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AWA



A WILD LANDS ADVOCATE

THE ALBERTA WILDERNESS ASSOCIATION JOURNAL



Alberta's Boreal Forest Natural Region PHOTO: © W. LYNCH

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COVER PHOTO

Wayne Lynch’s cover photograph of Alberta’s boreal forest is, as is his custom, stunning. More of Wayne’s images may be seen on his website www.waynelynch.ca

FEATURED ART

This issue of the *Advocate*, like the June 2009 issue, features public art in the form of the murals that adorn the stairway of the Calgary Tower courtesy of AWA’s annual Climb and Run for Wilderness. Throughout this edition of the *Advocate* you will see some of 2010’s additions to the collection of murals AWA has sponsored over the years. When it comes to appreciating public art please consider some of the words of the Newport News Public Art Foundation: “Public art helps define an entire community’s identity and reveal the unique character of a specific neighborhood. It is a unifying force.” May the murals in the Calgary Tower help to unify Albertans behind a conservationist agenda!

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IF RODNEY DANGERFIELD WAS REINCARNATED AS AN ECOSYSTEM...

I think the comedian would come back as the boreal forest. Anyone familiar with Dangerfield's career will remember him uttering the phrase: "I don't get no respect." This is exactly how we have treated the boreal ecosystem for decades now.

The storm clouds in Wayne Lynch's cover photo foreshadow that treatment. They are a metaphor for the industrial juggernaut that has pulverized the boreal over the last 50 years. They symbolize our thirst for oil and gas, our appetite for timber and our need to have tissue paper to dry our tears. The calm, tranquil wetland in his foreground reflects more than clouds and blue sky; it reflects a time when humankind's impact on the boreal was Lilliputian.

Much of the features section in the August *Advocate* may be read in this context. Our articles speak of values and needs the boreal offers us that we should take more seriously. They speak to examples of how we either have ignored those values and needs or not acted diligently enough to insure they will be respected. They also speak to ideas and practices we might pursue in order to increase the respect our civilization accords the boreal.

Articles by Chip Scialfa and Carolyn Campbell look at some of what the boreal offers us other than petroleum and timber. Chip introduces you to one of his passions, birding. He underlines just how important intact boreal stands are to the health of global bird populations as well as the significant economic contributions he and his birding colleagues make to the services sector. Carolyn's article on a blast that shook Total's Joslyn in situ operations reminds us of the importance of our ground water resources and the risks that this bitumen extraction approach may pose to them.

Two other articles by Carolyn, her report on the Syncrude trial over the deaths of 1,600 ducks on the Aurora mine tailings pond and her concerns regarding provincial wetlands policy development, may be read in the context of what values and needs some industrial operators have not taken seriously enough. To me, the deaths of those ducks in 2008 symbolizes the need for governments and industry alike to learn more about the impact of oil sands exploitation on wildlife populations and habitat and strengthen measures to protect them. Turning to wetlands Carolyn develops a strong argument that the province may jettison the 'no net loss' principle when a proposed wetlands policy is released for public discussion. This action, if the province ultimately takes it, would run counter what a majority of the Alberta Water Council's advisory members recommended; it would, however, bow to the objections of tar sands interests and threaten the ecological integrity of a key component of the boreal ecosystem.

More positively, perhaps, there may be some slivers of blue and sunlight breaking through the storm clouds over the boreal. A handful of major corporations apparently subscribe to the Canadian Boreal Initiative's goal of placing half of Canada's boreal forest in a network of protected areas. But,



Alberta Bound, A fleeting moment by Jessica Hauser, Debbie Miszaniec, Angela Hauser. The artists felt this mural is a reminder that these amazing birds are migratory waterfowl making use of our natural wetlands as habitats. Unfortunately Canada's wetlands continue to disappear.

PHOTO: K. MIHALCHEON

progress in Alberta towards contributing to that goal has been, at best, glacial. Mike Kennedy looks at one category of policies, market-based instruments, decision-makers may want to consider if they are concerned with improving environmental performance of corporations and restoring the boreal to an ecosystem that is truly welcoming to Alberta-bound waterfowl.

I hope there is much more you will appreciate in this issue. For example, Vivian Pharis introduces you to Tom Beck, one on this year's recipients of an AWA Wilderness and Wildlife Defender's Award (my pleasant duty in the October issue is to introduce you to the second recipient of that award this year – Peter Lee). The Association News section also invites you to share in celebrating Heather MacFadyen's remarkable achievement from earlier this year. Heather, of Canmore, received Earth Day Canada's national "Hometown Hero" environmental award. Finally, long-time members of AWA should be pleased to see that August's Recall of the Wild segment focuses on Herb Kariel, mountaineer, educator and former director of the Association.

- Ian Urquhart, Editor



GUILTY!: SYNCRUDE RUNS “AFOUL” OF CANADIAN AND ALBERTA ENVIRONMENTAL LAWS

By Carolyn Campbell, AWA Conservation Specialist

In late June Syncrude was found guilty of violating provincial and federal environmental laws. The ruling stemmed from an event in April 2008 when 1,600 migrating waterfowl died after landing on Syncrude’s Aurora mine lease tailings pond. The ducks mistook those toxic waters for a safe resting place. What are the implications of this case for wildlife in Alberta’s boreal forest natural region affected by tar sands developments? A tentative answer is offered here; a more definitive answer must await the sentencing decision expected this autumn.

Background of Events

Tailings ponds have been a fact of life of tar sands mining operations. Syncrude Canada Ltd. is no exception; its mines have used tailing ponds since the late 1970s as disposal sites for the toxic byproducts of its bitumen mining operations. Syncrude is a joint venture owned by the widely held Canadian Oil Sands Trust and six other major oil companies. In November 2006, Syncrude entered into a comprehensive 10-year management services agreement with Imperial Oil, Syncrude’s largest single corporate owner with a 25 percent share in the venture. To quote from Syncrude’s news release at that time: “Under the agreement, Imperial, with the support of ExxonMobil, will provide global best practices in several areas including: maintenance and reliability, energy management, procurement, safety, health, and environmental performance with the expectation of delivering further sustainable improvement in Syncrude’s operating performance.”

In April 2008, with adjacent non-toxic water bodies still frozen over, a heavy snowstorm prompted over one thousand migrating waterfowl to seek rest in the open water of Syncrude’s Aurora tailings pond. On April 28th, a senior wildlife biologist at Alberta Sustainable Resource



Syncrude’s more accessible Mildred Lake Tailings Pond. Tailings ponds attract migrating birds to their toxic open water, particularly if other water bodies are still frozen, as was the case in April 2008 for the 1,600 ducks that mistook the Aurora Mine tailings pond for safe haven. PHOTO: C. WEARMOUTH

Development received an anonymous tip about migrating ducks landing on that tailings pond. Extensive news coverage ensued about the death of 500 ducks, a figure subsequently revised many months later to 1,600 water fowl. In a bizarre and ironic twist to this wildfowl tragedy Syncrude flew several “now non-flying ducks” in a chartered aircraft to

Edmonton for rehabilitation efforts.

