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C O N T E N T S

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OP-ED

- 3 Stuffed Grouse and Big Tents

Features

- 5 Greater Sage-grouse: A Symbol of the Prairies
10 Sage-grouse Conservation in the United States: An Update on the Sage Grouse Initiative
11 Carbon Capture: The False Prophet of Climate Salvation
14 Youth Climate Activism in Alberta
15 Red Tape Reduction Raises Red Flags
17 Coal is Still a Concern
19 Saving the Caribou: West Central Alberta Closing in on Action
20 What's Next for West Central Alberta's Upper Smoky Caribou?
21 Cub Reporter: Sleeping Under the Stars

Wilderness Watch

- 22 Calgary Airport – Banff Passenger Rail Proposal
22 AER Brine-hosted Minerals Engagement
23 Responsible Tailings Management Alliance
24 WaterSMART Drought Simulation Workshop
24 The Central Grasslands Roadmap Summit
25 Jasper Consults on Caribou Conservation Breeding Plan
26 Reviewing Alberta's Absurd Mine Financial Security Program

Departments

- 27 Wilderness Defender Award: Richard Thomas: A Many-Caused Rebel
28 2021 Martha Kostuch Annual Lecture and Wilderness and Wildlife Defender Awards: Wayne Howse
31 Adventures for Wilderness: Discovering Wild Alberta

Cover Photo "I photographed the greater sage-grouse (*Centrocercus urophasianus*) for the first time in 1977 near the small prairie town of Govenlock in southwestern Saskatchewan. Then, there were many thousands of these large grouse living year-round in the shortgrass prairies of Saskatchewan and southeastern Alberta. Within a little over twenty years the birds' numbers had declined so precipitously that it was listed as an endangered species and numbered less than a thousand. I took the accompanying photograph in the late 1990s on one of my last trips to Manyberries, Alberta where several dozen males still displayed on their traditional spring dancing grounds. Such a sight is no longer possible in Alberta. Today, there are perhaps fewer than 300 sage-grouse remaining in Canada."



Wayne Lynch

Editorial Note For this issue, I wanted our articles to highlight the diversity of the many challenges facing Alberta's wilderness. The theme of this issue is "The Speed of Business" because we often hear this phrase used by those who believe that we need less regulation so that businesses can operate, and so that money can change hands more quickly. In this issue, you will read about Alberta's push to "cut red tape", at the same time as we expand mineral mining in the province as part of the "lithium rush". Sage-grouse became the focal point of this issue, with two excellent articles by AWA's Ruiping Luo, discussing the threats to their habitat from helium mining among other issues. Other articles discuss the Calgary-Banff train development, cross-border coal issues with the United States, a message from a youth climate activist taking the federal government to court, and a new group formed to fight the release of oil sands tailings effluent into the Athabasca River. We risk causing irreparable harm if we continue to move at the speed of business without stopping to consider the cumulative impact of our activities. Slowing down needs to be part of the solution to better land management.



Phillip Meintzer
AWA Conservation
Specialist and
Wildlands
Advocate Editor

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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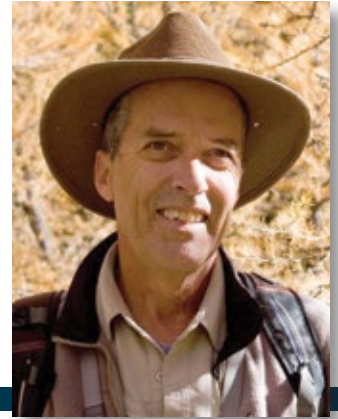
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Op-Ed: Of Stuffed Grouse and Big Tents

By Kevin Van Tighem



There is a sharp-tailed grouse on our cabin wall, balanced on a piece of driftwood, that stares at me through glassy eyes as if wondering why it's still there. Or why I am? It's been pondering the same questions ever since 1990 when the Alberta Wilderness Association held its 25th annual general meeting in Pincher Creek, Alberta. The AGM included, as usual, a silent auction.

I'd been a relatively passive member of the AWA since joining back when I was in university, but the environmental controversies of the day – massive boreal forest giveaways and pulp mill expansions, commercial over-development of the national parks and a dam on the Oldman River – had taken me from a mere consumer of the wild to a passionate defender of it.

It was a wonderful gathering, as is often the case when good people gather in rural halls. Some of my conservation heroes were there: people like Vivian and Dick Pharis, Cliff Wallis, Dianne Pachal, Ray Rasmussen and two of the organization's original founders: Steve Dixon and Bill Michalsky. Mike Judd was there, with his sharp eyes, droll humour and simmering anger over what oil and gas companies were doing to his beloved Castle Wilderness. There were long lanky cowgirls and cowboys, earnest young environmentalists dropping Latin names and multisyllabic jargon into intense conversations by the bar, and quiet people with far-looking eyes who seemed to wonder why they were in this crowded room on such a nice evening. It was an eclectic gathering of people whose only real similarity was their love of wild nature and their determination to protect it from bad ideas.

I recall feeling a deep and humble affection for those people, but also feeling that I didn't quite belong. My unfortunate solution to that was to drink three beers, probably a bit too fast. Then I wandered around the auction tables in a warm and happy haze. And that's how I ended up with a stuffed grouse, originally donated to the AWA by Garry Hackler.

Back home, my partner Gail looked at me, looked at the grouse in my hand, looked back at me again, until I admitted that I'd maybe gotten a bit carried away. Fortunately, neither the wife nor the grouse have ever left me; the grouse has accompanied us now to seven different homes and seems relieved, as am I, that the moves are finally over. We are quite happy here in our cabin by the Oldman River. It may have been an introvert's beer-fuelled mistake to bid once too often on that

grouse, but I'm glad I did. It continues to remind me of a golden evening among fine people, united by love of our home place and the often-desperate feeling of watching others dismantling it.

But it also reminds me of failure and disillusionment, because in the years since that gathering it can't be said that we have saved a whole lot. We put the brakes on a few things, but the Oldman dam got built and filled. The pulp mills expanded; surrounding forests are now mangy with clearcuts. Commercial exploitation of the national parks slowed, but continues. Native prairie – unbelievably, given how much we've lost and how many of its species are now at risk – continues to be ploughed under. Birds that were common when I was a kid are now endangered. Back then, we had awful environment ministers like Ty Lund, and it seems that we still have



A photo of the stuffed sharp-tailed grouse donated by Garry Hackler and now mounted at Kevin's cabin.
Photo © K. Van Tighem

awful environment ministers today such as Jason Nixon who has fortunately been moved to another post. Bad things keep happening to our province.

Loving Alberta is like loving someone suffering progressive dementia: bit by bit the place is losing its identity, mislaying pieces of itself; forgetting who it is. At that AWA gathering back in 1990 we were celebrating the organization's birthday and our shared passion; not our victories. Out beyond the edge of town, there was little cause for celebration in a place that seemed constantly at war with its very nature. But maybe that has changed?

Earlier this summer I joined another gathering where I again felt both out of place, and profoundly grateful for the people with whom I had the good fortune to spend the evening. Gathered around the fireplace were Niitsitapii water protectors, urban environmentalists, foothills ranchers, musicians, business owners, moms, dads – again, an eclectic mix. But this time we weren't celebrating an anniversary. We were gathered to celebrate a nearly unprecedented environmental victory: saving Alberta's Eastern Slopes from our government's misguided plans to fill them with coal mines. In our most critical source water region. Upstream of endangered native trout populations, and in the midst of a worsening climate catastrophe.

This idea was stupid. But stupid ideas have never stopped previous Alberta governments from pursuing them anyways. What stopped them this time was a massive uprising of Albertans – from all walks of life, all political persuasions and every kind of lifestyle, all determined to save the Eastern Slopes. Social media helped. It probably helped that the issue blew up during the Covid pandemic when people were stuck at home, frustrated and annoyed. It certainly helped when celebrities like Corb Lund and Amber Marshall stepped up to give the issue wider reach. And of course, it was one of the least competent governments in Alberta's history that launched the coal fiasco and tried to manage the outrage. Still, looking around at the happy faces of people who had never even met one another before the coal issue blew up, I couldn't help asking myself: why this victory? Why didn't we win those

other ones?

The reasons, I believe, are complex and worthy of more words than I have to work with here. But besides the contributing factors already listed above, I think one of the most overlooked but important ones is that the coal fight was fought, for the most part, from a non-partisan stance. A lot of the strongest voices were from the rural foothills, from people who had actually voted for the UCP government and who consequently felt most badly betrayed by the coal surprise. Coal, after all, had never been part of the UCP election platform.

Many others, of course, were in fact NDP supporters, nostalgic for those few brief years when we actually had a brilliant environment minister in Shannon Phillips. But, following the social media campaign to save our headwaters, I observed that every time someone tried to dumb down the debate by blaming conservative politics, others would chime in to point out how many conservative voters were fighting for water security and intact mountains with the rest of us. The government certainly tried to make coal a partisan issue. That way they could dismiss the uproar as simply being the opposition party playing politics. But they abandoned that approach when it became clear that they were accusing their own supporters of being their opposition. Not the best re-election strategy to pursue.

The coal campaign became the "big tent" that the UCP had always pretended to be. Our big tent was defined by who we are: Albertans who care about the places we love – and what we believe in: clean water, native trout, healthy landscapes, intact mountain landscapes, and honest governments. Coal strip-mining threatened all of those. Everyone crowded into the same tent and stayed there because they belonged. Including many who identify as conservative but who had only lately realized their mistake in thinking that the UCP was a big-tent party, rather than a far-right insiders' clique. They felt welcome in the growing conservation coalition against coal, made new friends, and stayed.

The coal issue is not dead. But it's been put to sleep by caring Albertans who were able to unite behind what we love, rather than around political lines. We'll almost

certainly have to beat that coal dragon down again, unfortunately; conservationists must win our battles against bad ideas repeatedly. Still, we may be arriving at a stage in this province's history when conservation starts to see more wins than losses. It's a bittersweet thing to say that, because we've already lost so much. But it's inspiring too. Albertans seem to be finally waking up to who we are (or who we could be), understanding why wilderness matters, and how it's up to us to save it. One betrayal too many, and everything has changed.

How do we make that hopeful prediction come true? In part it means striving not to label people based on their politics or how they live but instead, to remind them constantly of who we all are: Albertans, living in an Alberta worth fighting for. Driving home from this latest gathering I glanced into the ditch and there, staring back at me, was a sharp-tailed grouse. A live one, at home in its native Alberta landscape, 57 years after a small, lonesome core of caring, determined people founded the AWA. We're not lonesome anymore. Let's keep it that way. Conservation is not a partisan issue. It's a human issue. An Albertan issue. And we are all Albertans. Coal showed us how conservation can bring us together, making us truly a force to be reckoned with.

Let's keep pulling our neighbours into the big tent that coal built, and let's be careful not to push anyone out. Wild Alberta is the best part of who we are; together, we can keep it that way. All of us, and all our relations. 🐾

Kevin Van Tighem is a long-term AWA supporter and former Superintendent of Banff National Park. He is the author of 14 books on conservation and wildlife, including The Homeward Wolf, Heart Waters: Sources of the Bow River and Wild Animals of the Canadian Rockies. Ever the determined optimist, Kevin feels that no matter how bad the current ecological situation is, it can be fixed, but only if enough people become mobilized or engaged.

Greater Sage-grouse:

A Symbol of the Prairies

By Ruiping Luo, AWA Conservation Specialist



Every year, as the snow melts and the air warms, a vibrant landscape is revealed. In the prairies, the soils thaw, grasses grow, and slowly the wildflowers begin to bloom. The buzz of bees and other insects returns, and bird calls fill the air. In the southeast of the province, in the few remaining areas of intact sagebrush habitat, a lucky few might also hear the sounds of popping and whistling as the greater sage-grouse begin their courtship rituals.

What are greater sage-grouse?

The greater sage-grouse is a species of mottled brown-grey bird found only in the Great Plains of North America. They are the largest grouse in North America, with females averaging 56 cm long and the larger males averaging 75 cm, making them only slightly smaller than wild



Greater sage-grouse are a federally and provincially Endangered species found in the sagebrush flats of Southeastern Alberta. The male, pictured left, is larger and more striking than the female, pictured right. Bulbous yellow sacs hidden within the white breast feathers of the male are inflated during courtship.
Photo © C. Olson.

turkeys. The males, aside from being bigger than the females, are much more striking in appearance. Male greater sage-grouse present a ruff of white feathers around their neck and chest, and contained within their breast feathers are two large yellow air sacs that can be inflated and deflated during courtship.

Sage-grouse habitat requirements are complex, with subtly different environments needed for displaying, nesting, chick-rearing and over-wintering. From March to May, sage-grouse gather at display grounds, or leks. These are usually open areas surrounded by sagebrush, with sage-grouse often returning to the same grounds year after year. On these sites, males will strut, fanning their tail feathers and inflating their yellow throat sacs with the aim of attracting females. The inflation and deflation of their throat sacs creates the famous popping, booming and whistling noises, a sound that can travel for up to three kilometres. Competition between males is fierce, as most females will select the same few males, and males fight for the best position on the lek.

While male sage-grouse will continue their displays at leks for weeks, females only show up long enough to choose a mate. Once mating is completed, the females leave to nest in the surrounding area. Nesting occurs in areas of high sagebrush canopy cover, with grass and forbs as an understory. Nests are scraped into soft soils, usually under the cover of sagebrush plants, and lined with leaves, grasses, twigs and feathers. Grass and shrub cover is important for shielding the nest from predation and providing warmth, and an availability of nearby forbs is needed to provide hens with food during brooding.

The eggs hatch after 25 to 29 days, releasing downy, brown- or grey-spotted chicks. Chicks are able to feed themselves within a few minutes of hatching, and readily consume the

forbs and protein-rich insects nearby. Within 10 days they are able to fly, albeit weakly. At first, the chicks and hens often stay close to nest sites, although some may move to other areas. Hens select for areas with a diversity of plants and insects, usually in sagebrush stands with lower canopy cover. In late summer, as both plants and chicks mature, sage-grouse move to areas with more succulent vegetation, often meadows and occasionally croplands. The presence of wet areas and riparian zones are especially important for chicks in late summer.

As the weather cools, the chicks of a brood begin to disperse, and sage-grouse gather in flocks. Although they can use a variety of habitats during this time, their diet becomes more and more dependent on sagebrush leaves and buds as other types of vegetation become dry and brittle. By winter, sage-grouse are reliant on sagebrush, not only for food, but also for shelter. On cold nights, sage-grouse will burrow in the snow, and they may fly long distances between feeding and roosting sites. Sage-grouse do not migrate, though unlike many other birds, winter mortality is low, and most will survive the harsh season. In spring, male sage-grouse will return to leks, once more competing for the attention of females.

The importance of sagebrush

Greater sage-grouse are sagebrush 'obligates' in that they depend on sagebrush plants for food or cover in all stages of their life cycle. During the summer, sagebrush makes up 47 to 60 percent of adult sage-grouse diet, and this increases to 100 percent in the winter. Sage-grouse lack a muscular gizzard, and so cannot digest seeds or harder substances. Without the soft leaves of sagebrush, sage-grouse would not survive, especially through the colder months.

