operates as a "fair, efficient and openly competitive market," overseen by AESO, the Alberta Utilities Commission (AUC) and other relevant agencies. Essentially, competitors can buy or sell electricity within the regulations, policies and legislation of the province. The market is affected by government decisions, as with the Renewable Electricity Program that sought bids for contracts to develop

renewable energy, and with the recent pause on new approvals.

As a result of the pause, several international and domestic companies were reported to be reconsidering their investments in Alberta. Dr. Anna Bettini is a postdoctoral research associate at the University of Calgary's Institute for the Humanities whose research focuses on the perceptions and concerns raised around the energy transition. Bettini described the pause as causing a hostile environment to renewable energy in Alberta. The decision, she suggests, is not unlike Ontario's choice to cancel several renewable energy projects in 2019 which, alongside other policies, considerably slowed the renewables market there.

"They understand it's a competitive market," Bettini told me, speaking about the investors and developers of renewable energy in Alberta, "and they do appreciate the competitive market, but they're faced with

another big competitor, which is oil and gas.”

In Alberta, oil and gas is not only a competitor economically; there are politics involved, and renewable energy can lack public support. Bettini points to Alberta’s cultural and historical association with oil and gas, but also to a lack of consultation with communities. Oil and gas, for many, is the industry that built Alberta, but it has also left scars in the abandoned wells and the poisoned land remaining. Many communities fear a repeat of these irresponsible developments, and a lack of meaningful consultation with local communities is a major cause of suspicion. Without strong community support, it can be difficult to build and maintain renewable energy projects.

There are also infrastructure challenges. While Alberta’s energy system has so far coped well with the integration of more wind and solar capacity, the system’s capacity to handle more generation varies across the province. Also, renewable energy projects, especially wind and solar, are by their nature intermittent generators. Power can be wasted if there is a large influx of energy — for instance, on a sunny or windy day — and the infrastructure is not able to handle all the generated energy. There also needs to be other sources of energy available during times of low energy production. Energy storage, such as batteries, can be a solution to the fluctuation in energy, and other sources such as hydro or geothermal can be integrated to help provide power during times of low power. More transmission lines may be needed to improve system capacity, and to reach renewable energy sources, which can be in different regions or have different requirements than fossil fuels. Proactive planning will be needed as more renewable energy sources are incorporated into Alberta’s electricity grid.

Finally, there are the challenges

presented by competing land uses. Renewable energy projects can take up a substantial area, and compete with land needed for industry, housing, roads, agriculture, and wildlife habitat. Particularly in the prairie region, where many wind and solar developments are being proposed, most land is already used for agriculture or to house the vast majority of Alberta’s population. Oil and gas developments are common throughout the region, and very little of the native prairie habitat is undisturbed, making protection of the remaining area vital. A report released by the University of Calgary and The Simpson Centre estimated just over 38,000 acres, or roughly 154 km², are needed to achieve ‘net zero’ by 2035. In comparison, Alberta reported a surface disturbance of 895 km² in 2013 for oil sands mining, not accounting for seismic lines, tailings ponds and other pollution, and natural gas and conventional oil disturbance. Still, renewable energy developments should avoid repeating the mistakes of the past and try not to cause further damage in sensitive habitats and ecologically important areas.

WHAT WOULD AN IDEAL TRANSITION LOOK LIKE?

Some of the barriers to renewable energy development could be eased through policy decisions and a strong framework. For instance, funding or financing programs could be extended to communities struggling with high upfront costs for renewable energy. A few grants and financing options for homeowners are already available through the Canada Greener Homes Initiative and the Clean Energy Improvement Program. These programs could be expanded to improve initiatives for installation of decentralized renewable energy generators. Similarly, policies that encourage renewable energy development and reduce the market risk would help attract greater investment.

As well as investing in renewable energy development, there needs to be investment into Alberta’s electricity infrastructure, and into technologies more broadly. Alberta needs a comprehensive plan for renewable energy, with an analysis of suitable areas and a strong understanding of production and development impacts. This plan must direct power plant placement, aiming to reduce harmful impacts, and clearly outline industry responsibilities to monitor and, where necessary, remediate landscapes. As well, renewable energy technologies are constantly innovating, becoming more efficient in energy production and having better resilience against extreme weather. These technologies need to be incorporated into Alberta’s grid.

Most importantly, the community needs to be involved. Successful renewable energy projects in rural communities were found to consistently have local community ownership, while projects that excluded community voices usually failed long-term. The *Just Transition Guide* similarly states, “Community engagement and relationships are vital” in its key findings. Alberta needs to have meaningful engagement with communities, and ensure that local communities also receive the benefits of renewable energy project.

When I asked Bettini what an ideal transition would look like, she told me it “needs to guarantee justice”: justice for the oil and gas workers trying to transition, for the landowners and farmers and local and Indigenous communities, and for all the other creatures on the landscape. Transitioning to renewable energy brings many benefits, but it must respect the people and other species that work and live on this land. ▲

Hidden Creek: Of Bull Trout, Floods and Logging



By Lorne
Fitch

Bull trout, Alberta's native fish, have swum the province's waters since the last glaciation. With an almost magnetic fidelity, the fish have returned to spawn in Hidden Creek, an Oldman River tributary in southwestern Alberta, probably for thousands of years. Documentation of redds — small pits excavated in the stream bed by female fish to lay their eggs — first started in 1995 and went to 1998. Systematic monitoring resumed in 2008 and has continued annually. I have returned, in late September, for years now to find and count bull trout redds.

Recently I have waded the stream with some trepidation.

Hidden Creek used to be the natal epicentre of bull trout spawning for the Oldman River watershed. Logging over the winter of 2012/13 coupled with a major flood in the spring of 2013 dealt the stream, and bull trout, an almost mortal blow.

Prior to the events of logging and a flood, the redd count hovered around 54 redds per year with a peak of 108. In 2013 post-flood redd numbers dropped slightly, from the average, to 41. From 2014 to 2019 the average dropped to less than 10 redds per



A collapsed sediment fence in Hidden Creek from 2013. Photo © L. Fitch

year, an 80 percent reduction.

Bull trout females are the ultimate arbiters of whether a stream possesses the right stuff for spawning. Many must have voted, with their fins, to take a pass on

Hidden Creek. Where else they went is a mystery since other streams lack consistent monitoring and are also significantly impacted by logging, roading, motorized recreation and random camping.



An inadequate buffer at Hidden Creek in 2013. Photo © L. Fitch

Something about the combination of flood and logging created a perfect storm of changes in Hidden Creek, to the detriment of bull trout spawning. Hidden Creek is not gauged, so the magnitude of the 2013 flood and its relation to other flood events is unknown.

Even after major floods in 1995 (the largest on record to date in the watershed) and 2005 bull trout

still swarmed to Hidden Creek, to take advantage of an abundance of groundwater, clean stream gravels and low water temperatures. Following the 1995 flood there was rapid increase in numbers of redds and although redd counts were not done immediately following the 2005 flood, redd counts were very high three years following that event.

The North Belly River and Blakiston

Creek, both in Waterton Lakes National Park, showed a similar rise in spawning success following the 1995 flood. There is no similar pattern for spawning events after the 2005 flood for these streams.

Comparing bull trout redd counts in Hidden Creek, the North Belly River, Blakiston Creek and Falls Creek (Ram River tributary), there seems to be no consistent and negative effect of major floods on spawning activity or on redd counts.

Flood impacts on trout might include factors such as flood timing, flood magnitude, duration of flooding and flood intensity. For fall spawners like bull trout, many of the factors of a spring flood are of a lesser concern except as they affect the physical elements crucial for spawning success.

A consistent observation from the years following the 2013 flood in Hidden Creek was the lack of suitably-sized gravels for spawning. It was apparent that these smaller gravels had been flushed out of the system, leaving behind only larger rocks and cobble, unsuitable for spawning. Very few of the traditional spawning sites had gravels left and only a limited number of these had evidence of spawning. It appeared that the few spawners left were chasing a limited gravel supply.