Governments failed to take legal action immediately. This prompted Jeh Custer of the Sierra Club Prairie chapter to launch a private prosecution in January 2009 against Syncrude. A month later, his prosecution was taken over when Canada and Alberta finally laid their own charges against the company. The first charge was

allowing hazardous substances to contact animals, a violation of section 155 of Alberta's *Environmental Protection and Enhancement Act* (EPEA). The second charge was depositing hazardous substances in an area frequented by migratory birds, a violation of section 5.1 of Canada's *Migratory Birds Convention Act* (MBCA). Syncrude entered a 'not guilty' plea in September 2009.

The Syncrude trial lasted two months. Judge Tjosvold found Syncrude guilty of both charges in June 2010. Judge Tjosvold will decide, likely this autumn, whether to enter a conviction for Syncrude on both or only one of the charges for the incident. Actual sentencing will likely occur in late autumn.

Basis for Guilty Verdict

The Court found the overall quality of Syncrude's bird deterrence program to be well below the industry standard. Prior to 2008, the company made substantial cutbacks in the number of scare cannon and effigies (ie. scarecrows – known popularly as bit-u-men) deterrents it used, and did not appear to be able to deploy cannons in nearly the density that its documentation suggested. Judge Tjosvold wrote: "While Syncrude had documents that set out procedures for bird deterrence... (i)t does not appear that these documents played any significant part in Syncrude's bird deterrent program."

Remarkably, no bird deterrence team members had any formal training in bird behaviour or deterrence. In 2007 and again in 2008 the bird deterrent team lost staff due to retirements; they were not replaced because of the belief that the team was doing a good job. Judge Tjosvold found that: "Syncrude employees... seemed convinced of the effectiveness of the bird deterrent program by the low number of recorded waterfowl incidents." This belief was unwarranted, however, because the judge reported "there was no evidence of a methodical or comprehensive system of monitoring to produce a thorough census."

The timing of Syncrude's 2008 deployment of bird deterrence equipment was, according to Judge Tjosvold, "clearly not informed by proper training or expertise." The 2008 target date for Syncrude's bird deterrent team to report

for work was April 14th. But, on that date the company still had not assembled a full complement of staff with the working equipment needed to deploy the deterrents. Judge Tjosvold found that no cannons had been deployed around the Aurora tailings pond by the time the late April snowstorm hit (there were cannons in place at Syncrude's Mildred Lake tailings pond). Also, deterrent set-up began at the Shell Albian Sands Muskeg River mine on March 24th; land cannons were placed on April 3rd and floats were set up and tested between April 14th and May 1st. Suncor initiated its cannon deployment program on April 8th.

While Syncrude may store tailings as part of its tar sands mining operations and permit it still must do so in accordance with section 155 of EPEA. This section requires the exercise of due diligence to prevent hazardous substances from contacting animals. Similarly, federal advice to tar sands operators required that operators continue to exercise due diligence to keep birds from landing on the tailings ponds. Judge Tjosvold noted that a viable defence for Syncrude could include establishing that industry standards were followed or that there were technological limitations beyond the control of the accused. However, he found it was foreseeable that migrating birds would be contaminated by landing on tailings ponds in late April and that Syncrude did not take all reasonable care to avoid the contamination.

Implications of the Case

The Syncrude case reinforces what scientists such as Dr. Kevin Timoney have asserted: we have no idea what the actual wildlife mortality is from direct contact with tailings ponds or mine lease sites generally, nor from the broader air and water pollutants emitted by these operations. The ad hoc self-reporting of dead animals by operator employees is practically useless for evaluating impacts. For Alberta actually to take the environmental impacts of oil sands seriously, a thorough, peer-reviewed assessment of cumulative impacts of oil sands development on wildlife populations and habitat is needed. Thresholds should be established for a maximum allowable oil sands footprint and to induce a focused effort to minimize operating impacts and to reclaim the landscape effectively before

further disturbances take place. We still seem far from this cumulative effects management approach.

On the positive side, kudos are due to the Sierra Club and to its counsel EcoJustice for first laying charges against Syncrude in a private prosecution. AWA's Carolyn Campbell asked Barry Robinson, EcoJustice's Calgary-based staff lawyer, for his opinions on this and other aspects of the Syncrude case.

Robinson believes the case demonstrated the usefulness of private prosecution as a tool for environmental organizations and private citizens. "I think the private prosecution did encourage the two governments to act in a more timely manner," he stated. "It might have taken them a couple of years to lay charges otherwise."

Maximum penalties under the federal MBCA are \$300,000 and under Alberta's EPEA are \$500,000. Robinson explained that "as far as I am aware, a guilty verdict has been found under this section of the *Migratory Birds Convention Act* in only one other instance in Canada, where 16 birds died from a BC oil spill, and the company paid a total of \$30,000 in fines including creative sentencing. In the Syncrude case, the penalties could be near the maximum for each law. Also, creative sentencing that has direct environmental outcomes, such as waterfowl habitat restoration, could be a fitting approach to sentencing."

This case did not find wildlife mortalities from tailings ponds unacceptable in themselves. Overall, the judge noted that tailings ponds are a part of tar sands mine operations until better technology is available and that due diligence in following standard industry practices for wildlife deterrents is acceptable. For Barry Robinson, "the charges were never about shutting down the industry. Syncrude tried to raise the spectre that all tailings ponds were on trial, which for me was a red herring. No system is perfect, but others had better systems and had them in place in time – Syncrude didn't. The heart of the issue is that the trial and its publicity has put mining companies on notice to take wildlife deterrence and other environmental regulations seriously, not as an afterthought."

Prosecution of the actions causing the 2008 tailings pond mortalities was crucial. It revealed and hopefully will



The Syncrude case testifies to the unreliability of information collected by tar sands operators about the wildlife mortality caused by their mining operations. Hopefully, the Syncrude verdict will improve dramatically the lax approach to wildlife deterrent systems applied to tailings ponds. PHOTO: C. WEARMOUTH

correct lax environmental attitudes and procedures prevalent in a long-time oil sands mining operator. Syncrude, and by extension its Imperial, Exxon-Mobil and other partners, did not live up to their rhetoric about providing global best practices on environmental issues. As such, this case reveals the critical importance of strong environmental laws and the political will to enforce them. 🐾

In Good Hands?

Beyond what is contained in the judge's ruling and media articles, a fascinating archive of Syncrude's approach to its bird deterrent program rests in May/October 2008 interviews of Syncrude employees involved in bird deterrence. Environment Canada and Alberta Environment staff conducted the interviews in the presence of Syncrude counsel. Syncrude wanted these statements inadmissible in court and also argued the statements should not be made public. The judge rejected both demands. Credit is due to the *Edmonton Journal* for petitioning for their public

release and for posting the interviews in their entirety on its website.