Sagebrush provides habitat for more than

sage-grouse. In the vast fields where it is common, sagebrush plays an important role in the broader ecosystem. The long tap roots allow the plant to survive dry summers and capture snow in the winter months, retaining more moisture during spring melt, and these roots also help keep soils intact. Sagebrush plants create conditions that support many other native plants, and act as shelter for several species of animals. They provide nutrition for a variety of birds and insects, as well as larger grazers such as rabbits, deer, elk, pronghorn, and sheep. Many of the species reliant on sagebrush serve as prey for predators, including hawks, eagles, foxes and coyotes. In total, conservation of sagebrush habitat has been estimated to help over 350 species of plants and animals throughout the North American Great Plains.

In Alberta, the silvery-green leaves of sagebrush can be found in the Grasslands Region, and are most abundant in the southeast, near the borders with Saskatchewan and the United States. Historically, sagebrush was prominent throughout the Great Plains and, in Canada, habitat supporting greater sage-grouse covered around 100,000 km². Since then, sagebrush ecosystems have been fragmented by agricultural conversion, industrial development and urban expansion.

Sage-grouse decline

Greater sage-grouse are highly sensitive to habitat disturbance, and their decline is closely linked to sagebrush loss. Between the 17th and 19th centuries, European settlement destroyed vast amounts of native grassland to build roads, houses and farms. Many prairie lands were

converted to seeded pastures or cropland, and settlers introduced several non-native species, some intentionally as crops or livestock. Overgrazing in the remaining grasslands devastated native prairie, and in some areas, introduced species began to displace native plants. Simultaneously, annihilation of bison and suppression of fires – major disturbances that once shaped the North American Great Plains – allowed woody shrubs to encroach on the remaining sagebrush and transform the grassland ecosystem. More than half of the sagebrush habitat in North America is estimated to have been lost since European settlement, with a reduction of 94 percent in Canada.

In the 20th century, new settlement and conversion of native prairie began to slow, although another threat was already emerging: the growing global interest in oil and gas. In the 1880s, natural gas was discovered near Medicine Hat. By the 1900s, several natural gas wells had been drilled, and oil exploration in Alberta began in earnest. Oil and gas prospecting further fractured and degraded the shrinking sagebrush habitat, contaminated waters and soils, and displaced many wildlife species, including greater sage-grouse. Noise, produced by drilling and other human activities, disrupted leks from as far as six kilometres away, and sage-grouse survival dropped as oil well density increased. Periods of extensive petroleum activity in the late 1970s and 1990s coincided with dramatic sage-grouse population losses.

By the early 1900s, naturalists and hunters were already noticing the disappearance of these formerly abundant birds. In 1968, a

count of sage-grouse on leks found only 613 males in Alberta, and by 1994, this number had declined to 70 males. In 1991, greater sage-grouse were listed as a *species of concern* in Alberta, although hunting remained open until 1996, when sage-grouse were acknowledged as a *species that may be at risk*.

Sage-grouse conservation

Federally, the greater sage-grouse was first listed as *Endangered* in 1998. The same year, the Alberta government published a report on sage-grouse acknowledging “an 80 percent decline over the past few decades” and that the species was “at risk of declining to nonviable population levels in Alberta,” although it would take another two years for sage-grouse to be listed as *Endangered* under the *Wildlife Act* in Alberta. When the federal *Species at Risk Act* (SARA) came into force in 2002, it provided protections against the “killing, harming, harassing, capturing, taking, possessing, collecting, buying, selling or trading” of listed species in Canada, and aimed “to provide for the recovery of wildlife species that are extirpated, endangered or threatened as a result of human activity.”

Still, sage-grouse continued to decline. Populations showed a slight increase to 124 males in 1998 before declining further to a low of 13 males by 2012. Nationally, a population of nearly 2500 individuals in the 1980s had declined to only an estimated 93 to 138 individuals by 2012. Habitat loss due to human activity was agreed to be the greatest threat to sage-grouse populations, yet exploitation of the prairies continued, driven by a soaring international demand for oil.

The first federal sage-grouse recovery strategy, *Recovery Strategy for the Greater Sage-Grouse* (*Centrocercus urophasianus urophasianus*) in Canada, was published in January 2008. Its stated goals were to halt the loss of leks, improve population status and productivity by 2012, and achieve a stable or increasing sage-grouse population by 2026. However, while the report acknowledged the importance of sagebrush and the threat presented by habitat degradation and fragmentation, it concluded “Critical habitat cannot be identified for the Sage-Grouse at this time.” Without the identification and protection of critical habitat, improving the sage-grouse populations and reaching the recovery strategy’s goals would be nearly impossible.



Sage-grouse are reliant on rapidly diminishing sagebrush habitat. Sagebrush, with its distinctive silvery-green leaves, also helps soils retain moisture, supports several native plants, and acts as habitat for a variety of grassland species. Photo © C. Olson.

In response, AWA worked with four other environmental non-government organizations and retained the services of Ecojustice, an environmental law charity, to file a lawsuit against Environment Canada. The lawsuit protested that, contrary to the claims in the recovery strategy, there was ample scientific evidence to identify critical habitat, and Environment Canada had failed to uphold the requirements for SARA. On July 9, 2009, in a landmark decision, a judge ruled in favour of Ecojustice and the environmental groups, making it clear that designating critical habitat was a requirement of recovery planning. It was a small but important victory towards the protection of sage-grouse.

The Emergency Protection Order

Even with growing awareness of sage-grouse peril, the species continued to slide towards extinction. Environment Canada modified the recovery strategy and identified a limited amount of critical habitat as a result of the federal court ruling. Still, the majority of lands considered critical habitat continued to be managed as before, and although there were assurances that activities damaging critical habitat would be restricted, industrial development persisted in many areas.

On September 7 and 8, 2011, with no sign of sage-grouse recovery, AWA hosted an Emergency Sage-Grouse Summit. The summit gathered together leading international sage-grouse scientists, environmentalists and landowners to determine the actions needed to prevent sage-grouse extinction. A communique resulting from the summit summarized that “current efforts are failing to prevent the extirpation of the greater sage-grouse” and “there is an urgent need for immediate action and substantive measures,” and laid out recommendations for the identification, protection and restoration of critical habitat. This communique was posted on the AWA website and sent to the governments of Alberta, Saskatchewan, and Canada, urging immediate action.

Over the next few months, supporters of sage-grouse wrote letters demanding action from the federal and provincial governments. These letters came from across Canada, from numerous concerned individuals and groups, and from a diversity of sectors, including biologists, nature clubs, and an eight-year-old

child worried about the loss of a beautiful species. They pointed to the diminishing population and range across the prairies and questioned the lack of government response and protection for native grassland habitats.

In replies to AWA, the Alberta government provided assurances that they were “working with oil and gas industry and other stakeholders to minimize the footprint of new land uses.” Work was underway to translocate sage-grouse from Montana, a solution that could only be temporary without suitable habitat for the birds to establish in. The Government of Canada similarly provided assurances of “working with provincial governments, industry and landowners to ensure that regulatory and other conservation measures are in place” and claimed Environment Canada was working to identify additional critical habitat. Neither government took any meaningful action in protection of critical sage-grouse habitat.

In November 2011, roughly two months after the summit, AWA and 11 other environmental groups retained Ecojustice to submit a legal petition on their behalf, demanding federal Environment Minister Peter Kent take necessary action to prevent the imminent extinction of sage-grouse in Canada. Under SARA, a minister can recommend an “Emergency Order” if “he or she is of the opinion that the species faces imminent threats to its survival or recovery,” and the petition called for this legislation to protect greater sage-grouse. The petition demanded a response by January 16, 2012.

When Minister Kent failed to respond before the deadline, the conservation groups pursued legal action and filed for judicial review. In reaction, a Minister’s Certification and Objection was issued, claiming Cabinet confidence under the *Canada Evidence Act* and stating “it is not possible to reveal whether the Minister has made or will make a recommendation to the Governor in Council for an emergency order to be issued.” Ecojustice brought a motion challenging the application of Cabinet confidence, stating its use obstructed the right to a judicial review, and countered with a demand that the Minister reveal whether a decision for an emergency order had been made. Though the motion was initially dismissed, AWA and the conservation groups were given a favourable decision on appeal, and the Court required the federal

government to reveal the Minister’s decision. It was August 2013, over a year since the petition was first submitted.

Meanwhile, back in late 2012, AWA had initiated meetings with Medicine Hat Gas and Alberta Environment and Sustainable Resource Development (AESRD), the precursor to Alberta Environment and Parks (AEP), to discuss sage-grouse protection and recovery efforts, and the formation of a Sage-grouse Partnership. AWA continued to contact any parties of interest, including Chinook Energy, Alberta Minister of Environment Diana McQueen, Assistant Deputy Minister Matt Machielse, Northern Plains Conservation Network, Nature Canada and Canadian Energy Pipeline Association. On March 4, 2013, AWA met with 34 landowners and leaseholders near Manyberries to share knowledge and discuss concerns about grasslands and the future of prairie species. This meeting was the beginning of the Sage-grouse Partnership, a partnership between landowners, leaseholders, interested individuals, oil and gas industry, conservationists and government aimed at accelerating the progress for sage-grouse recovery.

On September 17, 2013, nearly two whole years since the petition, the federal government at last announced the intent to introduce an Emergency Protection Order (EPO) for sage-grouse and an expansion of identified sage-grouse critical habitat. The promised order was published December 4, and prohibited destruction of sagebrush, construction of roads, poles and loud machinery, and noise disruptions on protected public lands. AWA and other conservation groups welcomed the hard-won order, although they still had concerns over some of the terms. In February 2014, AWA and the Sage-grouse Partnership wrote appealing against unnecessary restrictions for fencing or grazing, which the government accepted.

However, poor communication and a lack of clarity on the implementation of the EPO led to misinformation and resentment. In January 2014, the City of Medicine Hat and LGX Oil and Gas filed a court application to revoke or suspend the EPO, claiming the federal environment minister failed to consult with industry and other stakeholders. AWA responded that any further delays could cause the greater sage-grouse to become extirpated from Canada, though agreed that



Concerned for the declining sage-grouse population, AWA hosted an Emergency Sage-Grouse Summit in 2011. The summit invited leading experts and collaborators to speak on preventing sage-grouse extirpation, and resulted in a communique which urged immediate action. Photo © C. Olson

the government needed to place appropriate resourcing behind the protection order and not penalize energy companies or ranchers assisting with recovery efforts. The EPO went into effect on February 18, 2014.

In June 2016, marginal increases in sage-grouse numbers were confirmed. The Canadian population was estimated at 340 individuals, higher than the 2014 estimate of 100 birds, and Alberta's lek count yielded 46 males compared to only 8 in 2013. For the first time in years, there appeared to be a glimmer of hope for greater sage-grouse recovery.

Conservation projects

In 2013, with the understanding that populations were facing extirpation in the wild, Minister McQueen approached the Wilder Institute/Calgary Zoo (WICZ) to request their aid in the breeding and release of greater sage-grouse. WICZ responded with a proposal for a 10-year project to establish a sage-grouse breeding flock, breed chicks, and release young birds in an attempt to bolster the wild population. The program is supported provincially by Alberta Environment and Parks and federally by Environment and Climate Change Canada, with each government committing \$2.1 million, and another \$1.1 million raised from donors and visitors.

This would become the first program for greater sage-grouse reproduction in human care, and the only program to breed sage-

grouse in Canada. To learn more about the program, I spoke with Steven Ross, WICZ's Chief Development Officer, and Dr. Axel Moehrenschrager, Director of Conservation and Science.

Prior to WICZ's Program, I was told by Dr. Moehrenschrager, there was no history of sage-grouse in captivity. There was no knowledge of how to raise the animals, and no network to acquire birds or eggs. The Wilder Institute/Calgary Zoo has worked to develop an innovative approach to breed and rear sage-grouse that could be introduced into wild populations.

The program began with eggs. Sage-grouse translocation from Montana was ongoing, and eggs laid during transportation and from nests established in the wild were obtained to begin a breeding flock. The first eggs were hatched in 2014, and in 2017 the birds were successfully bred in captivity. They have since achieved a breeding population with 53 hens and 29 males.

While the breeding of sage-grouse has been effective, there remain challenges in their release. Mainly, these challenges have been in the survival of birds on degraded habitat. Since 2018, 187 juvenile birds have been released in Alberta and Saskatchewan, on land determined to be the most suitable and near where sage-grouse populations are already present. However, as I was told by Dr. Moehrenschrager, the amount of sagebrush is

essential to sage-grouse survival, and the prairie landscape has seen vast changes over the last few years. Without addressing the habitat loss that drove the decline of sage-grouse, releasing captive-bred birds is not a viable solution.

While WICZ focuses on preserving the species, the Alberta Riparian Habitat Management Society, known more commonly as Cows and Fish, has been working with MULTISAR on improving the habitat. Their focus is on riparian areas, important for sage-grouse chicks in late summer.

The work on sage-grouse habitat only began recently, Emily Purvis and Levi Williams-Whitney from Cows and Fish informed me, funded through the Species At Risk Partnership on Agricultural Lands (SARPAL) initiative from Environment and Climate Change Canada (ECCC). They work with ranchers, farmers, landowners, and local groups on a voluntary basis, with much of their work focused on cattle distribution and grazing practices.

Although the work in sage-grouse habitat is more recent, Cows and Fish have experience in riparian health and management, and have already reported preliminary successes in their projects to protect a part of sage-grouse habitat.

In response to the question of what is needed to recover sage-grouse, Purvis told me not to underestimate the value of these riparian areas, with Williams-Whitney adding "ensuring the pastures and rangelands are healthy." Both riparian areas and uplands are important to sage-grouse, as is the maintenance of native, uncultivated pastures. In addition, reclamation of degraded areas and the absence of fragmentation is highly important to sage-grouse survival.

The importance of well-functioning native habitat for sage-grouse was echoed by Pat Fargey, Species at Risk Specialist at Alberta Environment and Parks (AEP), with Joel Nicholson, Senior Wildlife Biologist at AEP, agreeing the "long-term solution must be habitat-based." AEP, along with other groups such as the Alberta Conservation Association (ACA), have also contributed to habitat improvement projects benefitting sage-grouse. Among these projects is an adjustment to fencing, including marking fences to reduce the risk of sage-grouse collisions and the removal or replacement of wildlife-unfriendly fencing. These changes benefit not only sage-grouse, but allow easier passage for other wildlife including pronghorn, while still outlining

boundaries and containing cattle.

Another habitat improvement in sage-grouse country has been the removal of trees and old structures where predators can perch and roost. Predation, while a natural process, can become a concern when a species like the sage-grouse becomes critically imperilled. Removing old structures or adding perch preventers on fence posts and power poles in important sage-grouse areas can reduce sage-grouse vulnerability to avian predators. Artificial roosting structures, including abandoned buildings, can be particularly important for predators during winter, and may allow great-horned owls, raccoons, or other predatory species to achieve higher densities.