Erosion from naturally unstable stream banks coupled with overland flow from logging clearcuts and roads coated the stream substrate with sediment for several years following 2013. Even seven years out from 2013 there was still a sediment supply lingering in pools, where no sediment used to occur. It doesn't take much sediment to start limiting spawning success — the literature suggests as little as ten per cent over natural background sediment levels has a discernible effect.

Too much sediment likely dissuades a bull trout female from spawning. Even if she does, sediment interferes with the successful incubation of trout eggs laid in the gravels. The

interstitial spaces between the gravels are clogged with sediment particles and this can smother the eggs, not allowing an exchange of oxygen-rich water or the removal of metabolic wastes. Trout fry might be unable to extricate themselves from the sediment-impacted gravel.

Bull trout are late bloomers, becoming sexually mature at about age five. If sediment levels inhibit successful reproduction, it sets the stage for fewer trout to mature and return, over time, to their natal stream. Year class failures echo through the entire watershed.

Although there is no discernible effect from flooding on spawning there may be a synergistic one resulting from logging. The effects of logging, especially clearcut harvests, are shown to change the hydrologic response of a watershed.

Removal of the forest canopy, coupled with roads, skid trails and soil compaction from logging quickens the response time of snowmelt and rainfall runoff, sometimes by orders of magnitude. Basically, logging results in more water, delivered more quickly to a stream. This occurs with any level of forest harvest, but more so with large clearcuts. Flood peaks are elevated, and this intensifies the magnitude of a flood event. This translates into more energy for erosion and more sediment flushed into streams.

Since flows in Hidden Creek are not monitored it is difficult to determine to what degree logging increased natural flood flows. What was evident was the three tributary streams, that flow through cut blocks logged in the winter of 2012/2013, showed substantial new channel incisement, or downcutting. The logging road also intersected all of these streams.

Upstream of the logged area, three additional tributaries of somewhat equal size were inspected — none showed any evidence of recent channel incisement. This would seem to indicate that runoff from the logged areas was substantially

enhanced, over non-logged areas, leading to greater erosion.

Hidden Creek upstream of the logged areas did not have the same accumulations of sediment and it did not appear that gravel loss was as extreme as in downstream reaches. Unfortunately, the upper portion of Hidden Creek is mostly unavailable for spawning because a waterfall is a major obstruction.

It's troubling that the tributary streams flowing through cut blocks showed only a perfunctory amount of erosion protection. Unlogged buffer zones were minimal, a few metres in width. Sediment controls, in the form of sediment fences, were either missing, or poorly installed and unmaintained. These were already overwhelmed by large amounts of sediment by the fall of 2013.

Because of concerns over the logging of Hidden Creek, Forest Service staff apparently did regular winter inspections when logging was occurring, but there seemed to be little subsequent follow up to ensure erosion protection was in place and functioning. Self-regulation was ineffective, as was agency oversight.

Conclusions are hard to draw without more empirical evidence, but it seems that logging exacerbated the flood flows of 2013, likely caused a substantial amount of erosion from newly logged cut blocks, and increased the amount of erosion of naturally unstable stream banks. This deposited a substantial amount of sediment in the lower reaches of Hidden Creek and scoured out much of the suitably-sized spawning gravels.

To compound the problem, runoff from an August 2013 rain storm turned Hidden Creek into a muddy soup. Other streams in the area, subject to the same weather event, remained clear indicating that logging had increased the erosion potential substantially in Hidden Creek.

Bull trout spawned in the autumn of 2013, creating forty-one redds.

However, it is unknown whether that spawning effort produced new trout. If incubation was successful, that year class, following sexual maturity should have shown up in the numbers for 2018 and 2019. But they didn't. Subsequent to 2013, redds counts dropped alarmingly, down to one redd in 2019.

Redd counts in 2020 showed thirty-four redds, somewhat of a resurgence, but dropped to nineteen in 2022 and to fifteen in 2023. This is far from the long-term average. It shows the effects of logging can linger and a landscape can hum like an anvil long after the hammer of development has hit. When redd counts drop as dramatically as they have, it's bad news.

Signs of recovery occurred after six years. This is likely related to flushing of sediments from gravel by subsequent high-flow events and the recruitment of new gravels with normal bedload movement. It is easy to leap to a conclusion based on one year of higher redd counts but continued monitoring shows the blip of 2020 has not continued and there is no discernable sign of recovery.

One winter of logging has equated to at least six and probably 10 years of lost bull trout spawning and population recruitment for much of the Oldman watershed. For a species that is designated as *Threatened*, this is a near-mortal blow. It begs an essential question — can sensitive watersheds essential to the survival of trout species at risk be logged without serious impacts on those populations?

Whatever the forest service and the forest sector say, Hidden Creek provides an unequivocal answer. 🌲

Lorne Fitch is a Professional Biologist, a retired Fish and Wildlife Biologist and a former Adjunct Professor with the University of Calgary.

AER Reform or Revolution?



By Phillip Meintzer



The Alberta Energy Regulator currently holds less than one percent of the \$130 billion total estimated reclamation costs for conventional oil and gas cleanup, meanwhile only one square kilometre of Alberta's oilsands (pictured) have been reclaimed to date.

Photo © P. Meintzer

The Alberta Energy Regulator “is a joke, a complete joke” according to Chief Allan Adam of Athabasca Chipewyan First Nation (ACFN). Chief Adam made this statement back in April 2023, during a parliamentary committee hearing in Ottawa following news that a tailings pond at the Imperial Oil-owned Kearl oil sands mine had been leaking for nine months without any notification from either Imperial or the Alberta Energy Regulator (AER). But he’s not the only one ringing the alarm bells. There seems to be growing concerns over the AER’s ability (or lack thereof) to effectively regulate Alberta’s fossil energy industry.

Mounting evidence seems to show the AER operates without sufficient public transparency and has vast discretionary powers. Rather than serving the best interests of Indigenous communities, the environment, and the public at large, the agency seems to be held captive by industry interests. Criticism of the AER seems to have voices from all angles, calling for either large-scale reforms or dismantling the regulator altogether. In any case, the time for change is now.

THE KEARL INCIDENT LEAK REVIEW

In February 2023, 5.3 million litres of toxic oil sands wastewater (known as tailings) spilled from a storage pond at Imperial’s Kearl mine. Following this news, the AER also issued a public notice stating that significant volumes of tailings had been leaking at the Kearl mine for nearly nine months, since at least May 2022. Neither the AER nor Imperial notified any of the Indigenous communities within whose territories the Kearl mine is situated, nor any downstream communities while this leak was happening. These communities include ACFN as well as Mikisew Cree First Nation (MCFN).

Results of an independent, third-party investigation into the AER and how it handled the Kearl incident, published in a report by consulting firm Deloitte in September 2023 raised major concerns over the AER’s internal policies. It found, based on procedures performed by AER during the Kearl incident, AER had followed protocol. It also found AER’s policies, standards, procedures, and manuals for emergency response, incident reporting, and investigation contain dated information and guidance,

and are not in line with the “C&IR Framework and/or the expectations of external stakeholders interviewed.”

If allowing a leak to proceed for nine months without informing potentially impacted Indigenous communities doesn’t violate any of the AER’s own policies, then it necessarily follows that the AER’s policies are woefully inadequate. The results of this investigation can only reinforce our concerns that the AER cannot be trusted to make decisions in our best interest. Broad, sweeping changes are needed immediately to address this problem.

More news broke in October when evidence surfaced that AER knew Kearl’s tailings ponds were seeping into groundwater as far back as 2019/20. Despite this evidence, the AER and Imperial again conspired to hide this incident from the public, choosing to manage the issue internally. It’s another demonstration of transparency issues, and, in this case, to the benefit of an oilsands company that avoided the public spotlight for leaking toxic substances into the environment and Indigenous traditional territories.

HIDDEN SCOURGE

In 2021, Alberta-based ecologist and author Kevin Timoney published *Hidden Scourge: Exposing the Truth about Fossil Fuel Industry Spills*. In his book, Timoney discusses his analysis of more than 100,000 spills caused by the fossil fuel industry across Alberta, Saskatchewan, the Northwest Territories, Montana, and North Dakota. His analysis addresses several key issues such as the misinformation from oil and gas corporations, and misreported or underreported data. It also touched on the regulatory capture of the AER, which is when a regulatory body is coerced into acting in favour of private interests within the industry it is charged with regulating.