Three excerpts from an interview with Dave Matthews of Syncrude on May 20, 2008 by Dave Shannon and Martin Paetz, both of Alberta Environment follow. The interviews were conducted in the presence of Syncrude's counsel. Mr. Matthews had been Team leader of Syncrude's Bird and Ecology Team for eight years. His team was responsible for placing, operating and monitoring bird deterrents for the company.

The statements reveal a team that lacked a basic understanding of the toxicity to waterfowl of even a relatively mild exposure to the bitumen found throughout the tailings pond.

- (p. 24) Matthews: The [tailings pond] water, if there's no bitumen on it, is actually fairly clean.

Q: So you have an operational water fowl deterrents plan so the birds don't land on it because they will probably die if they do? Is that kind of in a nutshell what it is?

Matthews: No. No. It's there to prevent the birds from landing in the ponds and getting into, like, oil or bitumen. There's areas of – even the Aurora pond that they can – and we've seen it where they will land, swim around for a while and take flight just like any other water.

Q (p. 37): I needed to find out whether or not it was just ducks going into bitumen or whether they went into that water it wouldn't be good either, they would probably --

Matthews: It's probably, like I said earlier, it's probably not the healthiest, but I can tell you right now that I couldn't tell you how many ducks I've seen land on our tailings ponds in the cleaner water part of it, and they've been there puddling around for hours and hours and days, and they fly away just like they were out in the middle of the clean river.

Matthews (p. 38): ... I know going around it you see what you see, but the birds will land in that pond out in the middle and they will carry on.



THE BOREAL: A BIRDER'S WONDERLAND

By Chip Scialfa

“It's been a long, uncomfortable early June day but well worth it. After leaving Calgary at 11 last night, we arrived in Cold Lake just before dawn. Within minutes, the forest

exploded in song and we struggled for the next two hours to get good looks at the Blackburnian, Chestnut-sided and Cape May warblers singing from the spruce tops. Then, the muggy heat became

uncomfortable, but far more irritating was the mosquitoes and black flies. Even wearing a net and DEET didn't keep them at bay and by noon we were so sick of the infernal buzzing that we

gave up on the birds and retreated to an air-conditioned hotel room to get some much-needed (if not deserved) rest. Our count for the morning was a respectable 18 warblers. We missed Bay-breasted, but have another morning to find one before heading back home.”

If this painfully accurate description doesn't sound a bit odd to you, then you're probably a birder. There are many

reasons why birding is one of the fastest-growing interests in the world. It provides physical exercise and mental stimulation. It requires the development of patience, discipline and a profound respect for uncertainty (“What the heck WAS that little brown job?”). It can be enjoyed alone or in groups, need not be expensive and compels an appreciation for habitats – such as xeric short-grass prairies – that

would otherwise go unnoticed. For these and other reasons, it may not be surprising to learn in the U.S., 22 percent of the adult population lists birding as one of their activities. In 2001, the U.S. Fish and Wildlife Service reported that this interest generated (along with other wildlife watching), an economic impact estimated at \$32 billion! Not only is birding fun, it's big money!



Black-throated green warbler. This warbler is one of approximately two-dozen wood warblers that breed primarily in Alberta's boreal forest. PHOTO: B. ELDER

If you are a birder in Alberta (or most of Canada for that matter), then you know how frustrating, uncomfortable and utterly enjoyable it can be to spend time in the boreal forest in the hunt for breeding birds. Many of the most colourful and sought-after warblers breed predominantly in Canadian boreal forest areas such as Cold Lake and Sir Winston Churchill Provincial Parks. Additionally, several other remarkable species, such as the globally endangered whooping crane (*Grus Americana*) breed largely or entirely in this varied and rich mosaic of habitats. Over 80 percent of the world's Hudsonian godwits (*Limosa haemastica*) breed in the boreal region. Many of these species can be seen throughout the continent during the spring and fall migrations but, when you think North American breeding birds, think boreal forest.

Birds of the boreal occupy a variety of ecological niches. Some, such as the common loon (*Gavia immer*) require relatively large and undisturbed freshwater bodies. In contrast, the ovenbird (*Seiurus aurocapillus*) nests on the ground in areas of thick undergrowth, where it can find some protection against predators and parasitic species like the brown-headed cowbird (*Molothrus ater*). The Cape May warbler

Common Name	Latin Name	% of Population Breeding or % of Breeding Range in Canadian Boreal Forest *
Common loon	<i>Gavia immer</i>	74%
Red-necked grebe	<i>Podiceps grisegena</i>	93%
American wigeon	<i>Anas americana</i>	64%
Surfbird	<i>Aphriza virgata</i>	82%
Bonaparte's gull	<i>Larus Philadelphia</i>	95%
Great gray owl	<i>Strix nebulosa</i>	83%
Yellow-bellied flycatcher	<i>Empidonax flaviventris</i>	87%
Northern shrike	<i>Lanius excubitor</i>	90%
Philadelphia vireo	<i>Vireo philadelphicus</i>	86%
Palm warbler	<i>Dendroica palmarum</i>	98%
Magnolia warbler	<i>Dendroica magnolia</i>	74%
Cape May warbler	<i>Dendroica tigrina</i>	83%
Bay-breasted warbler	<i>Dendroica castanea</i>	79%

Source: Boreal Songbird Initiative. <http://www.borealbirds.org/>



Great gray owl. This handsome denizen of Canada's boreal forest, unlike many owls, may be seen hunting in the daytime.

PHOTO: B. ELDER

(Dendroica tigrina) is a dietary specialist and the population fluctuates dramatically with the availability of spruce budworms. Thus, a key to conservation of the boreal forest avifauna is to protect sufficiently large areas of representative habitats.

The environmental challenges to the boreal forest are considerable. While much of the region is sparsely populated, it is the source of commercial timber and pulp for paper, minerals and metals such as uranium and, increasingly, oil and natural gas. For example, in Alberta, one forestry company (Alberta-Pacific Forest Industries Inc. or ALPAC) manages and harvests an area of 6.87 million hectares. This is approximately nine percent of the province and the boreal forest comprises most of its Forest Management Agreement (FMA) area. Currently, leases for open pit mining operations in the oil sands area take up approximately 276,000 hectares. Most future mining

will be in situ and, if allowed to develop fully, would encompass 13.8 million hectares, or 21 percent of the province. Again, much of this land is boreal forest. This industrialization requires roads, machinery, culverts and people, all of which make it harder for birds to thrive.

Consider, for example, the forest fragmentation that results from oil sands exploration and extraction. In the OPTI-Nexen Long Lake project, the lease area is 106 km². By the time of completion, Schneider and Dyer contend there will be 234 exploration wells, 288 production wells and 89 kilometres of access roads, creating a linear disturbance every kilometre on average. Peter Lee

and Stan Boutin have noted that this impact does not consider fragmentation due to other structures or seismic lines, which are more closely spaced for in situ exploration and may remain cleared of vegetation even after 30 years.