Finally, both Pat Fargey and Joel Nicholson spoke optimistically of the unprecedented and accelerated levels of remediation in sage-grouse country. In partnership with Nature Conservancy Canada, ACA, Alberta Fish and Game, and Pheasants Forever, properties have been acquired where cultivated vegetation can be converted back to native perennials. Protective Notations (PNT), which “identify land and resources that are managed to achieve particular land-use or conservation objectives,” have been applied rigorously to crown lands in sage-grouse habitat, as well as lands historically occupied by sage-grouse.

Oil and gas infrastructure is also being strategically removed and the sites reclaimed, aided in part by the Site Rehabilitation Program, which is stated to provide funding

for “abandonment and reclamation work on oil and gas sites in Alberta.” The Orphan Well Association, an independent organization that works to “decommission Orphan oil and gas infrastructure and reclaim the land similar to its original state in a safe, principled, and cost-efficient manner,” has been active in sagebrush habitat. Lars DePauw, president of the Orphan Well Association, confirmed that although sites within the EPO are still in the early stages of environmental assessment and reclamation, over 85% of sites have been decommissioned, and planning will ensure critical habitat for many of the species at risk (SAR) in the region. Recovery of sagebrush density at these sites will be essential to sage-grouse recovery.

Reintroduction of a species already extirpated would be significantly harder than recovering an endangered population, Joel Nicholson warned, which is why keeping the birds on the land is important. The translocation of birds from Montana and the introduction of captive sage-grouse through the WICZ breeding program both support this goal. However, some of the threats to recovering sage-grouse are the high nest failure rates and low juvenile survival, both of which can be linked to predation and habitat disturbance. The long-term persistence of the species will rely on sufficient healthy and well-functioning habitat.

Where are sage-grouse now?

While the EPO was a step forward in protecting greater sage-grouse, and

conservation efforts have so far prevented the extirpation of the species, sage-grouse are still in danger. Populations of sage-grouse remain low, at an estimated 250 individuals in Canada. In 2022, Alberta counted 22 males on leks, indicating the species has once again declined. The species occupies just six percent of their historic range in Canada, with an estimated 4000 km² of habitat remaining in Alberta. The EPO protects only a portion of this habitat.

The story of the sage-grouse always comes back to habitat. Human development continues to present a major threat to sagebrush ecosystems, and as sagebrush is lost, so are the sage-grouse. On top of the usual threats of agriculture and oil and gas expansion, renewable energy projects are beginning to infringe on the remaining grasslands. Most recently, helium prospectors have turned their sights on southeast Alberta, placing crucial sage-grouse habitat at risk. Protection of sage-grouse and the sagebrush habitat they rely on is critical to preventing extirpation and extinction of this magnificent native species.

Once, millions of sage-grouse flocked across the Great Plains. Since then, sage-grouse populations have declined by over 95 percent. The Emergency Protection Order, along with recent conservation efforts, have slowed the species decline and offered hope for recovery. Now is the time to build on these actions, protect the remaining sage-brush, and return the sage-grouse to some of their former glory. 🌿

What can we do to help sage-grouse?

- **Don't intrude on leks.** Sage-grouse are highly sensitive to noise and disturbance, particularly during lekking. Reducing noise and staying away from leks allows sage-grouse the space to perform their mating rituals.
- **Write to the Environmental Ministers about sage-grouse.** Sage-grouse and sagebrush habitat remains under threat. The EPO protects only a portion of sage-grouse range, while cultivation and energy development continue to encroach on sagebrush habitat. To protect sage-grouse, the EPO should be expanded. Write to your Environmental Minister to make them aware of sage-grouse threats and argue for the expansion of the EPO area.
- **Protect sagebrush habitat.** Conversion and degradation of native grassland remains a major threat to sage-grouse habitat. Protecting the remaining landscape is vital. Encourage responsible land use by protesting against conversion of remaining native prairie, supporting responsible grazing management on rangelands, and promoting revegetation of cultivated and degraded areas.
- **Encourage reclamation and habitat improvement.** Infrastructure from abandoned oil and gas wells can fracture sage-grouse habitat and benefit predators. Continuing reclamation of orphaned wells and other abandoned structures can reduce the vulnerability of sage-grouse to predation. Conversely, actions such as adding fence markers can prevent sage-grouse collisions. Advocate for the continued reclamation of orphan wells and installation of wildlife-friendly fencing to reduce sage-grouse mortality.

Sage-grouse Conservation in the United States:

An Update on the Sage Grouse Initiative

By Ruiping Luo, AWA Conservation Specialist

Canada is not the only country with greater sage-grouse. In fact, Canada contains only the northern tip of their range. The majority of their sagebrush habitat lies in the United States, where sage-grouse can be found across 11 states. Current population estimates are at between 200,000 and 400,000, much more than the few hundred found here in Canada, but far fewer than the 16 million estimated to have once roamed the sagebrush lands of western North America.

Like Canada, sage-grouse populations in the states have experienced a sharp decline, especially in the last few decades. In 2010, the US Fish and Wildlife Service found that the greater sage-grouse was warranted for protection, though precluded from listing due to higher priorities. That year also saw the start of the Sage Grouse Initiative.

Led by the U.S. Department of Agriculture's Natural Resources Conservation Services (NRCS), the Sage Grouse Initiative focuses on the use of voluntary, incentive-based approaches to conserve rangelands. It is funded through the US *Farm Bill*, legislation passed roughly every five years that includes conservation on working lands, or any lands used to support livelihoods. Not only are many of the conservation practices beneficial to sage-grouse, they help to sustain ranching operations, which face many of the same threats. As the saying goes, "What's good for the herd is good for the bird." As I was curious to learn more about the program, I spoke to Dr. Dave Naugle, the Sage Grouse Initiative's science advisor at the University of Montana in Missoula.

As Dr. Naugle told me, what they do is "work with landowners to implement beneficial practices for their grazing operations that also benefit wildlife." Partnerships are important – much of the work could not be completed without the cooperation of ranchers, and the Initiative is aided in its work by collaboration with conservation districts, non-government organizations, corporations, and academic institutions.

The approach has been well received, and has expanded in recent years, becoming Working Lands for Wildlife and extending its work east into the Great Plains grasslands. It now operates under two frameworks: the USDA's *Framework for Conservation Action in the Sagebrush Biome* and the *Framework for Conservation Action in the Great Plains Grasslands Biome*. Together, the two frameworks cover nearly all rangelands in the western half of the United States.

In the sagebrush biome, four main threats are addressed: exotic annual grass invasion, land-use conversion, woodland expansion and the degradation of mesic areas, or areas with a moderate supply of moisture. Using satellite mapping, they are able to identify and target core

areas of intact grasslands, where they can have the most impact against threats, and concentrate on proactive, low-cost solutions. Another tool they employ is conservation easements. These are one-time payments made in return for letting go of certain rights on the land, preventing cultivation or development. Since inception, the Sage Grouse Initiative has invested \$580 million, and conserved over nine million acres, nearly 10 times the sage-grouse habitat remaining in Alberta.

The Sage Grouse Initiative has been successful in achieving conservation through voluntary programs. They are helped in part by federal legislation, such as the *Farm Bill*, and by state regulations, including the statutory limits to oil and gas well density which can prevent extensive fracturing of an area. The Initiative is then able to secure voluntary easements atop those lands to prevent their loss to housing development or crop cultivation. Cultivation, urban and industrial development and invasion of non-native plants and woody conifers have fragmented the sagebrush landscape. Slowly, with hard work and through multiple partnerships, the Sage Grouse Initiative is winning some of the land back for sage-grouse. 🐦



A greater sage-grouse chick resting within its prairie habitat in southern Alberta.
Photo © W. Lynch

Carbon Capture: The False Prophet of Climate Salvation

By Phillip Meintzer, *AWA Conservation Specialist*



According to the United Nations' Intergovernmental Panel on Climate Change (IPCC), we have less than eight – EIGHT! – years remaining to cut global emissions in half by 2030. IPCC experts have warned humanity that emissions reductions are paramount if we are to avoid more than 1.5° of global warming, and the worst impacts of the climate crisis that would follow. As we inch ever closer to this looming deadline, there is an increasing urgency to innovate and implement technologies to help remove emissions from our atmosphere, to decarbonize human activities, and to protect the planet we call home.

Carbon capture, utilization, and storage (or CCUS) is one of the many technologies being touted as a solution to help us remove greenhouse gas (GHG) emissions from our atmosphere in the face of climate change. CCUS is a multi-step process that attempts to produce concentrated carbon dioxide that can be transported and stored. The process aims to prevent carbon dioxide from entering the atmosphere at the point of production, such as in the smoke stacks of fossil fuel power plants. This captured carbon is then compressed, transported, and typically stored underground, but it can also be used for other industrial purposes.

These technologies are heavily promoted by the fossil fuel industry as a way to minimize or neutralize the emissions from their operations. Carbon capture might help to offset emissions created through the production of fossil fuels, but it doesn't help in any way to offset those produced when oil

or gas are burned by consumers. AWA recognizes that carbon capture will likely form a part of our toolkit in the fight against climate change, but if we are to meet our climate commitments and make a real difference, any implementation of CCUS needs to be paired with an overall reduction and the eventual phase out of fossil fuel production.

Canada is one of the largest producers of greenhouse gas emissions in the world (both per capita and total emissions), so we have a greater responsibility to do our part in reducing emissions to prevent climate disaster. The Government of Canada signed onto the *Paris Agreement* in 2015 – a legally-binding international treaty – committing Canada to 40 to 45 percent GHG reductions by 2030, and net zero by 2050. To meet these climate targets, recent findings show we must be significantly more aggressive with our phase out of the fossil fuel industry than we have been to date.

A February 2021 article by Dan Welsby et al., published in *Nature*, found that the majority of all currently-known fossil fuel reserves must remain in the ground to allow for a 50 percent chance of limiting warming below 1.5°. A May 2021 report by the International Energy Agency stated that all new fossil fuel development projects must be halted in order to meet net zero emissions by 2050, and we will likely need to close half of all existing fossil fuel production facilities prematurely according to research by Kelly Trout et al., published in May 2022. Any one of these scenarios alone is bad news for the fossil energy sector, and these corporations are looking

to carbon capture as a potential saviour. Corporations hope that they will be allowed to continue operations so long as they are judged to be carbon-neutral. What is increasingly concerning is that governments at all levels seem more than willing to proceed down this path, rather than limiting or scaling back production.

In April 2022, the Government of Canada (GoC) announced its most recent federal budget, which included substantial incentives for the development of CCUS technologies. These incentives included a 50 percent tax credit for investments into projects that capture and store carbon, and a 37.5 percent credit for investments into equipment for carbon storage and transportation. The GoC expects these credits to cost \$2.6 billion over the next five years (starting in 2022-23), with annual costs of \$1.5 billion from 2026 until 2030. These credits will be reduced by half from 2031 onwards in an effort to encourage industry to invest in these technologies sooner rather than later. By contrast, the federal government announced \$780 million over the next five years to support nature-based climate solutions as part of this same budget – on top of \$4 billion already committed as part of the Natural Climate Solutions Fund. This funding is intended to support projects that plant trees and conserve, restore, and enhance wetlands, peatlands, and grasslands for the natural capture and storage of atmospheric carbon. It's encouraging that the GoC is taking a diversified approach to their investments into climate solutions, but CCUS still looks to be receiving more than their fair share of taxpayer dollars.



Oil and gas companies are hoping that carbon capture will allow them to continue business as usual operations without reducing production.
Photo © C. Wearmouth

The Government of Alberta (GoA) has also contributed public money to the development and implementation of CCUS technologies in our province. In November 2021, the GoA announced that seven Alberta-based CCUS projects would receive \$100 million in government funding with the explicit intent of reducing emissions in the energy sector. But rather than seeking to phase down and phase out fossil fuel operations in the province, this investment seems intended to prolong business as usual scenarios through offsetting. Investments into climate solutions are a step in the right direction more broadly, but the effectiveness of operational CCUS projects has been questionable to date.

Two industrial-scale CCUS projects are already underway in Alberta – Shell's Quest project and the Alberta Carbon Trunk Line, with \$1.24 billion spent between them. A recent report from Global Witness, released in January 2022, highlighted that Shell's Quest CCUS project has produced more emissions

than it has been able to capture. The Quest plant, located near Edmonton, emitted 7.5 million tonnes of GHGs between 2015 and 2019, 2.5 million more than it was able to capture over this same time period. These findings have raised serious doubts over the claims made by industry in favour of this technology. Based on these findings, we should question any further investment of public money into these technologies. If CCUS is to be pursued, it should be paid for out of the wallets of corporations. The public should not be subsidizing an industry that's directly fuelling the climate crisis.

Another aspect of this issue is that many of the fossil fuel corporations pursuing CCUS are doing so for the sake of 'enhanced oil recovery.' This is a process that involves taking the compressed carbon dioxide captured through CCUS and injecting it deep underground for greater oil recovery. Extracting additional oil from the ground gives industry additional revenue and lowers the overall

cost of implementing CCUS into their operations. This is likely part of the reason they are such vocal supporters of this technology. Unfortunately for the planet, the carbon dioxide used in enhanced oil recovery doesn't permanently remain underground, with evidence showing that up to 70 percent escapes back into the atmosphere. Encouragingly, these enhanced oil recovery projects are disqualified from the CCUS incentives available as part of the recent federal budget.

Thinking about nature-based solutions to climate change, Alberta is fortunate to be blessed with one of the greatest carbon storage tools available on the planet. Peatlands, such as bogs and fens, are wetlands dominated by the growth of sphagnum (or peat) mosses. Alberta's boreal region contains more than 100,000 km² of peatlands, roughly 11 percent of the total peatland area existing across Canada. According to the International Union for Conservation of Nature (IUCN), peatlands are critical for

preventing and mitigating climate change, in addition to preserving biodiversity and clean drinking water. Peatlands occupy only three percent of Earth's terrestrial surface area, but store a staggering 30 percent of all land-based carbon – more carbon than all other vegetation types in the world combined. This means that peatlands are the best terrestrial carbon storage we have available to us, and one of the strongest tools we have at our disposal for preventing the worst impacts of climate change.

The IUCN recommends that peatland protection, conservation, and restoration should be included by countries in their international commitments to the fight against climate change and biodiversity loss. Unfortunately for us, much of Alberta's oil and gas development occurs across the boreal region, overlapping with many of our most significant peat deposits. This means that our peatlands are constantly at risk of fragmentation, desiccation or outright destruction for new or expanding fossil fuel extraction projects. When you consider the amount of carbon contained within these ecosystems, their destruction poses a major threat to our climate goals. Destroying peatlands not only releases stored carbon back into the atmosphere, but it also hinders our ability to capture and store those emissions in the future. Furthermore, destroying peatlands to make way for the creation of new oil and gas infrastructure will only result in pumping more GHGs into our atmosphere. Peatland destruction is a threat to our own survival.