The data collected and presented by Timoney showed that in Alberta there was an average of 1.9 oil spills and 1.7 saltwater spills per day between 1975 and 2018, which accounted for approximately 290,578 and 979,849 cubic metres of oil and saltwater respectively. Those numbers only represent the spills that industry has self-reported. Timoney's investigation originally kicked off because he noticed spill volume data reported by the AER exactly matched the reported recovery volumes. Somehow every drop of spilled oil had been miraculously recovered, despite the near impossibility of that task. Something suspicious was taking place in spill reporting between the energy companies and the AER.

Timoney's investigation and the publication of *Hidden Scourge* helped to provide a detailed track record of the AER abandoning its duty as a public regulator by neglecting to sufficiently monitor industry operations and/or fine companies when spills occurred. Meanwhile, Alberta's wilderness ecosystems, Indigenous communities, agricultural producers, and the public at large have been left to deal with the destruction and contamination that industry has left behind because of the AER failing to meet its obligations as a public regulator.

A MADE-IN-ALBERTA FAILURE

A new report published in October 2023 by the University of Calgary's School of Public Policy describes Alberta's policy on inactive oil and gas wells as a "massive regulatory failure characterized by a historical lack of transparency, excessive regulatory discretion, and regulatory capture." This report, titled *A Made-in-Alberta Failure*, was co-authored by three lawyers — Drew Yewchuk, Shaun Fluker, and Martin Olszynski — with expertise in Alberta's environmental law, and it focused specifically on the topic of unfunded [conventional] oil and gas closure liabilities in the province.

The authors reviewed Alberta's 2020 *Liability Management Framework*, which is the current policy intended to deal with the problem of closure work (including remediation and reclamation) for oil and gas wells that are inactive and orphaned. Wells are classified as orphans when there is no owner or licensee, which typically happens due to insolvency of the previous owner.

As of July 2023, there are approximately 230,000 drilled wells in the province that need to be abandoned and reclaimed, with an additional 90,000 other wells that have already been abandoned but are still not reclaimed. That's 320,000 wells total that need to be reclaimed and the numbers reported likely underestimate the true size of the problem. Official — yet, likely unreliable — closure liability estimates are at least \$60 billion, but in 2018, internal estimates from the AER were leaked to the public claiming that the real number was closer to \$130 billion. Using just the lower number of \$60 billion, the AER currently holds less than \$295 million in closure liability security, which would be only 0.49 percent of the total estimated reclamation costs. Less than one percent.

Essentially, almost all this closure liability is currently unfunded. That's because Alberta has failed to require

oil and gas licensees to post adequate security to cover these costs, or neglected to use other financial tools to ensure that funding will be available so that industry can cover the cost of reclamation. The authors describe the liability framework as being unlikely to uphold what's known as the "polluter-pays principle," which typically holds that the individual or entity who causes environmental pollution should be responsible for cleaning it up. As a result, the report states that the framework is likely going to be ineffective at reducing the number of orphan or inactive sites.

The report emphasizes that the history of Alberta's approach to managing its orphan well problem — including the 2020 liability framework — has consistently been hampered by the persistence of three key factors. 1) A lack of transparency, where the problem has been permitted to grow in the absence of public scrutiny. 2) Excessive discretion from the regulator, with an absence of binding targets or timelines for closure work, and 3) Regulatory capture. The evidence presented shows that the AER has prioritized its relationship with the oil and gas industry over accountability to the public, and that the liability framework has been designed to meet industry's goal of minimizing costs (and therefore maximizing profits), rather than meaningfully addressing cleanup.

And it's important to remember that this U of C report only focused on Alberta's conventional oil and gas reclamation liabilities. Meanwhile, only one square kilometre of Alberta's oilsands mining footprint has been certified as reclaimed to date, according to the AER. The authors of this report are currently working on another assessment which will focus specifically on oilsands reclamation to be released in the coming months.

MONITORING SHORTCOMINGS

The failings of the AER to regulate the energy industry are concerning enough in isolation, but especially so

when the program set up to monitor the impacts of oil sands activities seems broken as well.

The operational framework agreement for the joint Canada-Alberta Oil Sands Monitoring Program (OSM Program) was signed in 2018, with the vision of establishing: “An integrated monitoring, evaluation and reporting system inclusive of and responsive to Indigenous Communities, that includes the acquisition and reporting of regional and sub-regional data on baseline environmental conditions, tracking any environmental impacts, and the assessment of cumulative environmental effects from oil sands development to inform management, policy and regulatory action and respects potential impacts to section 35 Rights.”

This agreement includes a list of objectives, desired outcomes, and actions to meet those outcomes. Among the objectives is to ensure transparency by “timely public reporting through accessible, comparable, and quality assured data and information, reports, and publications evaluating, interpreting and synthesizing the monitoring results of the OSM Program.” Some of the desired outcomes are to report on the environmental impacts of oil sands development, including cumulative effects, to provide information to decision-makers and others, and ensure data and reporting is accessible in an open, transparent, and timely manner.

Despite these noble objectives, the last annual report for the OSM Program was published in September 2019, more than four years ago. That’s more than four years since the program last provided a comprehensive update for decision-makers and the public on the findings of important monitoring in Alberta’s oil sands region.

The completion and dissemination of these reports are crucial for understanding the cumulative effects of oil sands development

within Alberta’s oil sands region. Reporting delays mean that monitoring results cannot be acted upon in a timely manner, which is a crucial component of adaptive monitoring. Especially if the environment is showing signs of deterioration.

Adaptive monitoring or adaptive management is an iterative process for continually improving management through long-term monitoring. In this process, an adaptive program would learn from existing research and the outcomes of prior monitoring to improve future management. This is only possible if the collected data can be analyzed or mobilized in an effective manner. Without the release of timely oil sands monitoring reports, it’s hard to know whether adaptive management within the OSM Program has been successful or not.

These reporting delays seem to echo the previous evidence we have highlighted which demonstrate a lack of transparency across Alberta’s energy sector and the institutions put in place to regulate it. A lack of up-to-date monitoring data means that decision-makers are left without the knowledge needed to inform important policy decisions, while the public is kept in the dark about the environmental impacts of oil sands operations.

MINERAL MINING INCOMING

There has been a recent shift globally towards decarbonization and large-scale [green] electrification to mitigate the worst impacts of human-caused climate change. Given this transition, Alberta is currently trying to position itself as a “preferred producer” or metallic and industrial minerals (e.g., lithium) on the international market, much like we have done with oil and gas. As part of this push to become a global leader in mineral production, the Government of Alberta has recently shifted the responsibility for the management and regulation of

minerals under the purview of the AER.

If we want to ensure that Alberta doesn’t repeat the same mistakes with mineral mining as we have with our mismanagement of the fossil fuel industry, then the AER should be reformed as soon as possible before the mineral mining “Gold Rush” really kicks off in Alberta as global demand continues to increase to meet the needs of electrification across the world. Otherwise, we may be left with even more across Alberta’s landscape from another industry that we have failed to regulate in any meaningful way.

WHAT NEXT?

We have barely scratched the surface, yet hopefully, it is already evident that something needs to be done for us to even begin thinking about addressing the problem of oil and gas regulation in Alberta. Would reforming the AER go far enough? Is there any guarantee that a hypothetical future regulator wouldn’t continue to prioritize the profiteering of oil and gas companies at the expense of Albertan taxpayers, the environment, and the Indigenous Communities who have lived here since long before these colonial institutions were established? We should not be satisfied if changes only amount to a rebranding of the AER without overhauling the structural power imbalance that permits them to operate in secrecy for the benefit of private interests while polluting our rivers and destroying our landscape.

At a news conference in August 2023, more than 20 chiefs from Indigenous Communities across Canada’s prairie provinces expressed their intent to challenge Canada’s Natural Resource Transfer Agreement (NRTA), which was signed in 1930 and subsequently granted provincial governments exclusive control over [most] natural resources within their jurisdiction. First Nations were excluded from

this agreement at the time of signing, and the current chiefs are claiming that this agreement was (and is still) unlawful and represents a threat (or violation) of their inherent, Treaty, and Constitutional rights. These communities are demanding a share of the land and resources as promised by their Treaty agreements, but a challenge to the NRTA could ultimately throw into question the provinces' exclusive domain over natural resources, which isn't necessarily a bad thing. It could present an opportunity to pursue an alternative solution to the lack of energy regulation in Alberta.