Forest fragmentation impacts boreal bird life in several ways. Obviously, whatever replaces the forest is lost habitat, at least for the intermediate term. Some species appear to require a substantial area (e.g., > 10 ha) of undisturbed forest to breed successfully. Better practices can decrease fragmentation and mitigate its effects. According to Erin Bayne of the Alberta Biodiversity Monitoring Institute, positive effects have resulted from reduced cutline widths. As well, recently developed guidelines for well-site reclamation, by emphasizing forest regeneration above erosion control, are more likely to be successful. Still, Bayne

pointed out that if human activity such as ATV use is allowed along cut-lines, regeneration will be unlikely to occur. Greater efforts to manage human access are required to allow boreal forests to regenerate.

Of course, given that we're talking about a huge forest, it comes as no surprise that forestry poses another challenge to avian conservation. Roads to cut blocks have the same impact whether they are for a well or for timber. Clear-cutting leads to immediate loss of habitat for old-growth specialists, soil erosion in some cases, and may compromise riparian habitats adjoining harvested tracts. While harvesting and replanting practices have improved greatly over the past several decades, it is still the case that replanted areas contain fewer tree species, reduced plant diversity, and less dead woody material needed for shelter and nesting. As well, in many areas, undergrowth does not regenerate to pre-harvest levels and this impacts many songbird species such as blue-winged warblers and ovenbirds that are ground nesters.

Improved industrial practices and the short history of exploitation in Alberta's boreal forest mean that the recorded impact on bird life has been relatively small. A recent report by the Alberta Biodiversity Monitoring Institute (2009) found that songbird populations were relatively intact in logged areas relative to reference forest. On average, their intactness measures showed less than a 10 percent loss in harvested stands in the ALPAC Forest Management Agreement Area. However, some species have suffered disproportionately. For example, white-throated sparrows were diminished by 13 percent and mourning warbler numbers had dropped by 28 percent. As industrial activity "ramps up" in the coming decades, these numbers are sure to change and likely not for the better.

One might make the argument that too much of a focus on the boreal forest neglects the migratory nature of many breeding birds and that larger threats come from habitat loss along migratory routes, as well as in Central and South American overwintering grounds. To be sure, the ecological crisis in these regions demands immediate and significant action (the BP oil crisis in the Gulf of Mexico may pose a real threat to this year's shorebird populations). However,



Hudsonian godwit. This shorebird, which migrates through the northeastern tip of Alberta, breeds in only a few places in the boreal forest. It may arguably be considered a vulnerable species. PHOTO: B. ELDER

because breeding success is critical to long-term population stability, it is clear that protection of Canada's boreal forest must take a high priority. By acting now, we may be able to prevent the "Silent Spring" Rachel Carson warned us about more than 50 years ago.

What can we do to help protect Alberta's boreal forest? Accurate, current

information is always important. Some excellent web sites covering the topic include those of the boreal Songbird Initiative (www.borealbirds.org), the Cornell Laboratory of Ornithology (www.birds.cornell.edu) and, closer to home, the Alberta Biodiversity Monitoring Institute (www.abmi.ca). At the socio-economic level, if you find yourself

birding in Alberta's boreal, make sure that the restaurants, hotels and gas stations you patronize know that you are a birder. By wearing your binoculars and talking up the "great warbler day you had", you can send a clear message that birding means dollars. Advocating for protected areas, an idea promoted by Dr. Bayne and ALPAC, is critical. Whenever possible, you can echo the view of the Canadian Boreal Forest Initiative (www.borealcanada.ca) that protecting 50% of our northern forest is not only realistic, but wise. 🐦

Charles (Chip) Scialfa is a professor at the University of Calgary where he investigates age-related changes in vision and human performance. His birding has taken him to five continents where he has recorded a modest 1,500-species life list. Still, Alberta is home and he spends as much time as possible in the diverse habitats with which our province is blessed.



NEW POLICY TOOLS FOR CONSERVATION IN ALBERTA'S BOREAL NATURAL REGION

By Mike Kennedy

The province of Alberta has experienced unprecedented growth over the past 10 years fueled by rising energy and commodity prices and a pro-growth government strategy that has brought increased expansion in industrial development and urban sprawl. No region has experienced this trend as much Alberta's Boreal Natural Region.

To begin to address the challenges the province is facing, the government established the Land-Use Framework (LUF) in 2008 and in 2009 passed its supporting legislation – the *Alberta Land Stewardship Act* (ALSA). ALSA enables

a broader suite of policy instruments for conservation and environmental compliance purposes. As umbrella policy and legislation, the LUF sets the objectives and outcomes for the policy framework. These objectives and desired outcomes create an opportunity to use new policy approaches to enhance water regulation, air quality, wildlife habitat and overall biodiversity. As the Land Use Secretariat works to draft the first regional plan in the Lower Athabasca Regional Planning Area (LARP) we will begin to better understand how meaningful the opportunity is for new approaches related to enhancing the

ecosystem services the Boreal Region provides the global community.

Alberta's LUF outlines, as one of its seven strategies, a suite of policy instruments focused on ecological goods and services. As the rationale goes, by offering a suite of policy instruments policy-makers are better able to address specific environmental issues in a more cost and environmentally effective manner. While ALSA unfortunately gives the provincial cabinet tremendous discretion by leaving many of the details of these new instruments to be enacted by regulation, it has established the legislative basis for such a system (for

a discussion of the amount of discretion contained in ALSA see Cindy Chiasson's article in the October 2009 issue of the *Advocate*). The instruments outlined in the LUF are described in Table 1.

Prior to the development of the LUF, in 2006, Premier Ed Stelmach requested that the Minister of Agriculture lead the establishment of an arm's length organization called the Institute for Agriculture, Forestry and the Environment (IAFE). The government gave IAFE the mandate to: *identify market-based solutions to increase environmentally sound practices in the renewable resource sectors*. The IAFE used this mandate to develop a policy framework for the evaluation, selection and implementation of market-based instruments that may enhance provision of ecosystem services.

IAFE's appointed board reflected the government's broader pro-business focus since it was composed of representatives from the agriculture and forestry sectors. The board delivered on their mandate in March 2010 with the Ecosystem Service Market Policy Framework (the policy framework). Premier Stelmach claims that, while the outcomes of the IAFE are not yet public, cabinet is considering the IAFE policy framework. But we still do not know if the public will be granted access to these documents and, if so, what the timeline for access is.

As a consultant to IAFE I had first-hand experience in developing this policy framework. The policy framework outlines a process for the Government of Alberta to make better-informed choices about using market-based instruments (MBIs).

Market-based instruments are policy instruments that use price or other economic variables to provide incentives for polluters to reduce harmful emissions or pollution. They may contribute to the better overall use of natural resources.