It would be reasonable to expect Alberta to be taking the lead in peatland conservation to maximise its carbon-storage potential, but this is not the case. For example, the Fort Hills Oil Sands Project (FHOSP) intends to destroy a sizable portion of one of Alberta's most beautiful peatland ecosystems as part of its planned expansion. The McClelland Lake Wetland Complex (MLWC) lies 90 kilometres north of Fort McMurray and contains a rare ecosystem known as a patterned fen – featuring long rows of peat ridges separated by shallow pools of water. The expansion of the Suncor-

owned FHOSP is proposed to begin excavation and draining in MLWC in 2025 pending AER regulatory approval. Not only will this project destroy a valuable and charismatic peatland, but the mine is scheduled to operate until 2060, producing oil ten years beyond 2050, when Canada is legally committed to reaching net-zero emissions to stay on track with the IPCC 1.5° targets. Rather than pouring more money into unproven carbon capture technology to offset fossil fuel production, we would be better off protecting our remaining peatlands.

Another AWA concern with the growing emphasis on carbon capture is the potential for an even larger footprint on the landscape from CCUS infrastructure, which might include capture and injection facilities, pipelines, and monitoring wells. The development and expansion of CCUS without being paired with the decommissioning and reclamation of other infrastructure will only create one more land use pressure on an already fragmented landscape. Literature describing the area of surface disturbance that's required for the construction and operation of CCUS is hard to find, and we cannot support any new development that would increase land disturbance and further threaten Alberta's wilderness ecosystems and biodiversity. The cumulative effects of existing industrial disturbances on the landscape are not well understood and, as things stand, implementing CCUS would only add another level of disturbance into the mix.

Such concerns are not specific to Alberta alone. On June 9, 2022, the City Council of New Orleans, Louisiana, voted unanimously to prohibit the underground storage of carbon dioxide and the associated facilities intended for the purpose of carbon storage. This decision was the result of work done by the Deep South Center for Environmental Justice (DSCEJ). The DSCEJ pushed local authorities to consider the potential consequences that carbon storage might have on marginalized communities in the region who have suffered at the hands of the fossil fuel industry for decades. The DSCEJ were concerned about how

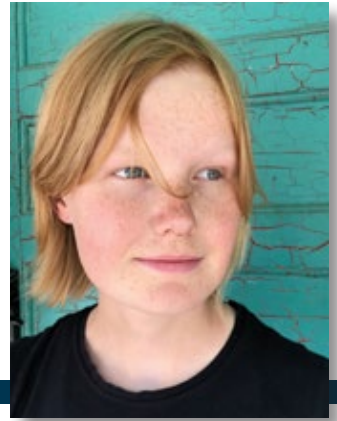
the storage of carbon dioxide would be regulated, the potential for pipeline leaks due to the corrosive nature of condensed carbon streams, and potential groundwater contamination from the breakdown of underground disposal sites. AWA believes the aggressive stance New Orleans has taken against the development of CCUS might set a significant precedent that other municipalities could pursue.

The history of fossil fuel extraction has not been kind to the Indigenous communities within and/or downstream of the oil sands region of Alberta. Harm from this industry has included the displacement from – and destruction of – traditional territorial lands as well as the pollution (i.e. air, water, and noise) of once pristine ecosystems. The decision made by New Orleans due to concerns over the negative impacts to marginalized communities provides an example of local governments prioritizing the health and wellbeing of people over corporate profits. Protecting and restoring Alberta's wilderness and prioritizing the wellbeing of Indigenous communities is long overdue.

With only eight years remaining until 2030 and the need to begin rapidly decarbonizing our entire way of life, we need to question the choices governments are making to support CCUS. Carbon capture may be one tool for helping address the climate crisis, but other solutions exist – like protecting our incredible peatlands. AWA believes we need to invest at least an equal amount in the protection and restoration of Alberta's wilderness. AWA cannot support public investments into the development of CCUS unless it is paired with the decommissioning of existing fossil fuel infrastructure and reduced oil and gas production. Carbon capture permits business as usual, allowing oil and gas corporations to continue to profit from products that generate emissions, and leaving the majority of the world to suffer if we fail to meet our climate targets. 🌱

Youth Climate Activism in Alberta

By Sadie Vipond



My name is Sadie Vipond, and I am 16 years old. I have been involved in climate action ever since I was 12, and I continue to this day. I participate in climate activism because I feel that the wild places and living organisms do not deserve the changing climate impacts that we as humans are inflicting upon them. I spend my time in forests, parks and beautiful natural places and I passionately feel that I need to protect these areas.

I am part of *LaRose vs. Her Majesty the Queen*, a legal case against the federal government to fight for a safe climate future. Myself and 14 other young people from across Canada are asking the Federal government to take adequate action on climate change. We're not suing the government for money. Our ask is this: We want the federal government to implement a science-based climate recovery plan to reduce Canada's greenhouse gas emissions, prevent the dangerous effects of the climate crisis and ensure that Canada meets science-based climate targets. In the past, in the present, and unfortunately – but most certainly – in the future, the government has violated mine and my fellow plaintiffs' Charter rights to life, liberty, and security of the person, to equality, and my public trust rights, by contributing to the climate crisis by continuing to support and promote fossil fuels. For decades, the federal government has known that climate change and fossil fuel use threaten the life and personal security of children, but it continues to take actions that harm our generation and those

to come by enabling further fossil fuel extraction and combustion.

I actually started to worry about the climate crisis when I saw the effects around my city. Calgary has been enveloped by wildfire smoke on an almost annual basis, changing the colour of the sun and worsening the air quality. I'm sure we all remember the flooding that happened in Calgary a decade ago. When we have heavy rain, I worry that there will be more consequences, that floods will return, in bigger volume, with even greater damage to our city. These events have not been caused solely by the climate crisis, but their severity and frequency have increased because of the climate crisis. With these regular, very visual reminders of our changing climate, it is always hanging over my head, like a ticking time bomb.

Young people will be the ones forced into taking on this challenge, having to deal with the impacts even though we didn't even cause them. The effects of climate change are ramping up as time passes and our carbon emissions pile up. Through this case, politicians have heard the voices of young people, and this is so important because this issue concerns my future and every other young person's future as well. Politicians impact the planet nearly every time they create a law or regulation, as most human activities can be related to the climate.

We first went to court in October of 2019, and I honestly thought that we would be successful. Unfortunately, that did not happen. Our case was struck down by the federal courts. I remember I was in science class when I got a text

from my dad breaking the news to me. The rest of the science class was going on around me, but I just felt numb to the world. I just couldn't understand why the judge didn't side with us, because the effects of climate change on young people are so evident to me. I was confused and upset, and I still am. I still don't understand why the governments are choosing to ignore this issue for their own benefit. They are choosing to enable short-term corporate profits over long-term safety and security, and that is so worrying to me. It makes me feel very powerless. I don't know how to save the planet from greed.

I think that is why I love being a part of this case. I feel like I'm actually doing something meaningful, whether it is making a change or not. It lifts the feeling of helplessness. Of course, all the eco-anxiety doesn't just go away, but it helps. Honestly, if we succeed or not, I think that we have really gotten the word out there, that young people are suing the government for inadequate climate action, and I think that is really important. We are currently appealing the most recent decision, and continuing to go forward with this fight. But whether this case amounts to something or not, I am glad to be a part of it, to fight for my future and for my world. ♡

Sadie Vipond is a youth climate activist based in Calgary, Alberta.

Red Tape Reduction Raises Red Flags

By Nathaniel Schmidt, AWA Director



Bill 21, the *Red Tape Reduction Act*, is the latest piece of legislation from the Alberta Government that promises to streamline bureaucratic processes across a variety of provincial government responsibilities, while putting the management of our public lands at risk. This Act follows the earlier *Red Tape Reduction Implementation Acts* (receiving royal assent in 2019, 2020 and 2021) that similarly pledged to eliminate bureaucracy under the guise of efficiency and economic freedom.

However, hidden behind these promises is the risk of potentially destructive outcomes less likely to make it into a government press release. One area in particular that looks likely to be negatively affected by this legislative initiative is the management of Alberta's public lands through amendments to the *Public Lands Act* and the *Provincial Parks Act*.

Premier Jason Kenney made the following comments about the purpose of these changes:

"We're going to take Alberta from being the most over-regulated to the freest economy in Canada. We aren't just saying we're reducing red tape – we are making it the law. We're committed to cutting red tape by one-third – and once we cut it, we will prevent new red tape from creeping back."

The Government of Alberta website explaining the Red Tape Reduction initiative paints a similarly rosy picture, referring to improved efficiency and savings in areas such as motor vehicle licensing, liquor sales, economic innovation, and occupational health and safety. On the surface, this all may sound like a great idea. After all, who wouldn't

want to save money while getting things done faster?

But the changes found in Bill 21 will fundamentally alter how our public lands are managed and our government's responsibility to publish regulations. Previously, any proposed regulatory changes under both Acts had to be brought before the Lieutenant Governor in Council (which refers to Cabinet) and then published on the public record, with notices on ministerial websites.

The Red Tape Reduction initiative replaces this process – which was already lacking in transparency itself – and makes it worse. It does so by centralising control in the office of the Minister and eliminating all but the most minimal publishing requirements. These changes are contrary to established norms in the democratic process that prioritize transparency, publicity and accountability in government decisions, attributes that were already sorely lacking in the management of public lands.

Another concerning change is the type of directives and policies that may be adopted in new regulations. For example, the amended section 1.1(1) of the *Public Lands Act* now allows a Minister to adopt "without limitation" the rules of any government, board, agency, association or person into the regulations affecting public lands. Just what these rules might be and who they come from is entirely in the hands of the Minister, who is no longer under any obligation to publish decisions other than as a posting on a website.

Taken together, these shifts could have significant effects on our public lands, following a concerning pattern from the current government in their approach

to established, public environmental goods. Other examples that come to mind include proposed changes to the parks system, coal policy, environmental monitoring, and conservation. Like all these past decisions, the government is prioritizing short-term economic development and private interests over the long-term preservation of our environmental assets. Furthermore, in all these examples, the government is attempting to minimize transparency in the hopes that no one notices.

So far, Albertans have paid attention when it matters most. But these amendments place an unsustainable level of vigilance on the public and media to discover changes affecting our public lands. In practice, we will all have less access to what our government is doing and less knowledge of why they're doing it. As a result, our role in what happens to our public lands will be greatly diminished.

This should be concerning to anyone interested in the health of our environment and equitable access to public lands. They contain some of the largest remaining areas of intact ecosystems and are already under immense stress from competing interests and uses. Furthermore, by taking away one of the few existing mechanisms to access the decisions being made, the United Conservative Party (UCP) is ensuring their decisions, and those of future governments, risk being made without proper scrutiny.

Readers of the *Wildlands Advocate* may be familiar with a story from the beginning of the UCP's term, which shows exactly why more, not less, regulation is needed. In late March 2020

the Alberta government auctioned off a parcel of Crown land near Taber to an anonymous bidder for \$460,000 (that bidder was a large-scale potato farmer who has turned this former grassland into a potato crop). This followed a promise from then-Environment Minister Jason Nixon who stated that “We are not selling any Crown or public land - period.”

Under the new legislation this problem could become widespread, as preference for private economic interests and user groups is written right into the amendments and press releases. As discussed, the Minister now has wide discretion to approve rules from private organizations and individuals mostly in secret. The official Red Tape Reduction website states that Bill 21 “Eliminates the need for Albertans who use Crown lands for business or recreation to comply with restrictive or onerous requirements where such requirements are not necessary.” Who defines what is restrictive, onerous or unnecessary? And how will the public know when rules change?

This outcome is a feature of the new legislation, not a bug; prioritizing high impact users (e.g. industry and off-highway vehicles), and secrecy over conservation, preservation, and transparency. Again, this is part of a pattern. Recent amendments to the *Public Lands Act* through Bill 79, the *Trails Act*, demonstrate this imbalance. These amendments allow the Minister to designate new recreational trails (including motorized access trails) on public lands at will, with limited publication and no scientific consultation. Like Bill 21, this leaves the door wide open for abuse and misuse of a public asset by private interests.

Users of public land may also run into problems as they try to navigate what could become a patchwork of rules from region to region. The current system already presents difficulties when trying to figure out which public land you're permitted to use, when you're allowed to use it, and who to ask for permission. Once more, this is the intention of Bill 21. Government materials state that this “Supports an outcome-based approach to managing activities on Crown land

by allowing the development of locally specific rules and moving away from the ‘one-size-fits-all’ approach in regulation.” The outcomes the government plans to prioritize are unknown. Given their track record on similar issues, we all have reason to be concerned.

Some may argue that the public's chance to express disappointment with government decisions comes at the polls. But when we elect governments, we don't give them unlimited power to make decisions. They have a responsibility to tell us what they're doing on the public record. These changes circumvent legal and normative principles that are meant to increase transparency, encourage debate, and facilitate public comment.

Ideally, this system would have been made more transparent. The regulatory system currently governing our public lands is already a patchwork that largely fails to consider environmental impacts. A better model would be a system such as the federal Regulatory Impact Analysis Statement which publicizes the issues or problems a regulation is addressing and why government intervention is needed. This would have allowed Albertans to know and understand the changes being made to their public lands. Instead, we will be left guessing.

Other questions about Bill 21 remain, such as the continued role of public lands management policies like Regional Land-Use Plans (which are themselves in need of some serious work). But regardless of the state of Regional Land-Use Plans and other policies, the loss of the requirement to at least consider priorities other than those determined by the Minister is problematic.

What the UCP refers to here as “cutting red tape” is actually the gradual dismantling of accountability and transparency. These changes allow the government to sidestep responsibility and push through an agenda that completely ignores the public interest.

This should be a non-partisan issue. People of all political stripes deserve to know what their government is doing and why they're doing it. No one should support more secrecy in government, even if it happens to benefit your own

interests. We should not stand for special interest groups, powerful individuals, or opportunistic leaders taking control over and exploiting a public resource as valuable as our public lands.

The bottom line is that our public lands are facing more pressures than ever. Our growing population continues to increase the demands for natural resources, ranching, and farming while at the same time, the worsening effects of climate change are making this same land more fragile. We need more oversight - not less - to ensure our public lands are properly managed in an increasingly challenging environment. What the *Red Tape Reduction Act* offers is nothing more than a rubber stamp for the Minister and their government to do whatever they believe is best, effectively removing the “public” from public lands. ▲

Nathaniel Schmidt sits on the AWA Board of Directors and has been involved with the organisation since 2017. He recently finished his law degree and is currently working in criminal defence with Legal Aid Alberta



The Red Tape Reduction Act threatens the management of Alberta's public lands, such as Bob Creek Wildland Provincial Park (pictured). Photo © N. Petterson

Coal is Still a Concern

By Devon Earl, *AWA Conservation Specialist*



This spring, Albertans breathed a sigh of relief when the Government of Alberta made the decision to pause temporarily all new coal exploration and development on the Eastern Slopes of the Rocky Mountains, following recommendations by the Coal Policy Committee. While this was a step in the right direction, Albertans are still waiting for a future without coal on our beloved Eastern Slopes to be enshrined into legislation through subregional land-use planning. Despite the relative silence on the coal file in Alberta over the past few months, it remains a hot topic on the world stage.