That solution could be nationalization. Nationalization is the process of turning privately owned assets into public assets by bringing them under state control. In Canada these are known as crown corporations, and they include institutions such as Canada Post and the Canadian Broadcasting Corporation (better known as the CBC). Petro-Canada is an example of a crown corporation that was created by our federal government in reaction to the oil crisis of the 1970s, and it was intended to retain a greater share of energy revenues for Canada at a time when most of the money was flowing into the hands of American corporate interests. Unfortunately, in 1991, the Mulroney government decided to privatize Petro-Canada, and as of 2009 it has been majority owned by Suncor.

Nationalization wouldn't be guaranteed to eliminate all the problems of energy regulation by any means, especially when considering Indigenous Rights given the deep history of colonial oppression and active genocide imposed on Indigenous Communities by the settler-state of Canada. However, it would theoretically enable Canada to manage (or even scale back) oil and gas production in a way that's in line with our many international climate and biodiversity commitments rather than just hoping Alberta and

energy companies comply with federal policies. There are examples from other jurisdictions across the world where nationalization (or re-nationalization) has been accomplished with varying degrees of success.

Bolivia's oil and gas industry was privatized in 1996. However, after a prolonged period of economic stagnation, the hydrocarbon industry was re-nationalized in 2006 by newly elected president Evo Morales. To do so, he re-founded a state-owned enterprise and used it to purchase a majority of shares in private oil and gas corporations operating within the country. This meant that foreign natural resource companies in Bolivia were forced to turn over a larger portion of extracted resources to the state, as well as a greater proportion of their revenues. Under Morales' regime, by increasing state sovereignty over economic policy, Bolivia was able to dramatically increase spending on public social programs by redistributing these revenues. By re-nationalizing the industry, the Bolivian government were enabled to increase spending on social programs — with a percentage of hydrocarbon revenues dedicated to universities, Indigenous groups, and low-income residents. In addition, the state now had greater control in the extraction, production, sale, distribution, and transportation of its own natural resources. This is a blueprint that Canada could follow.

I recognize that we live in a world — or at least in a country — where the free-market reigns supreme. And we also live in a province that's ideologically anti-government (especially anti-federal government) to the extreme. But if we need a more effective way to regulate the oil and gas industry in Alberta with greater public accountability, then maybe we could shift the narrative away from a rebranded AER and towards demanding the larger project of nationalization for the industry. Especially if there are

already demands being made by Indigenous leadership across the country to revoke the legislation that put control over natural resources in the hands of the provinces in the first place.

There's no doubt that the AER needs to be dismantled. But, regardless of the path we choose any changes that are made to the way that energy is regulated in Alberta (or even Canada as a whole) must be oriented in a way that recognizes, upholds, elevates, and/or prioritizes Indigenous Inherent, Treaty and Constitutional Rights. Thinking back to the Indigenous challenges to Canada's Natural Resource Transfer Agreement, if the establishment of the NRTA is seen as having violated Indigenous Rights, then the AER can be understood as a byproduct of this violation which would never have existed had the provinces not been handed resource jurisdiction. But, as I have learned from my Indigenous colleagues, it's also important for us to seek to reshape the world beyond the colonial conception of rights as we know it, and towards a new system (or relationship) based around our collective responsibilities for stewardship and sustainability as part of the broader earth ecosystem of which we play a part. The colonial system of my rights versus your rights is what got us into this mess in the first place, and based on the evidence provided, the AER has functioned in a way that has prioritized the privately held rights of corporations [for the extraction of natural resources] over the rights of Indigenous peoples and the [non-existent] rights which settler society has long denied to natural ecosystems. This means that whatever regulatory institution replaces the AER, if any, it needs to operate in a decolonial way that genuinely ensures a sustainable relationship between human activities and the non-human world. 🌱

Then They Wrote it All Down as the Progress of Man

In 1971, American singer-songwriter John Prine made his debut in folk and country music, with a self-titled album with the song *Paradise*. Widely covered and deservedly praised, the bluegrass tune was written in dedication to Prine's father and recounts a painful history from his hometown in Muhlenberg County, Kentucky, where strip mining for coal devastated the surrounding environment and community.

The county is within the Appalachian Mountains, North America's oldest mountain range. Compared to the striking, jagged peaks of the Rockies, these mountains are a series of densely forested and time-worn ridges and valleys. They also contain major coal deposits. The storied history of mountaintop removals and open-pit coal mines in Appalachia has been directly linked to higher rates of environmental pollution, illness, poverty, and mortality borne by nearby communities and people for centuries. As mountainous elders on our landscape, I can't help but hear their precautionary tale reverberate through Prine's song; a clear and explicit warning to their younger Rocky Mountain relatives.

Coal has a shorter, although similarly controversial history in Alberta. Long our main energy source, in 2015 the government committed to phasing out all coal power generation by 2030. We are on track to meet that target six years early. While the province no longer intends to burn the high-emission fuel,

the 2020 removal of the 1976 *Coal Policy* indicated the government's intention to expand the areas available along the Rockies' Eastern Slopes to mine coal. Met with immediate and widespread public outcry, the years that followed held many hard-fought battles and extensive consultations, and ultimately produced the moratorium on coal we have today:

"Albertans expect coal exploration and development in the Eastern Slopes to remain suspended until such time as sufficient land use clarity has been provided through a planning activity ... No exploration or commercial development activities related to coal will be permitted"

— Ministerial Order 002/2022

Unsurprisingly, it came with exceptions. Four "advanced projects" were allowed to continue through the regulatory process including: Benga Mining Ltd.'s Grassy Mountain Coal Mine, Montem Resources Tent Mountain Mine, Coalspur's Vista Mine Expansion, and Summit Coal Inc.'s Mine 14.

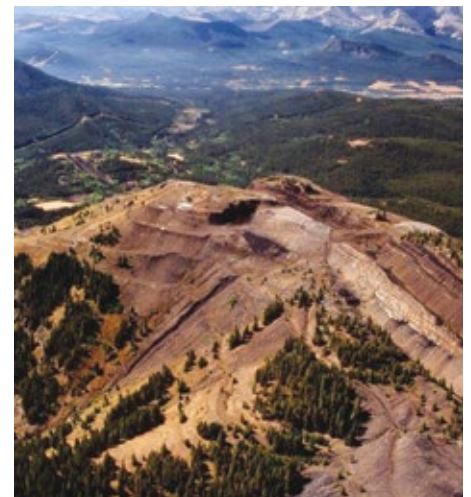
For a time, three out of these four had been outright rejected or effectively stalled. A joint review of Grassy Mountain by Environment and Climate Change Canada (ECCC) and the Alberta Energy Regulator (AER) deemed the project unfit to continue and "not in the public interest." Appeals by Benga were rejected by top courts. Following their defeat and likely smelling blood in the water, nearby Montem Resources quickly retracted their coal application and is now attempting to pivot plans to become a renewable energy complex. Vista Coal Mine progresses slowly, currently caught up in court over a federal impact assessment. Summit Coal Inc. was the last company standing.

In late July of this year, the company submitted applications to AER under the *Environmental Protection and Enhancement Act* and *Water Act*, for the purposes of coal mining at its Mine 14 site, northeast of Grande Cache.

AWA prepared a detailed statement of concern (SOC) in response, requesting AER to deny the application on economic, environmental, and societal grounds.

That should have been the end of coal applications, at least until the completion of necessary subregional management plans under the Alberta Land Stewardship Act, as dictated by the ministerial order. But apparently the interest of millions of Albertans doesn't quite measure up to the ego of one snubbed billionaire (Duh Kennedy! Billion > million). Since August, the Alberta Lobby Registry's records show the provincial government has been intensely lobbied by allies of Gina Reinhart, Australia's richest person and majority owner of Hancock Prospecting, Benga's parent company. So, when Benga rebranded to Northback Holdings and submitted a new application for an exploratory drilling permit on Grassy Mountain, I concede I should have interpreted the ministerial order in the strangest, least sensible way possible and not been surprised that the AER accepted it for review.