The IAFE policy framework introduces a broader suite of MBIs than are currently used by the Alberta government and a broader suite of instruments than are currently being considered by ALSA legislation. Some of the policy instruments put forward

Table 1. New policy instruments introduced in Alberta's Land-Use Framework (LUF).

<i>Conservation easement</i>	A voluntary legal agreement to conserve a parcel of land, made between a private landowner and the Alberta government or a provincial government agency; a local government body; or a registered charity that meets certain criteria (e.g. a community-based organization such as a land trust).
<i>Conservation offsets</i>	Mechanisms that counterbalance the unavoidable loss and degradation of Alberta's terrestrial ecosystems that results from development activities on public or private lands.
<i>Transfer of development credits</i>	Allows municipalities to direct development away from areas valued for conservation towards areas better suited to increased urban development.
<i>Conservation directive</i>	A mandatory conservation tool that can be applied on public or private lands to support conservation objectives identified in regional plans.

by IAFE that extend beyond those considered in ALSA include: tax credits, user fees, payment schemes, performance based insurance premiums, labeling etc.

Table 2 below outlines the range of policy approaches and instruments that are available to the Government of Alberta for managing ecosystem services.

The policy framework provides definitions, background research on key issues and case study reviews to familiarize government officials with the advantages and disadvantages of various market-based instruments (MBIs), as well as to suggest how to begin to choose between a suite of market-based instrument options. It also suggests when the application of these MBIs would be appropriate.

As a starting point, the policy framework recommends that the province establish a science-based approach to assessing ecosystem services that "enables the establishment of metrics and currencies to facilitate identification and registration of ecosystem service units." It recommends that the ecosystem service assessment framework be integrated across provincial, regional and local scales and enable prioritization and the assigning of a value (or currency) to the particular ecosystem service attached to the area. While there is much more

work to be done, this type of framework could be developed from an existing data source such as the Alberta Biodiversity Monitoring Institute's intactness index.

It is important to note that this recommendation is similar to the stewardship units discussed in ALSA. What is important to note is that the currency of the ecosystem service units can be expressed in dollars or as a biophysical measure (hectares of riparian area), which would then be registered and traded in an ecosystem marketplace.

An example of one type of policy that might be implemented follows: An ecosystem service unit is a newly established area of riparian forest. By establishing a new area of riparian forest, an ecosystem service assessment process is applied to a land base to estimate the current and future contributions of ecosystem services like water regulation, wildlife habitat, carbon sequestration, water filtration, etc. Depending on the nature of the policies developed in Alberta, the person that owns the land providing the new area of riparian forest (e.g. a farmer north of Lac La Biche) may be eligible for payments directly from a user who is causing damage to the land-base (e.g. an oil sands mine) or from a central market place. Either way, the aim is to replace damages incurred to

Table 2. Policy approaches, types and instruments for incenting ecosystem services
(Source: IAFE Market Policy Framework, 2010).

Approach	Description of Policy Approach	Examples of Instrument
<i>Market-based</i>	Market creation (quantity-based) instruments establish a property right on a unit basis and that unit can be traded or purchased.	Tradable permits or credits Tradable disturbance rights Compliance or voluntary offsets
	Market shifting (price-based) instruments influence the market by incorporating the environmental benefit or cost of particular activities.	Environmental taxes User fees Payment schemes Tax credits
	Market shifting (market friction) instruments remove obstacles to ecosystem service market formation or growth.	Performance based insurance premiums Performance based or risk management-based interest rates Consumer information
<i>Command and control</i>	Quantity-based instruments are used to set aside designated land for particular uses.	Land use planning Protected areas/conservation directives Covenants
	Performance based instruments provide flexibility in meeting clear environmental objectives.	Management plans Compulsory best management practices Licensing
<i>Suasive (Supporting)</i>	Suasive instruments and voluntary approaches seek to change behaviour in support of achieving an objective by raising awareness and providing information. Suasive instruments are commonly used in combination with other approaches discussed above.	Awareness and Information programs Education programs



McClelland Lake Fen PHOTO: I. URQUHART

a similar riparian area located elsewhere (e.g. by the oil sands mine). To ensure that a cumulative benefit to ecological integrity occurs, the damage to ecosystem services being offset should be less (sometimes by an order of magnitude) than the current and future flow of

ecosystem services provided by the farmer north of Lac La Biche.

In reality, this type of interaction is already occurring in Alberta through voluntary offset development between Alberta Conservation Association and oil sands companies. However, the example above provides an example of how the Government of Alberta might move further ahead in better managing the cumulative effects on the landscape from industrial use. I should note though that the exact structure of the MBI will differ based on the ecological,

economic and social context in the region scale (i.e. province, land use region and/or watershed) being considered.

Moving towards quantifying the relationships between ecological function and human activities represents

a significant scientific challenge. Being able to express the value of these functions that exist in nature and then to be able to incorporate the value of these interactions into broader public and private land-use decision-making gets even more challenging. Other jurisdictions around the world are already moving in the direction of adopting a broader suite of policy instruments, including those that are market-based. Two examples that were discussed in the development of the IAFE policy recommendations include:

- Willamette River Basin- Ecosystem Credit Accounting Scheme (<http://willamettepartnership.org/ecosystem-credit-accounting>)
- Government of Victoria, Australia – Bush Broker Program (<http://www.dpi.vic.gov.au/DSE/nrence.nsf/LinkView/90D1EEF7733B9CD7CA256FA4001617CE4F65BBF1E5A3A721CA25720C00167A65>)

By taking an ecosystem service-focused, market-based approach, as opposed to a traditional natural resource management approach, the IAFE policy framework’s recommendations

offer a more integrated approach to environmental and economic policy than previously practiced in the province. By linking land and natural resource use actions with their resulting impacts on ecosystem services, decision-makers are provided with better information about how ecosystems are being affected and what it is likely to cost society to repair the damages.

This may be compared with current policy in the province that sets, in most cases, prescriptive regulation for companies to follow without sufficient monitoring and enforcement of compliance with a given regulation to ensure enforcement and compliance with legislation. The IAFE policy framework seeks to align the ambitions of the Land-Use Framework with the following Government of Alberta strategies: Water for Life, Clean Air, Climate Change, Energy, Parks Plans, Livestock and Meat and Forestry.

While further work is needed to make the aspirations of the IAFE policy framework a reality, there are a number of opportunities in Alberta's boreal forest for the Government of Alberta to test a market-based approach. One

example that is currently being advocated by environmental and industry groups includes a regulated boreal forest conservation offset scheme in the Lower Athabasca Region.

In October 2009 the Alberta Boreal Conservation Offsets Advisory Group (BCOG); composed of industry, First Nations and environmental groups, presented the Government of Alberta and IAFE with recommendations for establishing a Regulatory Boreal Conservation Offset system with banking. This policy approach expands on the existing voluntary conservation offset approaches by the Alberta Conservation Association and a number of oil sands operators (Shell, Suncor and Total).