In June 2022, the United States government called for Canada to join in an assessment of cross-border water contamination from Teck Resources Ltd. coal mines in British Columbia. The five active open-pit coal mines in the Elk River Valley release selenium into the Kootenay watershed (spelled “Kootenai” in the United States), affecting water quality and fish in the downstream states of Montana and Idaho. The US Government is now calling for Canada to join them on a reference (also known as a request) to the International Joint Commission (IJC) to look into water quality issues resulting from these coal mines.

The IJC conducts assessments and facilitates solutions for cross-boundary water pollution issues. Canada and the United States both have obligations under the *Boundary Waters Treaty* not to pollute waters flowing across the boundary to the injury of health or property of the other. IJC’s aim is to mediate water disputes between jurisdictions, and it

generally operates jointly with both countries involved. The assessment would determine the extent of pollution issues and provide recommendations to solve the identified problems. Canada and the US have collaborated on these joint references in the past; however, the Canadian government has not committed to joining the reference in this case.

In April 2022, Global Affairs Canada provided a written notice to Ktunaxa Nation in B.C. that they were rejecting the reference proposal. Ktunaxa Nation and several other First Nations have been requesting a reference to the IJC since 2012 due to water quality issues and consequent health concerns. Canadian officials have since indicated that they have not ruled out the possibility of an IJC reference, contradicting their earlier communications with Ktunaxa Nation.

These water quality issues in the Kootenay (Kootenai) basin are not new. Fish populations such as burbot have been declining in Lake Koocanusa since the late 1980s. In many cases, the levels of selenium measured in ovary tissues of fish in Lake Koocanusa have exceeded the threshold where fish are likely to experience harmful effects. In 2020, a study looking at selenium in fish tissue samples showed increasing levels compared to previous years. Elevated levels of selenium in water can cause reduced reproduction, embryo toxicity, and deformities in young fish.

Once water has been contaminated with coal mine pollutants such as selenium, those pollutants are extremely costly if not impossible to remove. Additionally, the nature of water is that it traverses boundaries, giving life to – or harming

– all the many beings, including people, living downstream of that contamination. In Alberta, even though there is no new coal exploration or development allowed on the Eastern Slopes, there are still environmental concerns associated with existing mines, reclamation of inactive mines, and the footprint associated with coal exploration to consider.

In the McLeod River watershed, long-term trends in surface water quality have been studied in relation to two inactive mines undergoing reclamation (Luscar and Gregg River mines, inactive since 2004 and 2000 respectively) and one active mine (Cheviot mine, active since 2005). Reclamation activities at the Luscar and Gregg River mines have affected water quality in the Luscar Creek and Gregg River respectively, which are both tributaries to the McLeod River. Data from 2005 to 2016 shows elevated selenium levels in both water bodies downstream of the inactive mines compared to upstream reference sites. In addition, concentrations of most metals and dissolved solids that were measured in these water bodies were also elevated downstream of mining compared to upstream. Although the concentrations of selenium and other metals decreased over time with reclamation activities, many were still above the threshold that is recommended to preserve healthy aquatic life, including fish. This shows that while reclamation activities are important in improving water quality, the effects of coal mining on water quality are persistent long after the cessation of mining. As expected, surface water quality in the McLeod River downstream of the active Cheviot Mine also showed elevated levels of selenium,

other metals, and dissolved nitrogen.

The elevated selenium observed in fish eggs in the tributaries of McLeod River translated to adverse effects on rainbow trout fry (the lab-raised offspring of mature fish captured in the mine-affected area of Luscar Creek, Gregg River and unaffected reference sites). Though deformities were observed in native rainbow trout, this trend was not observed in brook trout, an invasive species. This is notable because it shows how human activities are impacting the ability of native trout to compete with introduced species. This likely has implications for Alberta's other endangered native salmonids such as westslope cutthroat trout and bull trout. Reclamation activities are essential to improve water quality after coal mining, but are often not enough to counteract all negative impacts from coal mining in the decade following mine closure.

One of the challenges of coal mine reclamation is returning the land to the functionality that it had prior to mining. Particularly when it comes to open-pit mines, this is often an unachievable

goal. Take for example Benga's proposed Grassy Mountain mine. Grassy Mountain was expected to destroy approximately 21,000 endangered whitebark and limber pine trees. Benga proposed that at year 15, they would start planting three times the number of tree seedlings that they destroyed to mine the coal. However, 86 percent of the steep slopes in the mining area would have been eliminated. These steeper slopes are important habitat for whitebark pine because they allow this species to outcompete other species that prefer flat ground or gentler slopes. The resulting landscape after reclamation was unlikely to be suitable habitat for this species. This is just one example of how reclamation is often inadequate in returning the landscape to the same functionality that it had before. Of course, in the case of Grassy Mountain, Benga's poor reclamation strategy (if it can be considered a strategy at all), was one reason that the project was rejected by the Joint Review Panel.

In addition to active coal mines and mines undergoing reclamation, there is also the issue of reclaiming the

disturbance on the Eastern Slopes from coal exploration following the rescission of the 1976 Coal Policy in 2020. This decision opened up many previously-protected lands to coal exploration, resulting in hundreds of kilometres of new roads for industrial access and drill sites on the landscape. This type of development disrupts wildlife movement, vegetation communities, and water quality. Roads are difficult to reclaim and lead to sedimentation which affects water quality and fish habitat, and habitat fragmentation disrupts wildlife movement and ability to find food and mating opportunities. Access roads also contribute to the linear disturbance on the landscape from all human use. Linear disturbance and all other disturbances taken together have a massive cumulative impact on the environment.

AWA would like to see land-use planning set science-based limits on linear disturbance and industrial development, including a ban on all coal mining on our Eastern Slopes, which are vitally important headwaters that provide a suite of irreplaceable ecosystem services. 🐟



The presence of harmful substances such as selenium can persist in watercourses downstream of inactive or reclaimed coal mines. Elevated selenium concentrations pose an increased risk to the health of Alberta's native trout species such as Athabasca rainbow trout (pictured) who rely on these streams and channels for survival. Photo © P. Meintzer

Saving the Caribou:

West Central Alberta Closing in on Action

By Gillian Steward



For untold generations, hundreds, likely thousands of caribou roamed the old growth forests and alpine meadows of west central Alberta around Grande Prairie and Grande Cache. But those caribou herds have been dwindling for decades and could soon die out due to rapid industrial development of their habitat and feeding grounds. Today, their numbers are counted in the dozens.

“We are running out of time because of dramatic range recession due to increasing human disturbance,” says Dave Hervieux, the Caribou Management Coordinator for Alberta Fish and Wildlife, a division of Alberta Environment and Parks (AEP), who has been on the frontlines of the fight to save the caribou for 39 years.

The caribou have been tracked, studied, and discussed in dozens of government committees and reports. No jurisdiction in Canada has studied them as much and for so long. But their numbers continue to decline anyway because all the research and discussion hasn’t led to much change. Forestry, petroleum, and coal corporations still resist efforts to curtail their operations within caribou ranges. The Alberta and federal governments could force them to rein in their operations in favour of the caribou but they seem to prefer delaying significant action rather than restraining the resource industries.

There is one ray of hope that could improve the odds for the caribou in this area. AEP is developing what are known as caribou sub-regional land-use plans. The draft plan for the Upper Smoky sub-region, which extends southwest of

Grande Prairie down to Grande Cache, will likely be released sometime this year. Public consultations will follow – that’s when Albertans, including First Nations and Métis, will have a chance to weigh in on how that land should be managed so that caribou can not only survive but hopefully thrive.

There are two herds in the Upper Smoky; as of 2019 Government of Alberta wildlife biologists estimate there are 153 caribou in the Red Rock Prairie Creek herd and 56 in the Narraway herd. In 1966 government biologists estimated there were 1200 to 1600 caribou in this region. As of 2017, 71 percent of the Red Rock Prairie Creek winter caribou range had been disturbed by forestry, mining, petroleum facilities, or roads. Almost all of the Narraway winter range – 84 percent – has been disturbed by industrial activity.

“The only thing we have to do is protect their winter habitat,” says Brian Bildson, a trapper who knows this country like the back of his hand. “That’s all we gotta do. And it’s not that huge an area. We are not talking about saving the whole province of Alberta but there doesn’t seem to be the will.”

Weyerhaeuser Ltd., often cited as the largest forestry company in the world, is the largest operator in the region by far. It manages 1.1 million hectares (about 2.5 million acres) of forest in the region and has been harvesting timber from the Red Rock Prairie Creek and Narraway caribou ranges for over 20 years. Based in Seattle, Washington, Weyerhaeuser manages 14 million acres of land in Canada (more than in the U.S.) leased to it by provincial governments; one third

of those holdings are in Alberta.

Of all the industrial disturbances, current logging practices obliterate the most caribou habitat. Seedlings will be planted where the trees once stood but it will take 80 years for a new forest to grow into natural caribou habitat full of ground and tree lichens that are the caribous’ main source of nutrition. And yet Weyerhaeuser’s latest government-approved Forest Management Plan continues to include logging on caribou winter ranges.

“We understand that the forestry companies will take some of the forest, that’s the way business works, but do they have to take it all?” says Landon Delorme an Indigenous knowledge holder and trapper. For him the pattern of clear cuts slashed into mountain sides, along the highways, and near his family’s home at Victor Lake is a clearly visible marker of drastic changes to the natural environment.

Since caribou habitat and the caribou are deemed by various First Nations and Métis as essential to their way of life, they are keen to play a key role in the preservation and enhancement of the caribou herds. Earlier this year an agreement was reached between two First Nations (Athabasca Chipewyan First Nation and Mikisew Cree First Nation) in the northeast of the province and the federal government, aiming to establish self-sustaining populations of boreal caribou in four ranges. The hope is that this arrangement could lead to more such agreements for the benefit of caribou.

For trapper Brian Bildson – among many others – it’s long past time for

this kind of action. “We can’t afford two more years of research, three more years of research,” he says, “we need something now, it’s triage time.” 🐾

Gillian Steward is a Calgary-based author and journalist. She currently writes a regular column for the Toronto Star and teaches journalism at Mount Royal

University. She was the managing editor at the Calgary Herald from 1987 to 1990, and was the publisher/editor of Alberta Views magazine in 2006/07.

What’s Next for West Central Alberta’s Upper Smoky Caribou?

By Carolyn Campbell, AWA Conservation Director



For millennia, caribou have roamed their Upper Smoky rangelands in west central Alberta. In recent decades they’ve lost nearly all their intact habitat due to unmanaged industrial impacts. Tragically, these caribou are now propped up by the province’s controversial annual wolf cull.

Alberta is currently in the process of creating a comprehensive land-use plan for the Upper Smoky sub-region. In 2020, to avoid a federal habitat protection order, the government of Alberta promised to:

- Finish an enforceable Upper Smoky land-use plan by the end of 2022; and
- Manage Upper Smoky’s caribou ranges to achieve habitat requirements for self-sustaining caribou.

AWA strongly believes Alberta’s Upper Smoky land-use plan must also support:

- Indigenous rights;
- Habitat for other at-risk species, such as native cold-water fish;
- Forests, river corridors and wetlands that are resilient to climate change; and
- A transition to a diversified, environmentally sustainable regional economy.

Take Action to Help Upper Smoky Caribou

Your voice makes a difference. Citizens can strengthen the draft provincial Upper

Smoky plan. This may be the last chance for these caribou to survive and recover.

AWA supporters can write Alberta Minister of Environment and Parks, Whitney Issik (aep.minister@gov.ab.ca). AWA is calling for an Upper Smoky sub-regional land-use plan that:

- Protects and restores enough habitat for naturally self-sustaining caribou;
- Includes meaningful collaboration with Indigenous nations and communities to support their rights and land-use goals;

- Manages forests, river corridors and wetlands to be resilient to climate change and to recover other at-risk species; and
- Sets strong Decade 1 targets for the urgent progress needed on caribou habitat and Indigenous rights.

And please copy federal ECCC Minister Stephen Guilbeault (ministre-minister@ec.gc.ca) and AWA (ccampbell@abwild.ca). Thank you! 🐾



Alberta southern mountain caribou bull. Photo © J. Marriott



CUB REPORTER



By Kasha MacDonald

Kasha is a grade 6 student who lives in Calgary. She loves running, skiing, camping and anything in the outdoors. When she is not climbing mountains or swimming in lakes, you may find her curled up with a good book. Kasha hopes that the world continues to become more environmentally friendly to ensure these wild spaces remain beautiful for everyone to enjoy.

Sleeping under the Stars

Escaping to wild places is one of my favourite things to do. Lucky for me, I live close to the Rocky Mountains with endless adventure opportunities. In the summertime, I love to hike and backcountry camp in Kananaskis. Heart Mountain is a fun day trip with a scramble route where you need your hands and feet to get up the rocks. Another favourite spot is hiking up to Rawson Lake and around Upper Kananaskis Lake. Spending time in nature, away from the busy city, helps me feel connected to my family. As we hike up to new camping spots to explore, I breathe in the crisp air and keep my eyes peeled for signs of wildlife.

To spot wildlife, you may want to look near water and remember to listen. Marshes are a great place to hear the songs of birds and possibly the sloshing of a moose. When crossing a meadow lush with berries, remember to keep up a conversation and make noise to not surprise a munching bear. As we climb higher above the treeline towards our camp, the rocky terrain provides an excellent habitat for pikas, marmots, chipmunks and if we are lucky we might spot a mountain goat.

Once we arrive at our destination, it's time to set up camp and ensure we are camping responsibly. This means setting up our tent in a designated spot to not disrupt the flora.