This is all to say, you may have noticed AWA's been busy over the last few



Aerial view of Grassy Mountain in 2010. Considering the state of regrowth multiple decades after this area last saw mining, the scars should be heeded as a warning; there's no rebuilding a mountain.

Photo © AWA.

months raising our environmental concerns over various mining projects through the province's regulatory processes, and we have some updates.

At the start of November, we submitted another statement of concern over CST Canada Coal Ltd.'s application to extend the depth of their coal mine near Grande Cache. In the last year, the company's mining operations had three incidents involving the release of waste into the environment. CST became the subject of two ongoing, unresolved investigations; one for allegedly failing to immediately report a release of a substance and another for not complying with an AER term or condition.

Shortly following our submission, another incident occurred; due to wall instabilities, one worker and the excavator they were using became partially buried by falling rubble in CST's mine. While they thankfully walked away unharmed, CST should have to demonstrate they have new

standard operating procedures in place that address the root cause of these incidents and prevent their occurrence in the future. For these reasons and more, AWA requested AER complete the outstanding investigations of CST Canada Coal Ltd.'s operations and management before reviewing the company's application and carefully consider whether approval of any further coal development in the province is in the public's best interest and compliant with their mandate.

Speaking of AER, they have yet to address our SOC's on Summit Coal's Mine 14 development project and Northback Holding's Grassy Mountain exploration project. We did however get two different but equally disappointing letters from the companies involved; Summit challenged everyone's participation in the process, apart from Aseniwuche Winewak Nation, who AER insists have been sufficiently consulted with and should be bound by their previous support for the project, which

was given all the way back in 2009. Northback largely argued that every concern raised by AWA was outside of their project's scope, and that they have many signatories on a local petition of support for their coal exploration project. Note that the exploration phase of mining development is not the profitable stage and can result in significant damage to the environment and reclamation liabilities.

The logging required to make access roads fragments habitat and exposes the shallow montane soils to erosion and colonization by invasive species. Exploratory roads become sources of sediment, washing downstream rivers and creeks during precipitation events, negatively impacting aquatic habitat and watershed health. Considering insurers are becoming increasingly hesitant to fund coal companies and Grassy Mountain has repeatedly been deemed inappropriate for actual coal development, it is unclear how Northback intends to recoup costs.

It is encouraging to know AWA has not been alone in any of this; our statements have been joined by many other citizens, communities, organizations, and towns concerned about the ramifications of more coal mining in our mountains. You can support this effort by writing to your government representatives and letting them know your thoughts on the continued coal exploration and development in the province. A template can be found on our website. As we wait for the regulatory bodies to make decisions and provide some clarity, I am once again reminded of Prine's evergreen warning:

***Then the coal company came
with the world's largest shovel
And they tortured the timber
and stripped all the land
Well, they dug for their coal till
the land was forsaken
Then they wrote it all down as
the progress of man.***

- Kennedy Halvorson



Cartoon by Sandra Mills

Selling Public Lands Should Not be Shrouded in Secrecy

Sales of public land, also known as Crown land, have long been a concern for AWA, particularly when these sales result in the conversion of native habitat for crop farming or development. Previously, these sales have often happened without public consultation, and with a tendency to surrender precious natural landscapes in favour of agricultural or industrial uses, with little public input.

To understand public land sales in Alberta, we reached out to the Alberta government's Public Lands Disposition Management department, which sent their records of public lands sales

in Alberta since 1990. These records were incomplete, with dates, areas or locations of sales missing. Overall trends show a decline in sales of public land since 2011, a result AWA finds encouraging. However, where sales have occurred in recent years, they have often been focused on the grassland region, an area that is already severely underrepresented in protected areas, and where the majority of Alberta's species-at-risk populations are found. AWA's vision is for public lands and the services they provide to be maintained in perpetuity, and the sale of public lands, especially lands containing native habitat, does not agree with this vision.

Over 60 percent of Alberta is managed as public land. The province has repeatedly stated that Crown lands are for the benefit of all Albertans, and, according to the Crown Lands Vision, include parks and public lands "managed by government for all Albertans and Indigenous peoples, now and for generations to come." Yet, the management of these lands is often obscure, and the public has little influence on their use. Frequently,

in grasslands and forests and many other valuable habitats, we have seen economic gain — through grazing, crop farming, forestry, oil and gas, mining and other industrial development — take precedence over conservation values.

Native ecosystems, the undisturbed landscapes on public and private lands provide habitat for a variety of rare and endangered species, and they often also help to filter toxins, stabilize soils and store carbon. These benefits are lost when lands are converted for cropland or industrial development. To reduce further loss and protect the remaining landscapes, we need strong policies that prioritize biodiversity and long-term conservation over short-term economic gains. An overarching public lands policy that is transparent, accountable and includes significant and diverse public input is long overdue, and is sorely needed to manage this precious public resource in a manner benefiting all Albertans.

- Ruiping Luo

A Look at the Great Plains

On November 29, the Great Plains Conservation Network held its 2023 Annual meeting over Zoom. While we hope to eventually return to meeting in-person, these virtual meetings are valuable as they allow a wider variety of people to attend. This year's meeting welcomed about 50 participants and featured presentations from across the Great Plains.

AWA has been a key member of the Great Plains Conservation Network (GPCN) since its inception and, previously, part of the Northern Plains Conservation Network. For the last couple years AWA has provided administrative support to

the GPCN through a coordinator position, generously funded by Defenders of Wildlife.

The bison and prairie dog working groups presented updates from the past year, as well as sharing their priorities as we move into 2024. The Prairie Dog Working Group has been focused on finding ways to utilize the Homes on the Range mapping project to create on-the-ground conservation action. Plague management will be key as we reintroduce prairie dogs to the most suitable habitats. As they move into 2024 their focus will be identifying the best locations and regions for prairie dog habitat and how we can move forward to conservation, including making a list of potential conservation actions.

Support for bison conservation is taking hold south of the 49th parallel

and there has been lots of work on the Yellowstone bison management plan as well as in the Charles M. Russel Wildlife Refuge, where groups are working towards meaningful opportunity for co-stewardship with First Nations. Jason Baldes gave us insight into how First Nations are working to bring back this culturally and spiritually important animal back to tribal lands, and how this is an act of reconciliation as well as conservation. In 2024 the working group will work to bridge the gap between traditional knowledge and western science in order to create meaningful connections for on-the-ground bison restoration efforts. The Continental Strategy Bison Working Group will follow in the footsteps of Homes on the Range by creating mapping layers of key conservation

areas where we can maximize conservation efforts for bison.

We were thrilled to welcome several guest presenters. Libby Khumalo from the Buffalo Nations Grassland Alliance spoke about their work to support the 16 nations to act on their land management. Their work focuses on ecosystems as a whole and ensuing tribal wildlife programs have resources to be implemented at scale. BNGA's

goal is for 30 percent of tribal land to be held under native-led conservation.

Daniel Kinka from American Prairie and Henry Pollock from Southern Plains Land Trust (SPLT) gave presentations on how their organizations are working to rewild great swaths of grassland in the Northern and Southern Great Plains respectively. It was truly inspiring to hear about the on-the-ground work happening to purchase and conserve

vast tracts of contiguous grassland. American Prairie's goal is to have 5,000 bison on 3.2 million acres of grassland and eventually reintroduce black-footed ferrets to their properties.

SPLT has been utilizing carbon credits to support conservation and have 60,000 acres protected, including their flagship property, Heartland Ranch, where 65 ferrets were released in 2022-23.

- Lindsey Wallis

Time to Ensure that Mine Operators — Not Albertans — Cover Looming Clean-up Costs

Alberta's actively mined oil sands and coal areas continue to grow. Demand and price forecasts make the duration and profitability of these mines increasingly uncertain. As University of Alberta economist Andrew Leach noted in a 2022 paper: "There should be no question that global action on climate change has and will continue to dramatically affect global oil markets and outlooks."