The BCOG recommendation advocated a regulated approach to offsetting development projects in the boreal. The approach would provide a range of compliance options based on the size, timing and type of disturbance. The approach would prioritize and incentivize the restoration of boreal forest. For example, reclaiming the land would not generate an offset credit unless the land is restored to its native ecological function.

While MBIs should not be seen as replacing existing regulatory approaches or eliminating the need to establish large protected areas free of industrial activity across Alberta, these instruments may be effective at improving environmental outcomes. This is particularly true when price signals are strong enough to influence pro-environmental behaviour. What is clear is that the development of the policy framework is shaping discussions within the Government of Alberta, within environmental non-government organizations and within natural resource industries in Alberta. There is much more to be done to turn the tide of existing ecosystem service loss in the province. 🍷

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TAR SANDS LOBBY: 1 – WETLANDS POLICY: 0?

By Carolyn Campbell, AWA Conservation Specialist

It appears that the Alberta government is about to release an unacceptably weak provincial wetland policy for public comment. In reaction to tar sands industry demands to allow ongoing loss of boreal peatlands it seems that the 'no net loss' principle for the province has been sacrificed. Given recent policy developments, it is vital for AWA supporters to speak out in support of, at a minimum, a 'no net loss' approach when the proposed provincial policy finally is released.

Importance of Strong Wetland Policy

To date, two-thirds of wetlands in the settled areas ("White Area") of Alberta have been destroyed or impaired. A 'no net loss' policy was established for

settled areas in 1993 and a fairly strong regulatory application of the policy has been in place since 2007. Despite this, according to Alberta Environment, wetlands loss in settled areas continues at 0.3 to 0.5 percent per year.

Currently, there is no policy applying to wetlands in Alberta's unsettled areas ("Green Area"). These public lands comprise somewhat more than half the province and are found largely in the boreal forest region and parts of the foothills. Neither the historic total loss nor current rate of loss of wetlands in the Green Area is known. If an industrial project is approved under *Alberta's Environmental Protection and Enhancement Act (EPEA)* the developer has to return land to an "equivalent

land capability".

In practice, the EPEA provision means forested uplands usually replace wetlands for two reasons. First, forests have been perceived as the preferred vegetation cover because of their economic value to the forestry industry. Without regulatory incentives, our society still under-values the water storage and purification services and critical wildlife habitat provided by wetlands. Second, the vast majority of wetlands in the northern boreal consist of thick water-saturated layers of peat that form fens and bogs, rather than the mineral soil marshes and shallow open water typical of prairie wetlands. When fens and bogs are destroyed by tar sands strip mining or other intensive



Autumn-coloured mosses in a sensitive peatland area south of Touchwood Lake in Lakeland Provincial Recreation Area. There is no method of replicating the deep peat layers of virtually all northern wetlands once they are destroyed. That is why it is so vital that northern wetlands are respected and protected finally in a provincial wetland policy. PHOTO: C. CAMPBELL

industrial development, there are no proven techniques for recreating them. In the Athabasca oilsands region, wetlands cover around 50 percent of the natural region, and 90 percent of these wetlands are peat forming.

Although research into peatland restoration and creation is underway, scientists are still in the very early stages of understanding how a limited subset of peat plant species may be re-generated even in well-controlled conditions. And this vegetation is slow growing. We may be generations away from knowing how to re-create destroyed peatlands in mining-affected areas at close to their pre-disturbance ecological functionality. That is why it is so important to have a sound wetland conservation policy for Alberta's Green Area. Without that policy, supported by strict standards and regulations, project proponents have little incentive to minimize damage to these

peat wetlands.

Undermining 'No Net Loss'

In February 2010 AWA learned that the resource industry association Alberta Chamber of Resources (ACR) had published several articles on its website. These articles claimed the Chamber had succeeded in undermining the main points of the Alberta Water Council's recommended wetland policy. The Council's recommended policy was supported by a majority of the Council's members. The mining sector (represented by Alberta Chamber of Resources) and the oil and gas sector (represented by the Canadian Association of Petroleum Producers), both of who participated fully in the Council Team that drafted a compromise wetland policy, ultimately were the only two Council sectors not supporting the policy when it went forward from Council in September 2008. The majority recommended implementing a province-wide version of the 'no

net loss' principle to wetlands. While there could be net wetland losses due to development in one region those losses would have to be offset by comparable gains in other regions. Council recommended a flexible array of science-based compensation options be used when regulators determined that wetlands would be damaged by development activities. These options, in order of preference, were wetland restoration, wetland construction, and enhancement of existing wetlands. Moreover, securing existing wetlands and conducting research on wetland reestablishment could be considered as partial compensation as long as an equal area of wetland was replaced (generally, science-based recommendations call for a greater area to be replaced than is lost in order to try to ensure the same overall wetland benefits are maintained). The Water

Council did not recommend applying the policy to existing water approvals. But, when negotiating renewals for water licenses for projects that could run for decades, renewal conditions should be informed by the policy.

Three years of negotiations, and concessions, by members of an Alberta Environment-led multi-stakeholder forum produced these principles. Extensive public consultation at key points in the deliberations showed strong support for an even stronger wetlands policy than the Council ultimately recommended. Twenty-three of twenty-five Council sectors formally supported the compromise policy: this consensus included agriculture, forestry, petrochemical and power industries, non-governmental organizations, urban and rural municipalities and Government of Alberta representatives from five departments, including Alberta Energy.

As reported in the October 2008 *Wild Lands Advocate*, the oil sands and oil and gas sectors rejected the key pillars of Council recommendations for a no net loss policy in August 2008. Instead, they demanded: to delay a provincial policy until a regional land-use framework was in place; to allow regional and watershed loss without comparable gains elsewhere; to make the compensation framework applied to projects optional rather than mandatory; and to allow oil sands mining projects to replace boreal wetlands at less than a 1:1 ratio.

Since autumn 2008 AWA and other Alberta Environmental Network organizations have been calling on the provincial government to implement swiftly the policy recommended by a majority of the Water Council, citing overwhelming public support for even stronger wetland protection measures. Alberta Environment officials' pledged to implement a provincial policy first in spring 2009, then summer or autumn 2009, then early 2010. Though the White Area wetland policy remains in effect, Alberta still lacks an overall provincial wetland policy. Perhaps an even greater concern is that there have been several dismaying indications that a very weak provincial policy will eventually emerge.