In many backcountry camping sites, there are wild animal storage lockers. These are special animal proof containers to store food and

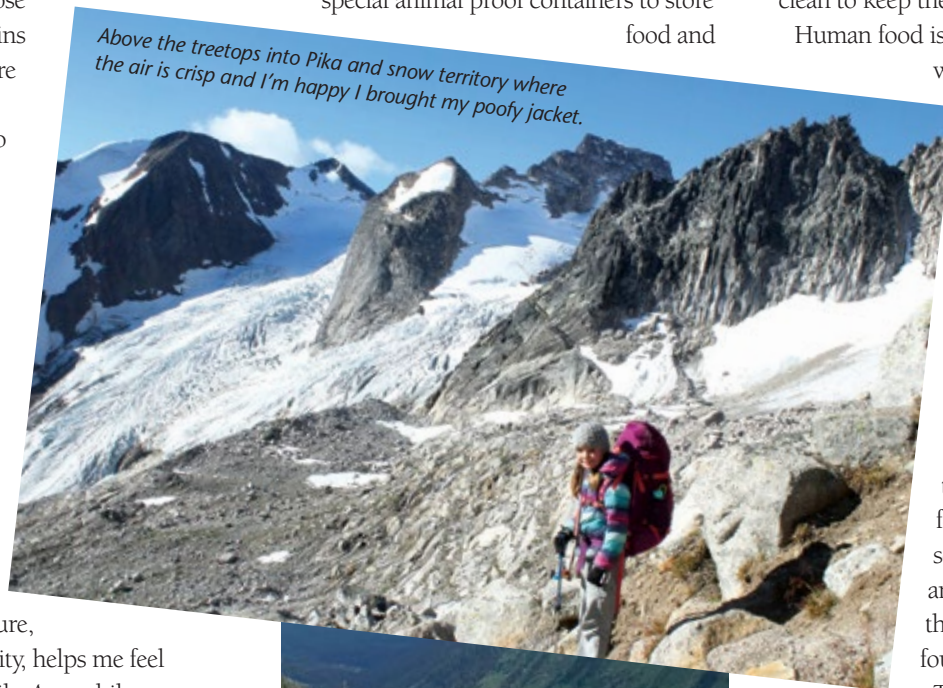
all cooking supplies when they are not in use. It is important to keep your campsite clean to keep the wildlife alive and thriving.

Human food is extremely dangerous for wildlife and can kill them.

When I see people leaving food out for animals, it makes me feel heavy hearted. If animals rely on human food scraps to survive it causes two problems. Firstly, their bodies weren't meant for human food and it can make them very sick. Secondly, if they get used to having easily accessible food, they forget how to source out their own food and will eventually die when there is no human food to be found.

The parks do an amazing job having signage to remind all visitors to respect this. "Pack it in; Pack it out" and "Leave no trace" are important mottos to follow when enjoying these beautiful environments. If I see garbage on the trail, I do my part and pick it up and carry it out with my own waste so that we can continue to enjoy the pristine wilderness. I encourage others to do the same.

Falling asleep, under the stars, listening to the wind blow gently through the tent, snuggled up with my family, my heart is happy and I feel so peaceful. I hope one day you too can explore the Rocky Mountains and experience this beauty for yourself.



Above the treetops into Pika and snow territory where the air is crisp and I'm happy I brought my poofy jacket.



Thankful for a well-maintained trail, complete with ladders to help us get up high with the valley opening up in all its beauty below.

Wilderness Watch

Calgary Airport – Banff Passenger Rail Proposal

You may have heard news of a proposed passenger train that would go from Calgary airport to Banff, with five stops along the way (Calgary Downtown, Calgary Keith, Cochrane, Morley [Stoney Nakoda], and Canmore). Liricon Capital Inc., the proponent of this project and owner of the Norquay Ski Resort, hopes to bring the project to completion and operation by 2025. Liricon claims that the train could reduce greenhouse gas emissions by taking vehicles off the road and by potentially powering the train with hydrogen. AWA and other conservation organizations have many questions about this ambitious goal, and whether a train is the best way to achieve it. We also have concerns about how a train could negatively affect wildlife and habitat connectivity in the already stressed Bow Valley. In July 2022, the Alberta government announced that it is not willing to support this development due to the financial risk of the project.

Banff National Park is already the most highly visited national park in the country, and it cannot support increased visitation while maintaining ecological values. It seems very unlikely that a train from Calgary to Banff would reduce traffic on the highway, as suggested by the proponent, but rather that it may increase tourism overall and therefore increase visitation to the park. In this case, it is unclear how the train will reduce greenhouse gas (GHG) emissions, especially when the proponent has not committed to using hydrogen technology to power the train, which would otherwise be diesel-fueled. A 2018 Calgary-Bow Valley Mass Transit Feasibility Study concluded that a bus could achieve greater reductions in greenhouse gas emissions when compared to a diesel-fueled train. This raises the question as to why a train is being proposed rather than a bus service, if the goal is to achieve GHG emissions reductions.

Additionally, there has to date been no assessment of how wildlife may be

impacted by the proposed train. Trains are already a significant cause of wildlife mortality in the Bow Valley. Grizzly bears, currently listed as threatened under the *Alberta Wildlife Act*, are of particular concern because of their low population numbers – the death of a single bear can have a significant impact on the entire population. Ungulates such as deer and elk are also regularly struck by the CP rail line that runs through the Bow Valley. Along with direct mortality by trains, the addition of another linear disturbance to the Bow Valley impacts habitat connectivity, which reduces the suitability of habitats for wildlife.

If this project were to move forward from the development to the design phase, AWA would expect the proponent to address how wildlife concerns would be mitigated through fencing and wildlife crossing structures, while acknowledging that these concerns can never be fully eliminated.

- By Devon Earl

AER Brine-hosted Minerals Engagement

The Alberta Energy Regulator (AER) is expanding its mandate to include the regulation of minerals under the *Mineral Resource Development Act* (MRDA). The MRDA intends to establish the AER as the lifecycle regulator for Alberta's mineral resources including critical minerals and rare earth elements, in addition to oil, oil sands, natural gas, and coal, which are already under its jurisdiction. Mineral resource development has already been taking place across Alberta; however the regulations have been spread over multiple agencies, and the MRDA seeks to bring these all under a single regulator at the AER.

Across spring 2022, AER hosted multiple information sessions regarding the development of the MRDA and Alberta's Minerals Strategy Implementation. Most of these sessions focused on the development of rules and directives for the extraction of brine-hosted minerals – minerals that reside in underground saltwater reservoirs – which are extracted through the use, construction and operation of sub-surface wells, similar to oil and gas recovery. Examples of brine-hosted minerals include calcium and magnesium, which are already being extracted from brines in Alberta. AER is hoping to have a draft regulatory framework released for public comment this fall, with applications for brine extraction to be accepted in early 2023.

The Government of Alberta's (GoA) push to coordinate and expand the mining of minerals in the province is the result of recent increases in the global demand for lithium for the manufacture of batteries for electric vehicles and other electronics – known as the lithium rush. The GoA wants Alberta to be the preferred producer and supplier of minerals and mineral-derived products in Alberta, Canada, and internationally as the world shifts away from internal combustion vehicles and towards a low carbon economy. Other reasons given during these presentations include diversifying Alberta's economy, creating new jobs, and attracting foreign capital investment.

AWA attended three information

sessions hosted by AER to learn more about the environmental considerations that AER is incorporating into the development of this new regulatory framework. During these sessions AWA and other interested parties such as local landowners expressed many concerns with the expansion of another extractive industry on Alberta's landscape. Our concerns include the extent of new surface disturbance required for mining. Could existing linear disturbance (i.e. roads, power lines, pipelines etc.) be repurposed for brine extraction, or would entirely new linear disturbance be required? We expressed that the reclamation of mine sites needs to be planned for and enforced to avoid abandoned wells and other infrastructure in contrast to what we have seen with the oil and gas industry.

During these sessions, we asked the AER presenters how cumulative effects are being considered in the regions where minerals mining is proposed? They responded that they are still focusing only on developing the rules and directives at this point in time, and that cumulative effects aren't typically under the purview of the AER. According to the presenter, cumulative effects are typically addressed at higher levels within GoA policies. The AER team followed our question by asking AWA if we had any recommendations for incorporating cumulative effects into their regulatory framework? We suggested that AER ensures that they have an adequate understanding of baseline environmental conditions before any development occurs on the landscape. Sufficient data is necessary in advance in order to better understand the impacts of development into the future. Baseline data should be paired with a robust and science-based monitoring program to ensure that the cumulative effects of mineral development are understood and managed sustainably.

We appreciate that the AER was willing to listen to feedback from environmental interests and other stakeholders in the development of this

regulatory framework, but we still have many unresolved concerns regarding the implementation of Alberta's Mineral Strategy. AWA will continue to participate in this engagement process as we approach the release of the draft regulatory framework. We do not want to see the same mistakes repeated from our experience with the oil and gas industry in this new and emerging sector for the sake of Alberta's wilderness and all of us who depend on it.

- By Phillip Meintzer

Responsible Tailings Management Alliance

In April 2022, AWA participated in a kickoff meeting for the newly-formed Responsible Tailings Management Alliance (RTMA). The RTMA is a coalition of concerned parties from across the environmental sector – including both individuals and organizations – focusing on the issue of oil sands tailings and the imminent proposal for the release of tailings effluent into the Athabasca River. The introductory session was the first meeting for those interested in ongoing group participation, although a smaller steering committee has been meeting regularly over the past ten months to get this initiative off the ground. AWA was invited to participate in the inaugural meeting of the RTMA.

As of 2020, tailings ponds in Alberta's oil sands region contain more than one trillion litres of effluent containing toxic substances such as naphthenic acids and high concentrations of salts. The Government of Alberta and the Government of Canada are working together to develop new regulations which would allow for the release of treated tailings effluent back into the Athabasca River. The effluent must meet specific limits for harmful substances. Based on our understanding, the process is being directed by a team

at Environment and Climate Change Canada (ECCC), and they are intending to have a discussion paper released for public comment before the end of 2022, with regulations implemented under the *Fisheries Act* by 2024. AWA is opposed to the proposal to allow for the release of treated tailings into receiving watercourses.

The RTMA is intended to serve as an information sharing hub, where participating organizations can collaborate to strategize and mobilize in a cohesive manner on this important issue. The founding members of the RTMA hope that this coalition will expand to include other passionate and interested groups who share similar goals as it relates to the issue of tailings and those who are willing to work together to prevent the release of these substances back into our natural waterways. The RTMA seeks to ensure that tailings and tailings reclamation are managed in a more responsible manner that meets specific criteria such as (but not limited to) industry covering the costs of reclamation and remediation, respecting the rights of downstream Indigenous communities, incorporating Indigenous traditional knowledge into tailings management, and limiting the creation of new tailings ponds until a scientifically proven approach for reclamation has been determined.

AWA has expressed our interest in ongoing participation as a member of the RTMA, as we do not support the plan by both the federal and provincial governments to allow for the release of effluent back into our already stressed aquatic ecosystems. We look forward to future engagements with the other members of the RTMA and hope we can make a meaningful difference when the proposed tailings regulations are released for comment towards the end of this year.

- By Phillip Meintzer

WaterSMART Drought Simulation Workshop



The Oldman River Reservoir during a drawdown event where water levels have been lowered to meet downstream water needs.
Photo © C. Bradley

In June 2022, I attended a drought simulation workshop hosted by WaterSMART which focused on predicted future drought scenarios in the South Saskatchewan River Basin. The intent of this workshop was to assess current drought mitigation processes and identify gaps in plans, policy, and legislation that can inform the development of the Alberta Environment and Parks' Drought Response Plan. The workshop included participants from various sectors including government, industry, municipalities, and environmental non-governmental organizations (ENGOS).

While participating in the drought simulation exercises, it became increasingly obvious how inadequate Alberta's water allocation system is for meeting both human and environmental needs, especially during times of water crisis. Water licences (and therefore water rights) are governed by the "first in time, first in right" (FITFIR) principle, which means that in times of water scarcity, the licences issued furthest back in time have priority over newer licences.

Irrigation Districts (IDs) in Alberta own many of the oldest and the largest-

volume water licences issued by the Alberta Government under the *Water Act*. FITFIR means that the IDs have priority over the use of the water allocated under their licences, to the detriment of the public (i.e. drinking water) or environmental needs. In times of severe drought, Albertans have to rely on the goodwill of IDs to ensure that we are supplied with adequate drinking water. The drought simulation workshop only highlighted this issue of prioritization among water users, as drinking water and ecosystem needs are superseded by irrigators who have held many of their licences since the inception of the *Water Act*. We need a more equitable process to reallocate water for the wellbeing of people and the environment to avoid situations where water is hoarded for the production of high-value crops such as potatoes and soybeans.

The workshop simulated three Watershed Planning and Advisory Councils (WPACs) for the Oldman, Bow, and Red Deer River sub-basins. The simulated WPACs were composed of members from the various sectors, and as the drought scenario progressed, we were asked to deliberate amongst ourselves to determine what actions might help mitigate water scarcity in our basin and determine next steps. As representatives of the ENGO community, we have no jurisdiction over water allocation and there are no regulatory levers available for us to use to demand the retention of water for in-stream needs during dry years. ENGOS do not hold water licences, so the only action we could take during this exercise was to constantly remind other stakeholders about aquatic ecosystem (i.e. in-stream flow) needs at every step in the simulation. Environmental interests are left hoping that others will listen and act accordingly on the information we provide.

Alberta has established Water Conservation Objectives (WCOs) in only a handful of our sub-basins, which are intended to serve as a guide for the protection of natural water bodies and their aquatic environments. These objectives provide flow targets for the volume and quality of the water needed

to remain in-stream to ensure the health of aquatic ecosystems. In the sub-basins where WCOs have been established, they provide a target quantity and/or quality for water conservation that we should be achieving, but evidence shows that we rarely do. A recent report on water law in Alberta published by the Environmental Law Centre has noted that we could license water allocation specifically for the purpose of meeting WCOs, but this would require the political will to do so, and could only function in basins that are not already over-allocated.

Participation in this workshop was valuable to gain a better understanding of how things might play out in reality under a multi-year drought scenario. Given the potential for more frequent droughts as a result of climate change, the Government of Alberta needs to reconsider how water rights are being managed in our province. What happens when our reservoirs dry up? How do we get more water back into our rivers to meet ecosystem needs if/when we are struggling to meet basic human survival needs for drinking water? The FITFIR principle cannot achieve equitable outcomes for all water users when the licensing system is inherently biased towards earlier licences. In times of water scarcity, such as those predicted due to climate change, we need a more adaptable system for water management, and proactivity will be essential. Our currently legislated system of licensed diversions is not adaptable in the face of changing environmental conditions. We should be managing our water to ensure supply, not allocation.

- By Phillip Meintzer

The Central Grasslands Roadmap Summit -- Planets Coming into Alignment for Grassland Conservation

Exciting things are happening in grassland conservation and the Central Grasslands Roadmap is helping to spread the word and coordinate actions.

The Central Grasslands Roadmap

is “a collaborative guide to increase conservation of North America’s Central Grasslands, which span 500 million acres across Indigenous Lands, Canada, the United States and Mexico.” The Roadmap brings together diverse voices involved in the grasslands and sets goals and principles for working together to protect the North American grasslands. This year’s summit provided an opportunity for sharing ideas and discussion on the priorities for grasslands conservation.

On May 24 and 25, the Central Grasslands Roadmap held its second summit and first in-person event at Colorado State University in Fort Collins. It built on the work from the first summit held virtually in the summer of 2020. Each summit brought together representatives from Mexico, Canada and the USA and across a range of different backgrounds and interests including (but not limited to) Indigenous Communities and/or First Nations, academia, non-governmental organizations (NGOs), government agencies (both federal and state/provincial), industry, and landowners. Discussions centred on the newest edition of the Central Grasslands Roadmap published in April 2022.