By law, Alberta bitumen and coal mining companies are obliged to pay the clean-up costs of their disturbed and contaminated mine sites. Alberta's Mine Financial Security Program (MFSP) is supposed to ensure the government collects enough cash (or financial equivalents) from

mine operators, in case one or more operators cannot or will not pay, so that Albertans aren't left with massive clean-up bills. However, there are far too many holes in MFSP to assure this.

MFSP started in 2011, replacing earlier programs. In 2015 and 2021, Alberta's Auditor General reported program deficiencies that have still not been addressed. In 2021, Alberta Environment and Protected Areas (EPA) announced an MFSP review and received comments well into 2022. Indigenous rights holders, environmental lawyers, non-government environmental groups including AWA, and the 2021 Alberta Coal Policy Committee, among others, have outlined substantial concerns. In November 2023 AWA received confirmation from EPA that the financial security program review is still ongoing.

OPAQUE LIABILITIES

MFSP liabilities are the costs government would need to pay a third party to remediate and reclaim each mine project's current footprint. The Alberta Energy Regulator (AER) publishes an annual lump-sum total of MFSP liabilities, which was \$47 billion in 2023. However, back in 2018, the energy regulator's internal estimate of oil sands mine clean-up liabilities was \$130 billion. This information was made public by journalists via a *Freedom of Information and Protection of Privacy Act* request to the province. As Albertans are potentially exposed to these costs, we deserve better disclosure. For operator accountability,



A birds-eye view of the oil sands operation in northern Alberta.
Photo © P. Meintzer

AER should publish MFSP liabilities by mine, including key components such as tailings remediation, watershed and wetlands re-construction, ongoing monitoring, and contingencies.

LOW OIL SANDS SECURITY DEPOSITS

Oil sands mine operators have elected MFSP's asset-liability "risk-based" approach. As of September 2023, only \$913 million is held by the Alberta government in security deposits against oil sands MFSP liabilities. That's precisely \$1 above the security held in December 2010 at MFSP inception. Meanwhile, the total active bitumen mine footprint has grown seven-fold, from 144 km² in 2010 to 1,055 km² in 2020, the latest figures available.

MFSP requires more security if an operator's MFSP assets are below three times its liabilities. However, as Alberta's Auditor-General has pointed out, MFSP calculations overstate assets by underestimating future price decline impacts, by valuing "probable" and "proven" reserves equally, and by not discounting future cash flows.

MFSP logic is that an operator will pay remaining reclamation liabilities

to government between 14 and five years before "end-of-mine" life. MFSP also allows inappropriate allowances to extend end-of-mine life, such as combining mine leases.

This back-end-loaded financial collection is far too risky. It defies common sense that investors will choose to pay billions in clean-up costs long after a mine's main profit-earning years are over. They are only likely to do so if their anticipated returns outweigh their reclamation costs; otherwise, they are likely to default on these obligations.

Rather than tinker with a flawed asset-liability approach, MFSP should require that operators post full financial security to match their transparently costed current reclamation liabilities. There could be transitional steps, but it is urgent to achieve this shift while oil sands corporate earnings remain high.

COAL-SPECIFIC REFORMS

Most coal mine operators have elected to provide "full funding" of their MFSP liabilities. However, the public is still exposed if these liability estimates are too low. In its 2021 report, Alberta's government-appointed Coal

Policy Committee identified "concerns that the MFSP is insufficient." These concerns included that "remediation and reclamation responsibilities for some coal mining projects, such as Smoky River Coal, have been assessed independently as exceeding current financial security," there's "very little audit activity" of other coal mines to ensure adequate financial security, and unclear responsibility for coal exploration and development reclamation liabilities. They suggested Alberta consider a mine funding system specifically for coal mines.

The looming probability of defaults under Alberta's opaquely costed and poorly funded MFSP grows ever more urgent to address. Quebec and Yukon governments each require full mine financial security to be collected for mine reclamation; Alberta should catch up. For all Albertans, and in particular the Indigenous rights holders most affected by the long-term impacts of these mines, Alberta must reform MFSP requirements to ensure that the government holds full financial security for mines' incurred clean-up liabilities.

-Carolyn Campbell

A Year Measured in Adventures



By Lindsey Wallis

What images come to mind when you think of Wild Alberta landscapes? Is it the majestic Rocky Mountains, with their jewel-hued lakes and imposing limestone peaks? The ochre

and terracotta shades of the badlands dotted with wildflowers and dinosaur bones? Towering clouds scudding across an endless prairie sky? Or perhaps it is a wild place closer to home. A neighbourhood pond that is home to muskrat and beaver? Or an urban forest filled with songbirds?

This year's Adventures for Wilderness program explored all these places, accompanied by experts who shared their knowledge in a wide array of fields, from geology to botany to bats and beyond. We were thrilled to share these experiences with almost 400 participants this year.

Our 2023 adventure season started early, with snowshoeing in Fish Creek, hiking along snowy Waiparous Creek, cross-country skiing, and skating. As winter began to release its grip on the sun-kissed south-facing slopes

of Nose Hill, an avid group of adventurers braved a chilly, windy day and went hunting for crocuses — one of our favourite signs of spring.

April brought a stair climbing challenge, which raised over \$1,000 for our Adventures for Wilderness program, and participation in the City Nature Challenge, where citizen scientists used their phones to capture birds, plants, and even an amphibian.

During the May Mum Days Challenge, mums challenged themselves to leave their kids and partners at home and find time for themselves in nature. Some truly #RadMums organized events including nature walks, a sunset hike, and a rock-climbing day.

Spring flowers exploded in June. We enjoyed undulating fields of pink geranium and purple lupin along



Adventures by the numbers in the 2023 season. Graphic by L. Wallis

the Milk River Ridge. Vibrant orange wood lilies and amethyst thistles glowed in the dappled sunlight of the stunted aspen forests in the Wainwright Dunes. And as the birds returned this spring, new bird-watchers visited Frank Lake to learn the basics of this popular pastime.

This summer and into the fall brought a wide variety of adventures, from exploring different corners of the Ghost Wilderness to discovering fossils found right here in the city. Adventurers biked up Plateau Mountain and traversed ridges in Kananaskis and the Whaleback.

Sometimes, the best way to understand the threats facing Alberta's wilderness is to experience these places first-hand. This year we explored threatened landscapes such as the Rosebud Valley, where we learned about the imminent threat posed by a proposed racetrack development, and Big Hill Springs Provincial Park, whose iconic springs are vulnerable to the effects of a gravel mine being constructed less than a kilometre from the park's border. Our Oldman Off-Trail, an adventure was supposed to be a lighthearted fall romp along the Oldman River, but also held some dark foreshadowing. From our viewpoint upstream, the reservoir appeared as a sea of silt, with a sickly stream trying to wend its way through a deep channel in the expanse of mud. An ominous portent of

things to come as climate change intensifies and we continue to mistreat our headwaters. AWA staff also adventured to McClelland Lake where they experienced its unique landscape on the water and in the air.

We are always so grateful for the knowledge of our volunteer coordinators. This year we welcomed some new faces, including beaver expert Kirby England who accompanied us on a paddle along the Sturgeon River, Susan Holroyd who opened our eyes to the bats in our own backyard, and Isaac Peetoom Heida who shared his knowledge of butterflies and botany on two different Kananaskis adventures.

We were also thrilled to partner with organizations who share common goals, including Save the Rosebud, Elbow River Watershed Partnership and Bighill Creek Preservation Society, each of whom gave us great insight into the conservation issues that are important to them.

Our participants are often experts in their own right. On our hike up to the Mockingbird Fire Lookout we had a past lookout attendant who brought along an old photo album from his time at the Mockingbird lookout, as well as great stories to share. And on the Milk River Ridge adventure, Bette Beswick brought her passion for bumblebees and beetles to share, along with her net.

And of course, we are so grateful for

our coordinators who have been with us since the inception of the Adventures for Wilderness Program. These include Tako Koning, Heinz Unger, Chris Saunders, Cliff Wallis, Nathan Schmidt and Jaimie Jack.

This year we had two solo fundraising adventures. These are special adventures where individuals set themselves a challenge and raise money for AWA in the form of sponsorships. Jim Campbell and Bob Patterson took part in their fourth annual "Don't Let the Old Man In" Adventure for Wilderness. They traversed the highest maintained trail in Canada, Centennial Ridge, and raised more than \$5,500 for wilderness conservation.