The ACR claimed on its website that its lobbying for a weaker wetland policy worked. Don't bother looking for those documents now. After the ACR was interviewed about these documents



Several major North American migratory bird routes cross the Athabasca oil sands region and wetlands such as these provide vital resting and breeding habitat for migrants. The provincial government appears set to assign low value to boreal wetlands because they are abundant on the landscape. PHOTO: J. HILDEBRAND

in March 2010 the documents were pulled from the Chamber’s website. One document stated: “on January 30, 2009, Alberta Environment said that changes were being made to the Wetland Policy and Implementation Plan that would reflect the compensation flexibility, and integration into the Land Use Framework using a sustainable development approach that were requested by ACR and CAPP [Canadian Association of Petroleum Producers].” Furthermore, remarks by ACR’s Executive Director claimed: “The Province has agreed to three of the four changes to the proposed Wetlands Policy that ACR suggested in a letter of non-consensus we delivered to the Ministry of Environment in July and while the Wetlands Policy has not yet been implemented, these changes may save literally billions of dollars for our members in the future.”

When a journalist pressed Environment Minister Renner about the ACR claims the Minister hedged on his responsiveness to the ACR’s demands. In March 2010 he reportedly said: “It is a misrepresentation to say that Alberta Environment has agreed... At the end of the day, there needs to be a clear policy that says that there are consequences that have to be acknowledged and have to be dealt with when wetlands are destroyed.” He did not provide a date when this “clear policy” would be released. We are still waiting.

Leaked 2009 Draft Suggests Weak Policy

In April 2010, the Sierra Club Prairie Chapter publicly released an August 2009 government draft of the wetland policy. This Alberta Environment draft policy backed up the ACR’s claims that the majority recommendations of Water Council have been diluted extensively.

Rather than placate the oil sands industry by having much weaker compensation apply in the mineable oil sands region, the government’s draft policy does something much more profound. It overturns the Council majority-recommended principle that all wetlands are valuable and compensation for any damage should seek to maintain the area and associated benefits the wetlands provide. Instead, it builds a wetland policy around these principles: “Not all wetlands are of equal value. Individual wetlands will be assessed... and assigned an overall wetland value of very high, high, medium or low.” The values will be assigned through a “wetland value matrix.” The over-riding criterion in this matrix seems to be the abundance of wetlands in a region or watershed. Other criteria for the wetland value matrix are: biodiversity, water quality improvement, flood retention and human value (including historical, cultural, and recreational significance). “The level of compensation required,”

the draft states, “will reflect the differences in relative wetlands value... All [compensation] options reflect the understanding that some loss of wetlands will occur in the province.” If this draft is accepted the government will show the ‘no net loss’ principle the door.

The August 2009 draft policy supports a clear agenda to sanction ongoing loss of boreal region peatlands. There appears to be no scientific basis for asserting that peatlands in boreal ecosystems are less valuable than other wetlands. And, as noted above, these destroyed peatlands remain impossible to replicate. Tying value to ‘abundance’ also threatens wetlands in relatively intact prairie landscapes where they could be considered abundant. Furthermore, this approach conjures a nightmare of subjective, inconsistent valuations of wetlands within and across regions. Faced with fairly arbitrary value judgments, development project proponents from all industries, including sectors that favoured a much stronger ‘no net loss approach,’ understandably may try to seek the most favourable and lowest cost outcomes for themselves. Wetland conservation will be undermined further.

The draft policy also appears to offer up the vast majority of Alberta’s wetlands as candidates for potential disturbance. “Only the very highest value wetlands of greatest societal worth will be included in the conservation network [where industrial and residential development will not be permitted].” This would appear to disqualify any boreal region wetlands because of their relative abundance in the watershed. It is widely recognized though that, at least two boreal forest examples, the McClelland Lake wetland complex and the Peace-Athabasca Delta, deserve exceptional wetland status. Rather than bowing to the politically-driven premise that Alberta’s boreal ecosystem is expendable, science-based principles of aquatic environmental significance should determine the criteria for recognizing and protecting exceptional Alberta wetlands.

The most recent indications are that the essential philosophy of the 2009 draft government policy is still intact. On May 13, 2010, the “Alberta Prime Time” television program featured a segment on Alberta’s wetland policy. “Wetlands are highly diverse and one size fits all is

not necessarily the best approach” was one of the written comments submitted by Alberta Environment; no one from the department was available to appear on the discussion panel assembled for the program. Do we deserve more than that from the public officials who are, in law if not in fact, the stewards of Alberta’s natural heritage?

No Credible Cost Assessment

An extremely troubling aspect of this apparent policy erosion is that it appears very much driven by unsubstantiated petroleum industry claims that they cannot afford a ‘no net loss’ wetland policy. Yes, it should be expensive for mines to destroy peatlands that they can’t recreate. However, it defies belief that the pragmatic compensation options supported by almost all industry sectors on the Alberta Water Council, including forestry and agriculture, would have overwhelmed the highly profitable tar sands industry. Mines could have

replaced an equal area of wetlands, possibly well outside their lease area, and used securing wetlands and wetlands research as partial compensation. For in situ projects, a serious ‘no net loss’ wetland policy would motivate proponents to ‘avoid’ and ‘minimize’ wetland loss to a high degree based on site planning and operating best practices.

There has never been a public, transparent examination of what a ‘no net loss’ policy would cost the petroleum sector. In March 2009, both CAPP and ACR turned down a request by the *Edmonton Journal’s* Hanneke Brooymans to share their data that claimed to show how a 1:1 replacement ratio for 800 km² of wetlands lost at seven mine sites could cost industry \$170 million to \$560 million. To evaluate meaningfully the financial burden of a wetlands policy, not only do absolute cost calculations need to be scrutinized, they must also be placed in context relative to a 1.3 million barrels per day - and growing - tar sands

industry (at roughly \$US 80 per barrel in early August that would generate a gross value of tens of millions of dollars PER DAY.) Without public scrutiny of the relative financial burden of protecting and reclaiming wetlands to oil companies, polite Canadians should regard any claim of excessive costs skeptically.

For now, it is indisputable that one key demand of the tar sands sector – to delay implementing a provincial wetland policy – has been granted. Apparently, the provincial cabinet is still reviewing a proposed policy before authorizing its release for public consultation. When it is released (we assume it will be), and if our fears that the ‘no net loss’ principle will be jettisoned are realized, we will need your voices, more than ever, to try to ensure that the government does not let unproven corporate profitability claims undermine one foundation of Alberta’s ecological security. 🐻



IN SITU TAR SANDS RISKS CONFIRMED BY RECENT BLOWOUTS

By Carolyn Campbell, AWA Conservation Specialist

In February 2010, nearly four years after a well on Total’s Joslyn Creek in situ oilsands operations blew to the surface, spewing rocks up to 300 metres away, the Energy Resources Conservation Board (ERCB) issued its report on the incident. This event and other more recent incidents reinforce AWA’s conviction that risks to ground water and surface lands from in situ (underground drilling) projects are not being properly assessed and managed.

The explosion occurred on May 18, 2006 at Total’s Joslyn Creek operation, 60 kilometres north of Fort McMurray. This site used the standard Steam Assisted Gravity Drainage (SAGD) technique, in which wells are drilled into underground bitumen deposits, high temperature steam and pressure is applied to make the bitumen flow, and the bitumen is then pumped to surface. The

ERCB found that the root cause of the explosion was that Total exceeded both the maximum wellhead injection pressure under ERCB Directive 051 and the maximum bottomhole pressure approved in Total’s application.