There were inspiring speeches by Ava Hamilton and Monica Rattling Hawk on the importance of working together to preserve the planet. Monica Rattling Hawk, a citizen of the Oglala Lakota Nation, spoke of recognizing that the Indigenous Peoples have lost significant land and their relationships to the earth. There were presentations from Indigenous Peoples, NGOs, Government, and academia describing conservation projects, strategies and implementation approaches for the North American Great Plains. Topics ranged from woody encroachment, soils, water, insects, loss of grasslands to the plough, endangered species, and mapping for conservation.

There were dedicated sessions for people living on, and drawing sustenance from, the land. Ranchers identified impediments to grassland conservation but provided their views

on pathways to success. Tribes and First Nations opened up about their history and the profound impacts of colonialism on their ways of life. They looked forward to different futures with initiatives like Innii and the Buffalo Treaty which are returning bison to the plains from Canada to Mexico.

A virtual summit was held simultaneously to allow participants unable to travel to participate in portions of the summit. Virtual summit participants were able to view the opening and closing events through a live broadcast, and participate in online discussion groups. There were opportunities to interact in person and virtually. Some chose to simply add their ideas to a shared online board, while others entered more heated debates. There were honest conversations covering a broad range of topics but there was a much needed and heavy emphasis on people living on the land, particularly Indigenous Peoples.

The summit helped to clarify and affirm the Central Grasslands Roadmap actions, and though the event was not able to solve all the issues around grasslands conservation, it succeeded in bringing the different parts of society together to openly discuss conflicts and share ideas on how best to proceed. Many questions remain, though some big ideas and priorities started to emerge including:

- The potential role of an existing organizational pathway for grassland conservation with the JV8 (eight of the Joint Ventures working on bird conservation and associated habitat protection from northern Mexico to southern Canada);
- Support for the efforts to reintroduce bison back into the plains, with an emphasis on the work of many Indigenous Peoples across the Great Plains;
- Excitement about the possibility of new tools and resourcing for grassland conservation at all scales through a *North American Grasslands Conservation Act* (NAGCA);
- Conceiving the Roadmap as a Collaborative of Collaboratives,

encompassing other groups (e.g. Transboundary Grassland Partnership, Great Plains Conservation Network, Prairie Conservation Forum, Prairie Conservation Action Plan, Rangelands Gateway, Intertribal Buffalo Council); and

- Expansion of efforts by funders from the current focus on the Northern Great Plains to also include the Southern Great Plains.

The role of Indigenous Peoples was acknowledged as important but a much deeper and different discussion is needed. There was disappointment from Indigenous Peoples that they were merely classified as another “sector.” It is important that a separate space and resourcing be made available to allow Indigenous Peoples to set their own path, define their priorities for grassland conservation and how they want to integrate/interact with the Central Grasslands Roadmap and other participants.

Despite some conflicting views and outstanding issues, the overall tone of the summit was positive and very energizing. The planets do seem to be coming into alignment for grasslands conservation across the Great Plains of North America.

For more information, see grasslandsroadmap.org.

- By Cliff Wallis and Ruiping Luo

Jasper Consults on Caribou Conservation Breeding Plan

In summer 2022 Parks Canada requested public comments on its proposal to capture, breed and release mountain caribou over 20 years in an effort to re-populate Jasper’s caribou ranges.

In the 1960s, southern Jasper National Park was home to hundreds of caribou. Today there are less than sixty, with too few females remaining to recover the herds on their own. The Maligne herd is recently extirpated, Tonquin has about 45 caribou including only nine females,

Brazeau has only three females and a handful of males.

With Jasper's elk and wolves now largely concentrated within valley bottoms, predation risks have been much reduced, though not eliminated, in the higher elevation caribou ranges. AWA remains concerned about infrastructure and recreation access pressures reducing prime habitat availability in these ranges.

While caribou populations spiralled down, Jasper has been 'considering' conservation breeding for years. In 2020, when Maligne caribou were declared extirpated, AWA urged Parks Canada to transparently review conservation breeding, and proceed if it was viable and accompanied by improved range management. In spring 2021, an external scientific review concluded conservation breeding was necessary for Jasper caribou to survive.

Parks Canada proposes to build a breeding facility of roughly 70 hectares. The focus is to minimize mortality at all stages and keep the animals as wild as possible, primarily in outdoor pens at relatively low density. Up to 40 females would be captured in several stages, including the last Brazeau females. Parks Canada has yet to confirm whether Alberta's A La Pêche herd might be one of the donor populations. Adult males would be rotated in for genetic diversity.

Once the program gets going in the mid-2020s, yearlings born in the facility would be released into the Tonquin range annually, possibly via temporary pens to aid acclimatization. The projection is for 200 or more caribou to be in Tonquin six years after the first captures, then another 6 to 10 years for similar numbers in Brazeau and Maligne. These timelines seem overly optimistic, but AWA strongly supports the intent to re-occupy all three ranges. AWA has reluctantly concluded that this program is a tragic but necessary interim measure to keep wild caribou in Jasper National Park, where they belong.

It was only in October 2021, at the urging of many conservation groups including AWA, that Parks Canada at last removed recreation access into the

Tonquin and Brazeau backcountry for the entire snow season. We welcomed that decision. AWA will remain outspoken about the need to further reduce recreation access impacts and improve habitat connectivity in Jasper caribou ranges, to buy survival time and support successful re-occupation of caribou ranges.

- By Carolyn Campbell

Reviewing Alberta's Absurd Mine Financial Security Program

Exactly one dollar. That's the increase in financial security held by the Alberta government for oil sands mine sites cleanup as of September 2021 (the latest figures), compared to what it held in December 2010.* Under Alberta's Mine Financial Security Program (MFSP), introduced in 2011, Alberta holds \$913 million for tar sands mine reclamation financial security. Since 2010, the buying power of that financial security has markedly dropped, by a third to a half depending if you check industrial product prices in September 2021 or June 2022.

Has Alberta's total active tar sands mine footprint similarly shrunk by a third to half, or even stayed the same? Not at all: it's grown seven-fold, from 140 km² in 2010 to 1,055 km² in 2020, the latest figures available. Only one km² of those mine sites is certified as reclaimed.

What about the costs required to reclaim the 1,055 km²? The Alberta Energy Regulator (AER) publishes an annual lump sum of what oil sands and coal companies estimate for what it would cost to pay a third party to reclaim their mines. That estimate was \$33.2 billion in September 2021, of which AWA estimates about \$32.6 billion for oil sands mines, \$600 million for coal mines.

These published MFSP cost estimates for third-party reclamation lack transparency and are likely far too low. There are no identified unit or total costs for challenging tailings and infrastructure remediation, for tricky

watershed and wetlands re-construction, for monitoring or contingencies.

MFSP regulations do not require any supporting document from operators, unless requested. Most revealing are 2018 internal AER documents obtained by National Observer journalists: these estimated it would cost \$130 billion to reclaim oil sands mine sites. That's four times higher than companies' 2021 reclamation liability estimates, and 140 times higher than financial security funds held by the Alberta government.

MFSP logic is that Alberta will collect the rest of the reclamation payments that are still owed across a period from the last 15 to last six years of mine life; meanwhile, it monitors companies' Asset-Liability ratios to manage risks. This is absurd. AWA believes investors in a sunset industry are unlikely to finance multi-billion-dollar 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 extensive clean-up responsibilities, otherwise they are likely to default on their obligations to avoid losses. Albertans face a high risk of stranded liabilities in both the oil sands and coal sectors if Alberta fails to shift to collecting full mine financial security for mine reclamation, as both Quebec and Yukon governments do.

This situation is avoidable. The MFSP is under active government review in 2022. AWA has urged Alberta to act while considerable profits are still ahead for these mines. Rather than tinker with a flawed Asset-Liability ratio approach that masks the looming risks of stranded assets, Alberta regulators must act to transition MFSP requirements in the next few years so reclamation liabilities are transparently costed, and government holds full financial security for mine reclamation liabilities as they are incurred.

*We thank University of Calgary's Drew Yewchuk for pointing this out in his October 2021 ABLawg post.

- By Carolyn Campbell

Departments

Wilderness Defender Award

Richard Thomas: A Many-Caused Rebel

By Vivian Pharis, AWA Board Member Emeritus



Richard Thomas - A man of many causes and principled to the point that he'd never let a career trump his values.

I knew Richard during his "Alberta Years" of environmental activism, from the 1980s to the early 2000s. I knew that he had left Alberta around 2005 to take on what seemed a tailor-made job for him professionally. What I did not know was that his leaving was primarily to escape stifling Alberta politics, or that he'd immersed himself for a year in a solo round-the-world shore-birding trip, ending in England. Or that he'd returned to Alberta in 2007, financially broke and seeking a job. That's when he learned he had a single day left to apply for what seemed like a perfect-fit job. He made the application deadline and aced the competition. Off he went to the end of the world, at the barren tip of the Avalon Peninsula in Newfoundland. The job was manager of Mistaken Point Ecological Reserve, one of the most important fossil sites on the planet, where he played a major role in getting it recognized as a World Heritage Site partly through his well-honed skills as a writer.

Of course, Richard was a prime candidate for recognition as an AWA Wilderness and Wildlife Defender because of his decades of advocacy work in Alberta alone. So, I was delighted to

approach him by phone and to hear he would accept, but how was I to interview him? I decided that maybe I would just drive over there – to his home in Portugal Cove South – and do it in person, but that's my story, not his. Anyway, after I spent hours hiking in a cold, howling gale across the tundra and over the 565-million-year-old Ediacaran fossils (the oldest known fossil multicellular organisms in the world) above Trepassey Bay, I then spent the evening of June 14 with Richard in his cozy fisherman's cottage. Richard was full of stories, and we thoroughly enjoyed dredging up the past and analyzing it through the lens of time. So many events, deadly serious at the time, had become either head-shakingly worse or could now be seen as hilarious in retrospect.

Richard had come to Calgary in 1981 to join the geology department at the University of Calgary, as a sedimentologist. This was his first career job, after completing a PhD at the University of Bristol and spending two years as a Post-Doctoral Fellow in Oklahoma. He'd grown up in Brecon, a small agricultural town in the south of Wales (now part of Brecon Beacons National Park) where he'd enjoyed an ideal childhood - fishing, roaming through nature and learning to love everything outdoors. He chose to study geology in order to spend his life outside doing field work. However, an undergraduate course in ecology further opened his eyes to the natural world and to the fact that all was not necessarily well. The "Club of Rome's" report and books like *Silent Spring* made him think more critically about his professional future. There would be no working for oil, gas, or mining companies for him!

His thesis was on ancient river deposits and fossil plant spores, spanning two volumes with over 600 pages. Parts were published years later as a 56-page professional paper. If nothing else, this thesis taught Richard how to write,

and how to write well, something that would serve him perhaps better than his knowledge of geology.

After getting "the boot" from the University of Calgary in 1987, Richard took up the life of an environmental activist, spending nearly two decades writing and speaking for most of Alberta's naturalist and conservation groups. But his talents were such that, despite being on various political blacklists, he was repeatedly hired by the Alberta government. He served as parks planner for the Lakeland district for several years, and between 1995 and 1998 he was employed as an environmental researcher/writer for Alberta's Special Places 2000 initiative. During this time, he wrote the first GIS-based disturbance layer analysis of the Foothills Natural Region: this initiated a whole new assessment of ecological integrity, or lack of it, in Alberta. The report opened people's eyes to how rapidly Alberta's wilderness was being converted by industry and creeping urbanization.

His 1998 report *The Final Frontier* discussing Alberta's boreal forest, generated huge controversy when the journalist Andrew Nikiforuk wrote an article based on it that made the front page of the *Globe & Mail*, and exposed Alberta for liquidating its dry mixed-wood forests at a faster rate than Brazil. Further black-listing resulted, but the findings also triggered many new requests for writing, speaking, and presenting to the public and media. Richard even presented on the state of the boreal forest to a federal Senate Committee.

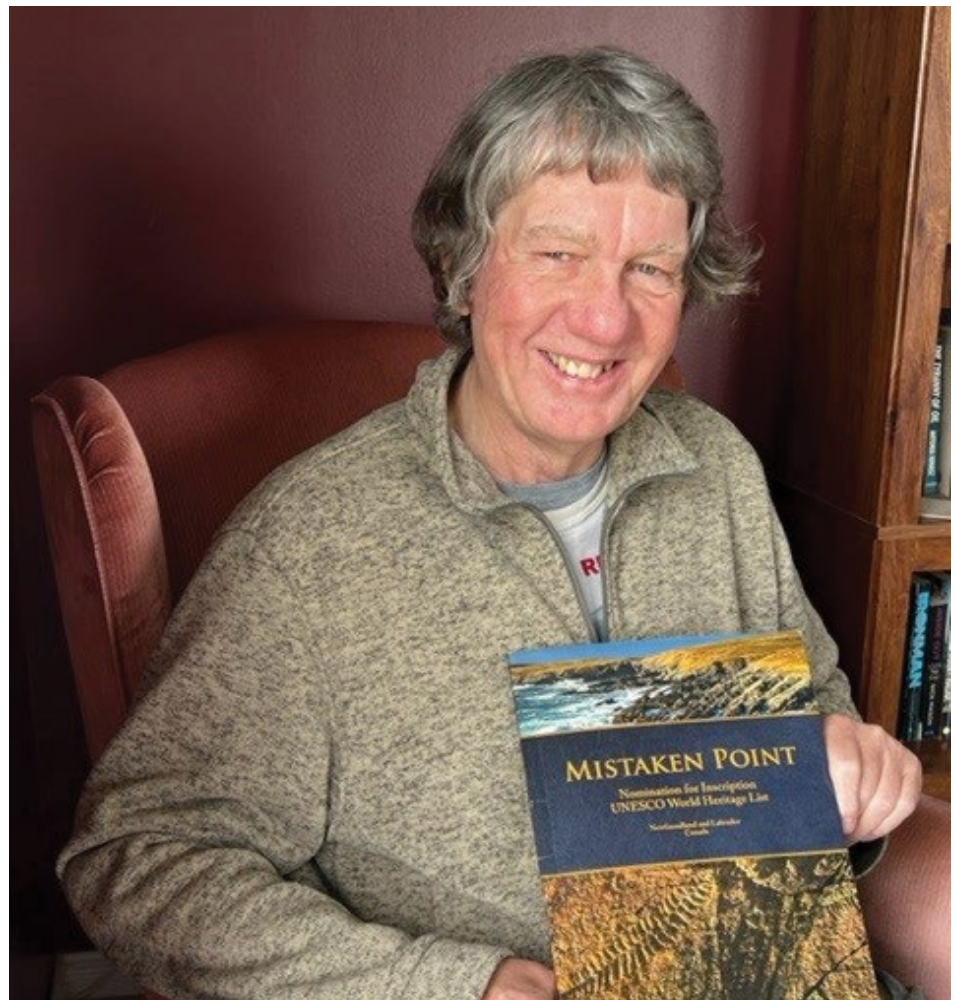
Always an avid birder, Richard was skilled at showing how boreal birds are key indicators of habitat health. His knowledge of birds led to jobs writing birding guides for various groups including government, and people sought him out to lead birding trips, including National Geographic and *The Nature of Things*. Richard could use the plight of birds to alert the public to a range of

ecological threats and issues. He could also be biting savage in bird defence as when he wrote “The Attack of the Killer Scapegoats” published in the Lac La Biche Post and the Edmonton Journal, after the local Tory MLA claimed that double-crested cormorants caused the demise of the Lac La Biche commercial walleye fishery and was demanding a law to cull fish-eating birds.