On the other end of the age...um... experience spectrum, seven-year-old Karina Eustace-Wallis challenged herself to climb eight peaks before she turned eight on Sept. 8, and raise \$8,000 for AWA. Not only did she succeed in reaching eight summits, she raised more than \$10,000 and was featured on CBC Radio's "The Eyeopener." (You can read more about her adventure in the Fall 2023 Advocate).

Thank you to everyone who came out on an adventure this year and to everyone who donated. This program is only possible thanks to generous donations, both of time by our volunteers and money by our supporters. If you wish to contribute to the Adventures for Wilderness program you can do so on our website or by calling our office.

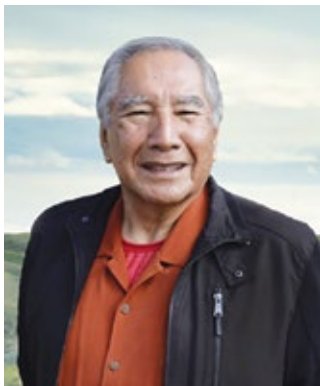
Happy Adventuring! See you in 2024!

Do you have an idea for an adventure? Set yourself a goal and raise money for conservation! Or share your area of expertise with others. Reach out to a4w@abwild.ca for more information on creating your Adventure for Wilderness.

Meet Our 2023 Award Winners

Wilderness Defender Award

Each year, AWA presents the Wilderness Defender awards in recognition of the outstanding, dedicated contribution these individuals give Alberta's wilderness and wildlife. This year's recipients are:



Dr. Leroy Little Bear

If knowledgeable people are considered fountains, Dr. Leroy Little Bear is a waterfall. The Blackfoot researcher and professor emeritus at the University of Lethbridge, has no short supply of wisdom, and he shares it generously.

During his presentation at AWA's award and lecture evening on Nov. 17, he gave the audience a question to

take home with them.

"So often we talk about the ecological role of different types of animals," he said, "but we never ask ourselves what the ecological role of human beings really is about."

Little Bear, born and raised on the Kainai First Nation in Alberta, one of seven children in his family and who attended the residential day school there, has multiple achievements and accolades. He's the founding member of Canada's first Native American Studies Department, and a recognized leader and advocate for First Nations education, rights, self-governance, language and culture. He has received numerous awards and recognition for his work, including the Officer Order of Canada, and the Alberta Order of Excellence. In 1971, when he graduated with a Bachelor of Arts Degree, he became one of the first First Nations people to graduate from the University of Lethbridge. Little Bear also has a Juris Doctor Degree at the College of Law from the University of Utah. After chairing the Native American Studies Department at U of L for 21 years, he became the founding director of the Native American Program at Harvard University.

Little Bear is actively involved in U of L's response to the Truth and Reconciliation Commission and continues to advocate for the return of the bison to southern Alberta. One of Little Bear's most significant and enduring legacies is his work with

the United Nations, where he helped to establish a working group on Indigenous populations. It was this working group that originated the concept and initial draft of the United Nations Declaration on the Rights of Indigenous Peoples, which has since been ratified by 144 member states. He had many more achievements beyond these listed. Currently, Little Bear is the Vice-Provost of Iniskim Indigenous Relations at U of L.

On a geological scale, Little Bear told a rapt AWA audience, humans are the "brand new kids on the block," compared to many other species, and in a sense we have a lot to learn. That can in a way be seen in how conservation in mainstream society is less of a priority compared to the economy.

He said conservationists end up having to "clean up the mess that our economies bring about ... like parents cleaning the mess the kids make."

He also warns that when it comes to protecting the environment, language has a tendency to "colonize conservation."

"We have so many definitions, we keep breaking it down," he said, "and we end up talking and talking about it so much that we never get to the doing."

He said there needs to be a change in the conversation, and added a true leader is someone who can help bring about that change.



Mike Judd

Mike Judd, longtime AWA director in the 1980s and 1990s, has been a lifelong defender of the Castle and Southwest Alberta wildlands.

"I've been in love with the wild country since the day I was born," he said.

"Nature is a true value. And I think with the COVID thing, people began to realize that their only escape was to get out into the wilderness and be with nature ... I feel like it's something that we need to defend with all our

strength, because it's clear that we're losing it everywhere."

Judd, was for much of his life a guide and outfitter involved in hunting, trail riding along the continental divide and dog sled tours. Judd is also a founding member of Rescue the Rockies, Timber Wolf Wilderness Society and Foothills Bison Restoration Society.

He's been an intervener at over a dozen regulatory hearings, and has been featured in the media on

multiple occasions to speak on the Eastern Slope wilderness and wildlife issues. He's also stood on the front lines of several protests, and was "jailed twice."

In the 1980s, when a company proposed to drill wells at Corner Mountain, Judd was part of a resistance to block any activity going forward — he stood alongside others in front of "great big machines for several days, and got a lot of media attention to the issue." Getting the word out to public was a critical

aspect, he said, as otherwise, he believes the drilling would have quietly gone on without any public awareness.

He said "actual activism" is not something many people are comfortable with. "But the truth of the matter is," Judd said, "it works." He added that the demonstrations he took part in in the Castle Provincial Park area "were pretty good proof of that."

Judd admits that standing up for what you believe in can often come

at a price. "I've been thrown in jail a couple of times, I've been declared crazy. I've lost friends ...Standing up for anything is not easy," he said. "But I and many, many others believe that it's the right thing to do."

Judd is still involved in an Alberta Energy Regulator hearing on sour gas wells reclamation, and was recently involved with the film production "Coming Home" about the prospect of returning bison to public land.



Dianne Pachal

AWA has much gratitude for the work of Dianne Pachal, who carved out the beginnings of the non-profit's journey to becoming a larger scale environmental organization, including having its first paid staff positions.

After earning an environmental science degree with distinction and a few years with Alberta's Fish and Wildlife Division, in December 1979 she became one of the first two staff ever hired by Alberta's conservation advocacy groups. Through to 1991, she juggled two concurrent, part-time positions: Office of the

Environmental Coordinator for five provincial groups and executive director for the AWA. Bringing with her prior organisational development skills, she increased AWA's annual budget from \$10,000 to one-quarter of a million with three core staff, including the initiation of annual fundraising programs such as the Calgary Tower Climb for Wilderness.

Pachal remembers AWA as "a frontline advocacy and activist organization" while she worked for the organization. "One with a very active membership. And the one that the province knew they would have to reckon with," Pachal said.

"From earlier years with AWA I knew whenever a major issue came up ... within two weeks we could raise \$2,000 and have a lot of letters to the government people talking to their family," Pachal said.

She said an aspect she loves about the work she's done with so many environmental groups and causes over the years is the people she met.

"I can open a map of Alberta and B.C. and know the stories, and the people. That's the wonderful part about working in conservation, advocacy and activism," she said.

In 1992, the Government of Canada awarded Dianne a 125th Anniversary Commemorative Medal "in recognition of significant contribution to compatriots, community and to Canada."

Through to joining the Parks Canada service in 2013, she dedicated her passion, tenacity, creativity and sharp strategic mind to activism and advocacy for wilderness preservation and wildlife conservation.

She is perhaps most publicly known for the many front-line campaigns to protect Canada's national parks, and the wilderness, wild rivers, parks and wildlife of Alberta and British Columbia. Many new to a conservation or environmental advocacy task or job have been mentored by her.

Pachal said her advice to future generations is to not give up, even in the face of the growing climate disaster.

"My hope is that people don't get discouraged," Pachal said. Of course, there are very difficult times with the effects of climate change upon us."

Great Gray Owl Award

Like the great gray owl, with unending patience and dedication to purpose, these individuals work in quiet wisdom to conserve wilderness habitat and wild creatures. Our success is a reflection of the enduring commitment they have made to Alberta Wilderness Association. This year's recipients are:



**Gail
Docken**

Gail is a devoted mother and grandmother whose heart finds solace in the great outdoors. From her earliest memories, nature has been her haven. Running, hiking, skiing, and paddleboarding are not just activities for Gail; they're threads in the fabric of her vibrant life.

Gail's days are defined by staying active, a commitment that fuels her spirit and connects her with the beauty surrounding us. As a realtor in Edmonton, Gail enjoys sharing her deep respect for Alberta's breathtaking landscapes.

For Gail, life is a tapestry where family, outdoor adventures, and a fulfilling career coalesce. Caring for our beautiful Alberta isn't just a duty; it's a passion that resonates in every facet of her journey. In the rhythm of running trails, scaling peaks, and navigating waters, she's discovered the perfect harmony between family bonds, personal pursuits, and the responsibility to preserve the natural wonders that make Alberta truly enchanting.



Nathan Schmidt

Originally from Vancouver Island, Nathaniel moved to Alberta to pursue a degree in piano performance at the University of Lethbridge. After working in music for over a decade, he switched gears and now works for Legal Aid Alberta as a criminal defence lawyer.

He loves to explore the less trafficked areas of Alberta in the grasslands, parklands, and foothills which is lucky for him because he also has an acute fear of heights. Although he loves going for long hikes, he often doesn't make it too far if there are any birds to be seen.

Nathaniel began volunteering at AWA in 2017. In that time, he has done everything from painting the office steps, tending to the garden, losing pounds of sweat dressed as the AWA mascot Smoky, and leading

campaigns such as the fight to protect the wetlands in the Ricardo Ranch area in Calgary and bringing more attention to OHV use in the Mclean Creek area of Kananaskis.

Nathaniel also sits on the board of Calgary River Valleys and More Neighbours Calgary in an effort to bring more attention to the relationship between municipal development, climate change and biodiversity.

A Note from the Executive Director

How Many Bucks Does It Take?



Deborah Donnelly

It has been a very challenging but rewarding year as the new Executive Director of AWA. We continue to push ahead and make progress on many fronts, from CFB Suffield in the South to McClelland Lake in the North — and many areas in between. I would like to extend my gratitude to our volunteer Board of Directors for their amazing support, and to our excellent staff who have continued to develop and make change in this province for the better. We have brought on several new employees this year, all of whom are continuing the tradition of working hard to represent AWA in a professional manner.

I am and continue to be amazed by the generosity of our members and volunteers, our funders, and supporters, for selecting AWA to be the recipient of your time and donations. We could not do the essential work we do without your generosity. Greater than 70 percent of AWA's revenues in 2022-2023 came from donations from you and others like you. These numbers are telling us that the people of Alberta wish to protect this province's natural heritage, and trust AWA to continue to do so.

Much of our work is supported by our incredible volunteers. We had more than 70 volunteers work with us over the past year, and conservatively recorded over 1,180 hours of their support.

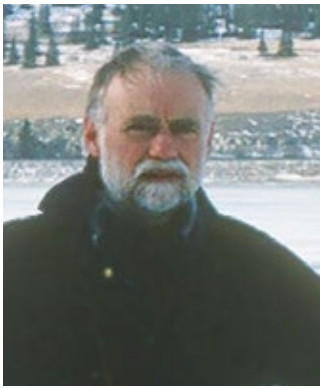
AWA's impressive track record as a charity is demonstrated by the rating given by Charity Intelligence Canada (CI); AWA has once again been included in CI's Top 100 charities, with an A+ and 5-star rating. We are one of only 11 environmental charities to be in CI's top 100.

I feel privileged to be at the helm of this organization. I consider myself fortunate to have visited many parts of Alberta this year and meet some of you on various hikes through our Adventures for Wilderness (A4W) program, or at one of our events. I hope to meet more of you in the coming year. Please feel free to contact me if you wish to discuss our work.

Thank you for being a supporter of AWA!

To see a list of our supporters, see our annual report, posted to our website.

Naturalist Painter: Red Foxes Fear Coyotes



By Dick Dekker

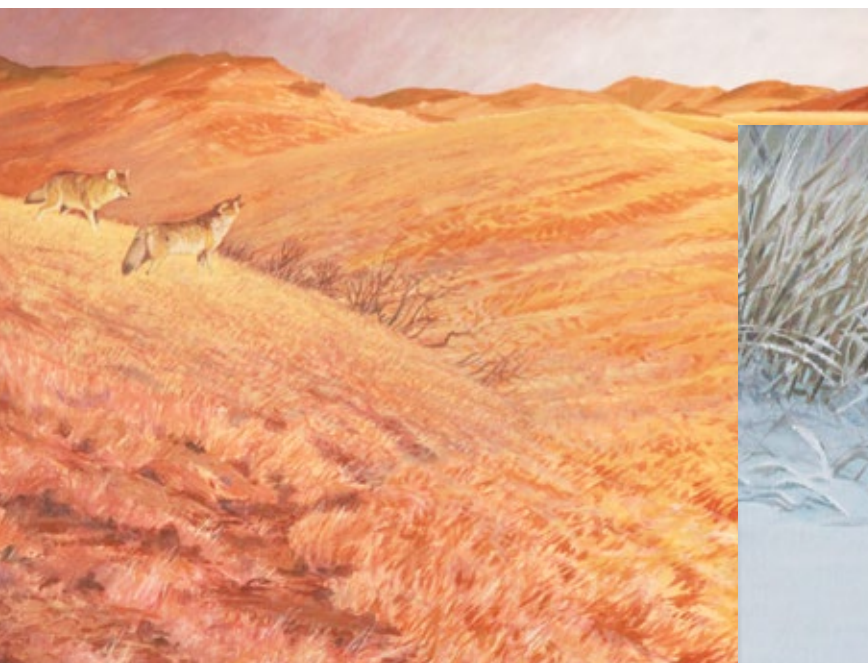
Does absence make the heart grow fonder? In 1959, when I immigrated to Alberta, keen on seeing its wildlife, I was disappointed to find that the red fox was missing. The explanation turned out to be that the provincial government had conducted a massive campaign in the 1950s to exterminate all carnivores in a wide belt around set-

tled regions. The intent had been to stop the spread of rabies, which had been diagnosed in some northern foxes. After five years of poisoning, the official toll was reported to be 55,000 dead foxes.

It took until the early 1970s before the species made a return to central Alberta. In September 1972, a provincial wildlife officer told me that he had impounded a fox pup from a farm boy near Tofield. When I contacted the boy, he showed me a fox den in their grain field. This exciting news started me off on many years of field studies. In winter I followed fox tracks on snowshoes, and by early June I knew of several occupied den sites. From a parked car, peering through a scope or binoculars, I spent countless hours watching fox families east and south of Edmonton. There is no happier sight in the world of nature than young foxes gambolling together or playing tag with their parents. A British naturalist had written that the male fox does not take part in family life. However, I saw many instances of three adults bringing food for the pups.

One day this delightful scene was rudely interrupted when a coyote rushed up. Fortunately, the vixen had spotted the danger in time and sounded a warning from the nearby bushes. A few days later, this den was deserted, and I picked up a severed fox tail lying nearby. As described in my 1985 book *Wild Hunters*, I watched coyotes chase foxes and foxes attempting to lead a coyote away from their den. When the foxes began denning near human habitation, it dawned on me that they were trying to cope with their nemesis by spatial segregation. Hiding their pups under a barn on the edge of a farmyard, the foxes did not shy away from farms that were guarded by large dogs. On the contrary, the barking dogs helped keep the coyotes away. Years later, red foxes also entered the river valley of Edmonton, which is dominated by coyotes today.

Dick Dekker is an independent wildlife ecologist with a PhD from a Dutch University. He has written many papers and articles in a wide range of print media and is the author of ten books. His 2021 'Stories of Predation — Sixty Years of Watching Wildlife' is available from Hancock House Publishers, Surrey, BC.



Two coyotes on hill; oil on linen, 24 x 20 inches.
Painting by D. Dekker



Fox caching vole; oil on canvas board, 14 x 10 inches.
Painting by D. Dekker



Alberta Wilderness Association

TREAD LIGHTLY

In an effort to reduce AWA's environmental footprint, we are asking our members to notify us if you are interested in switching to the digital-only version of the Wild Lands Advocate.

Photo © P. Meintzer

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Canadian Addresses to:



Alberta Wilderness Association
455-12 ST NW
Calgary, Alberta T2N 1Y9
awa@abwild.ca

PM 40065626



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