One of his primary achievements was *Making Connections: Alberta's Neotropical Migratory Birds*, a 24-page booklet explaining the plight and importance of hundreds of species of birds migrating between the tropics and the temperate zones of the Americas, with Canada's boreal playing a key role in breeding cycles. The self-published booklet, subsequently reprinted by the AWA, was written in the early 1990s and was used extensively to try and defend the boreal forest from massive clearcutting by large foreign-owned pulp mills which had been invited into the province starting in 1989.

It is Richard's claim that AWA, through the support of Cliff Wallis, initiated his life as an environmental rebel when Cliff approached him at the geology department to review geotechnical documents associated with a proposed dam on the Oldman River. The implications he saw affected him and caused him to want to speak out. Since then, Richard periodically researched and wrote for, led field trips for, and represented the AWA in many instances, particularly associated with the Boreal Natural Region - he even served for a year on the AWA board.

At an AWA board meeting in 1990, Richard astonished members by pulling a crumpled, used hanky from his pocket and plopping it on the boardroom table. He used this disgusting medium to illustrate an idea burning in his head. AWA was influenced enough to commission its first and only painting. Richard had already approached well known Calgary artist Joice Hall, and she was already planning her approach. He was “blown away” with her enthusiasm and the final large work entitled *Stop the Rip-off*. AWA used the image to produce hundreds of timely and effective posters,



Richard at his home in Portugal Cove, Newfoundland in June 2022. Photo © V. Pharis

and the original work now resides at the AWA. Joice Hall perfectly rendered Richard's idea of a feller-buncher ripping back the colourful, natural skin (hanky) from Alberta, to reveal a stark industrial landscape of clearcuts, farmed wildlife and overwhelming human appropriation. The image is as true today as then.

Undoubtedly, Richard's crowning achievement has been the work he's done in Newfoundland, against considerable odds, to raise the stature of Mistaken Point Ecological Reserve to World Heritage Site status. In 2008, Richard became Mistaken Point's first full-time employee and he worked to enhance protection of the site and set up interpretation programs and in 2010 he became the lead in seeking world heritage status. But in 2013, a 30% cut to Newfoundland and Labrador parks budgets threatened to kill this initiative. However, a coalition of stakeholders – the Mistaken Point Ambassadors – raised

enough funds to continue the project. Meanwhile, Richard was elevated to Reserve Geologist and rallied an army of scientists and citizens to successfully and triumphantly take the project forward.

Along with Queen's University's Dr. Guy Narbonne, Richard was able to assemble an extremely well-documented, illustrated and well-written 138-page book, that could not have failed to impress the UNESCO committee and win it over. In 2016, UNESCO's committee met in Turkey where political unrest cut the meeting short, but not before Mistaken Point was formally inscribed as a World Heritage Site.

But once again, bureaucracy was foreclosing on his principles, until finally at the end of 2017, early retirement offered him a way to escape. He continues to reside in Portugal Cove South, a barren spot, but a paradise for a devout birder like Richard.

2021 Martha Kostuch Annual Lecture and Wilderness and Wildlife Defender Awards: Wayne Howse

By Nigel Douglas

On December 14, AWA recognized (semi-) retired RCMP officer Wayne Howse with one of two 2021 Wilderness and Wildlife Defenders Awards, in recognition of his “steadfast dedication in protecting public lands and wildlife, while both on and off duty.”

As part of this award, AWA were delighted to invite Wayne to deliver the second of 2021’s annual lectures. Unfortunately, due to covid regulations, Wayne was unable to deliver his lecture in the traditional manner, and so once again his audience were obliged to listen in via Zoom. But participants were treated to some fascinating insights into Wayne’s 36 years as a full-time RCMP officer in Alberta, BC, and the Yukon.

Wayne grew up with his five younger brothers on a farm on the Buffalo Lake Metis Settlement, two hours north of Edmonton. He grew up hunting and fishing and, as he put it “being at one with wildlife.”

His Albertan roots go back a long way, as far as great, great, great grandfather Joseph Howse who came to Canada on a ship and eventually made his way to Rocky Mountain House, where he worked for the Hudson’s Bay Company. “He was a very good friend of David Thompson, even though Thompson was with the Northwest Trading Co.,” said Wayne. “Joseph Howse attempted to cross into BC through Howse Pass and was turned away by the Peigans who did not want that pass opened. So he had to go down through the Athabasca Pass.” In 1810 David Thompson named Howse Pass after his good friend.

“Joseph Howse ended up marrying a Cree lady,” continued Wayne. “They had several children and one was named Jane Howse.” Jane married Sam Livingston who was “quite a famous person in the Calgary area.” He built a

home along the Bow River and ended up selling it to the Northwest Mounted Police. “If you go into the Heritage Park, Sam Livingstone and Jane Howse’s house is still standing,” Wayne pointed out.

As well as Howse Pass, Joseph’s name is commemorated in Howse Peak, west of the Icefields Parkway, on the continental divide between Alberta and British Columbia. In 2015, Wayne’s son and his father-in-law climbed Howse Peak, the first Howse ever to stand atop of the 3,295-metre Howse Peak. “It’s quite a feat,” said Wayne proudly, “it’s very treacherous.”

As Wayne moved on to describe his time working with the RCMP out of Rocky Mountain House, it is easy to see from where his son got his love of the outdoors and his sense of adventure.

After school, Wayne initially planned to work as a conservation officer. But his head was turned by the RCMP’s program of “ride-alongs” for prospective teenage recruits and, “after riding round with them for six months or so I chose to join the RCMP.” Starting work in Regina, he worked in various places before eventually making his way back to Rocky Mountain House.

In Rocky, it didn’t take him long to notice the changes that had been wrought on his beloved backcountry by a combination of disposable income and lack of enforcement. “Being an Albertan who’s lived next to public lands, when I arrived in Rocky Mountain House I felt that it was brutal,” he said. “Back home I’d noticed that a lot of the berry patches that we used to pick as children, a lot of it was destroyed by off-highway vehicles. I noticed a lot of off-highway vehicle (OHV) damage to the creek beds; it was a free-for-all.” Rather than just bemoaning the deterioration of the places he loved, Wayne decided it was time to get involved. “From that point on I wanted to learn as much as I could about public lands. I decided I had to do my part in trying to preserve the backcountry.”

For Wayne, it began with education.

“I tried to educate a lot of the people by passing out pamphlets, saying the rules – stay out of our waterways, stay out of our fish streams.” And then, if the education didn’t work, it was time for enforcement: “If they didn’t listen, they would suffer the consequences in court.”

Though a lot of Wayne’s education work was carried out in his own time, he hoped that, eventually, for every owner of a registered vehicle, the government would send a booklet much like the hunting and fishing regulations. “I believed that was one way that would really help everybody understand what’s going on,” he said. Unfortunately, he is still waiting.

Wayne went on to give a few examples of his experiences enforcing regulations in the backcountry. “It can be quite hectic and quite crazy,” he said in his understated way.

One example was a persistent pattern of OHV abuse in Swan Creek, going back over a number of years. “I reviewed about a hundred videos of people driving in and out of Swan Creek, right on the east side of Swan Lake,” he recalled. “It’s a major spawning ground for seven or eight different species of fish.” As a result of viewing these videos Wayne was able to identify one prominent driver. “As a result of all the info we had we were able to obtain a search warrant and we went down to a location near Beiseker and seized the GoPros (vehicle cameras) and the computers, seized a \$10,000 quad.” The individual was charged with several counts under the *Water Act* and the *Public Lands Act*. “He didn’t really care about the land or what he had been doing,” said Wayne. “He wouldn’t cooperate or give a statement, which is his right, but we had overwhelming evidence.”

In the end, it went to court and the individual pleaded guilty. “He ended up losing his \$10,000 quad which was forfeited to the crown, and he also received a fine,” remembered Wayne. “I was able to follow up and find a second individual and he was also fined.”

Wayne also recalled another incident

with a somewhat more positive outcome. “I found an individual driving in a creek bed up by Lawrence Creek, northwest of Rocky,” Wayne told his audience. “I found him right in the creek washing his quad off, so I ended up charging him.” At first the person was not impressed: “he was quite argumentative, when I initially charged him and he did not realise the magnitude of what he was doing.” But as he came to appreciate the implications of his actions, he began to come around. “He came to me after all this was over and he apologised and said he was going to pass it on to all his friends and family to stay out of the creeks,” said Wayne. “I was very pleased with that outcome.”

Wayne was asked by lecture host, AWA Director Vivian Pharis, if he had noticed any recent improvements in the state of public lands in the backcountry. “There is some change but I don’t feel there is enough change yet,” he replied. “I’ve still encountered the rowdiness of a lot of the people in the backcountry, I’ve noticed a lot of the creek beds are still being driven into, it’s fairly obvious with all of the tracks going into and out of the water.” He agreed that the North Saskatchewan planning process “does not seem to be working.”

Of course, not all OHV users are taking part in the abuse. “I know there are OHV users who are upset with the ones who continue to abuse the land and they have reported them,” he continued. “However, you can report all you want, but if you don’t have enough enforcement officers in the backcountry the abuse will continue. A lot of the money the government spends could be spent wisely on having people protect public lands; I’d love to see more officers back there.”

On an encouraging note, Wayne did point out how well the different agencies now work to promote better practices on public lands. “In Rocky Mountain House, on a May long weekend, there are four or five agencies working together, fire fighters, search and rescue, the Rocky town police and peace officers too. For one week it’s

great, having all these people, but for the rest of the time we struggle.”

Though he retired in March 2018, Wayne re-hired with the RCMP as a reservist, and continues to work part-time, filling in as required. “It’s been a great opportunity to travel round Alberta,” he pointed out, “and work in a lot of special places, like Turner Valley, Jasper and Banff and Waterton,

even up into the Manning and Fairview areas. It’s been a lot of fun working in these locations and I’ve been able to see so much of the country.”

Despite some hair-raising experiences, Wayne retains a resolutely optimistic view of human nature: “I’ve noticed things don’t really change from one area to the other, but there are a lot of good people throughout the province.”



Wilderness and Wildlife Defender award recipient Wayne Howse.

Save the Date and Join Us!



Wilderness Association

Annual General Meeting of Alberta

**November 19th, 2022
10:00 am**

**AWA Cottage School Building
455 – 12 ST NW., Calgary, AB**

Video conference attendance will also be available.
Registration required and will be available online in November.

Adventures for Wilderness



Discovering Wild Alberta

The sun dipped behind the rim of the river valley and set fire to the clouds with hues of vibrant oranges and reds. Nighthawks swooped and boomed overhead on their evening hunt for insects. The air was heavy with the scent of sage as coyotes yipped and yowled in the distance. We were camped on a wide meander of the Milk River under a grandmother tree. This old cottonwood was gnarled and surely had many stories to tell of fierce prairie winds, baking hot sun, and the wildlife that took shelter under her canopy or raised a family in her wide boughs. It felt as though things were much the same here as they had been for generations.

AWA's Adventures for Wilderness program offers ways for people of every age and place to be inspired and to learn more about Alberta's wild places. The program helps people who care about wilderness and wildlife meet others and find safe ways to be active outdoors and enjoy our natural areas. AWA's Adventure



Kyle Eustace scans the banks of the Milk River for wildlife on the eight-day Milk River Canoe Adventure, which raised almost \$7,000 for the Alberta Wilderness Association. Photo © L. Wallis

Program also raises money. All funds raised through this program are used to support the conservation work of the AWA staff so in years to come places like the Milk River Natural Area will remain the same. Our adventure took us – myself, my partner Kyle, our six-year old daughter Karina and two other close friends – 100 kilometres down the Milk River by canoe. I am so grateful that I am able to share adventures like these with the people that I care about, and that I am able to contribute to supporting the conservation work done by AWA.

So far this year the Adventures have raised \$40,000!

Our Milk River canoe adventure was a trip focussed on experiencing the joy of sharing love for the natural world with others, and we were able to raise almost \$6500 for AWA with the help of family and friends. Throughout the summer, volunteer coordinators have introduced folks to seven of their favourite spots in the province, including the Whaleback, Wainwright Dunes, Milk River Ridge and places in Banff, Kananaskis and the Ghost Wilderness. Participants have been fortunate to hear stories and learn about the areas' history, botany, biology, and ecology from experts in their fields, including Kevin Van Tighem, Cliff Wallis, Cheryl Bradley, and Heinz Unger. We are so grateful to have many volunteers who are so generous with their time and knowledge! Barb Amos added another dimension to the appreciation of Wild Alberta as she led a group in a day of sketching and other artistic exercises. Keep checking our website for another offering this fall.

Tako Koning revealed the natural history in our own backyards when he collaborated with the folks at Bighill Creek Preservation Society (BCPS) for a driving tour of the area near Bighill Springs, currently under threat by the proposed development of a gravel pit. Participants

learned about the geological history of the area as well as what BCPS is doing to protect this special area from industrial development.

In Calgary, there were several adventures. For those who missed the Climb for Wilderness at the Calgary Tower and then the Bow Tower, Chris Saunders led an outdoor reboot of the Climb for Wilderness up and down the many staircases in Sunnyside. Tako Koning took folks on a fossil hunting expedition on the facades of limestone-clad buildings downtown. This spring Christyann Olson and friends went on their annual foray to Nose Hill in search of the first spring crocus in memory of long-time friend and dedicated volunteer Margaret Main.

This year we also had more kids' adventures than ever before! Every month a dozen kids got the chance to learn about a special inhabitant of wild Alberta – from native bees and orchids, to bison and grizzly bears. Each month they met over Zoom to learn and do a craft related to that month's theme. I also led a few lovely families on a day of learning outdoor skills such as shelter-building, fire-making, and map reading. Stay tuned, this one will also be offered again this fall!


We hope you will join us in making the Adventures for Wilderness program vibrant! Visit our website at adventuresforwilderness.ca to find an adventure that suits you. Or donate to an adventure in a place that matters to you. Or... create YOUR adventure! If you have an idea for an adventure (either a fundraising solo adventure or an educational group one) please contact us at the office (403-283-2025 or a4w@abwild.ca). We would love to hear from you.

Happy adventuring!

- By Lindsey Wallis

**A few of our upcoming *Adventures for Wilderness* -
Check out the website for more!**

www.AdventuresForWilderness.ca



**Sep. 19&20 - Bikepacking
the Upper Oldman**

**Sep. 17 - Ice, Glaciers, Gravel and Oil:
Cochrane North Field Trip**

Sep. 25 - Tryst Lake Fall Hike



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