The most likely geological course of events was that excessive steaming created a vertical fracture up to gas sand and water sand layers where steam and water pooled. The pooling built up pressure until the Clearwater layer, which was supposed to have acted as a capping layer, was breached. The sudden pressure drop vaporized the hot pooling water and caused an explosion.

The second most likely scenario for the Total explosion, according to the ERCB staff analysis, was that steaming caused a horizontal fracture into an undetected abandoned evaluation well only 20 metres away from the steam

injection well. Then steam rose up the well to gas sand and water sand layers where steam and water pooled. As in the first scenario, the capping layer was then breached and the hot pooling water suddenly vaporized and exploded.

This incident is very disturbing, first because of Total’s non-compliance with its approved steam injection strategy. ERCB staff noted that the approved project’s operating plan stated bottomhole pressure would not exceed 1,400 kiloPascals absolute (kPaa). However, staff also noted an inconsistency, in that there is a statement in one section of the Phase II Joslyn Creek application that 1,800 kPaa of pressure will not be exceeded. Even so, the 1,800 threshold was exceeded on numerous occasions.

Moreover, the application stated that bottomhole pressure readings



Google Earth image of Total's Joslyn Creek operations from an altitude of approximately 12 kilometres. The blast affected area - what the ERCB calls "a surface disturbance" - covered an area of about 125 metres by 75 metres (larger than a Canadian Football League field). A very disturbing aspect of the ERCB's analysis and review of this blast is that an abandoned evaluation well that was not cased and could not be detected from the surface may have provided a pathway for steam and hot water to travel and pool before exploding through the surface.

will be monitored and alarmed, and "automated steam shutdown controls will intervene if the operators do not reduce the bottomhole steam injection pressure." Automated shutdown clearly did not happen. ERCB staff concluded that Total "was in noncompliance with the approved operating strategy for ensuring that steam injection could not accidentally exceed fracture pressure." This analysis suggests there must be better clarity on the maximum allowable pressures in SAGD project approvals, and better auditing of SAGD project operators' monitoring and shutdown procedures.

The other significant cause for concern with this incident is the implications from the pathway explosion scenarios. If the 'most likely' scenario happened, the risks from potential site specific geological anomalies are not being sufficiently assessed by operators. The second most likely scenario – that the pressurized steam found a pathway up through a nearby abandoned evaluation

well – is also of great concern. The ERCB noted that, in the case of the Joslyn Creek SAGD operation, the abandoned evaluation well no longer had steel casing. This meant it could not be located from the surface and so its cement plug could not have been checked and possibly re-cemented by Total. Many abandoned production and evaluation wells throughout Alberta are poorly documented and poorly sealed. Even seals on current production wells may be faulty.

This is of special concern in northern Alberta, where very high pressures are being applied to extract underground bitumen deposits. Poorly documented and poorly sealed abandoned wells have created many access points through so-called capping layers that are meant to contain the pressurized steam and bitumen. While other SAGD operations for bitumen reserves are substantially deeper than the Total Joslyn Creek operations, making it less likely that a blowout could actually reach surface, it is

possible that pressurized bitumen could unintentionally flow up and out to lower-pressure groundwater formations.

The Wiau channel of the Empress formation, possibly Alberta's single largest freshwater aquifer, is 25 or more kilometres wide and tens of metres deep when it enters Alberta from Saskatchewan north of Cold Lake. It stretches north of Lac La Biche and flows in springs into the Athabasca River north of Wandering River (see the October 2008 *Wild Lands Advocate* for a more extensive description of this magnificent freshwater aquifer). Several SAGD operations are directly in the vicinity of this aquifer and of channels connecting with it. The Total Joslyn Creek explosion underscores the risks to Alberta's groundwater resources from SAGD operations.

The ERCB noted that, since the May 2006 Total blowout, it has initiated a re-write of ERCB Directive 051 to address requirements for completions, logging and testing requirements for in situ thermal operations. It is developing further requirements for investigating capping layer integrity and maximum operating pressures. And it is participating in a joint study with Alberta Geological Survey of caprock integrity. These are positive steps but more precautionary actions are needed now for



Beavers and Birds by Rosalie C. & Sravya K., Westmount Charter School. These elementary school aged children painted the Great Horned owl as a symbol of Alberta and included our rich forests, plenty of water for beavers and tall grass for rabbits to hide in.

PHOTO: K. MIHALCHEON

existing in situ operations.

In January 2009, a producing well on Canadian Natural Resources Limited's Primrose East in situ operation, north of Cold Lake, spilled up to the surface. The cause and the overall impacts are

not yet known. And in early July 2010, Devon's Jackfish in situ project, located eight kilometres outside Conklin, had a blowout at a wellhead where a mixture of 30 percent bitumen and 70 percent steam spewed for at least 36 hours before the

well was shut in. AWA will continue to monitor the causes, effects and regulatory responses to these incidents and work for stronger precautions and measures. 🐻



PROGRESS IN GHOST RIVER WATERSHED PLANNING

By Nigel Douglas, AWA Conservation Specialist

AWA and the Ghost Watershed Alliance Society (GWAS) continue to make progress developing an ecosystem-based conservation plan (EBCP) in the watershed of the Ghost River, west of Calgary.

In the December 2009 *Wild Lands Advocate*, we discussed a two-day workshop hosted by AWA and GWAS, looking at the role that local communities can play in future watershed planning and decision-making (*A Vision of Forest Management for the Future*). A newly published document, *Progress Report: Ghost River Watershed Ecosystem-based Conservation Plan*, details some of the steps taken in the past six months.

Progress report

The report, written by Herb Hammond of Silva Ecosystem Consultants Ltd., analyzes the current status of the Ghost River watershed and makes a number of findings. They include:

- More than 50 percent of the watershed is forested; nearly 30 percent is naturally non-vegetated. Meadows and shrubs are also an important component of the landscape: though they make up only 10 percent of the watershed they are “unique, biologically rich ecosystems” with a value beyond their simple size.

- Detailed information on old-growth forests was not available, though age of the forest is a potential surrogate. Nearly one-third of the Ghost River watershed contains “older lodgepole pine leading forests.” These are the most ecologically diverse forests and are likely to contain “many old-growth forest attributes that constitute composition and structure necessary to sustain many plant and

animal species.” They also may contain “a variety of other tree species, which increases their contribution to biological diversity and the overall ecological integrity of the Ghost River watershed.”

- According to Alberta Vegetation Index data, less than 2 percent of the watershed contains “good growing site productivity.”

A large proportion of the Ghost River watershed region falls within Spray Lakes Sawmills' Forest Management Agreement (FMA) area. Hammond's analysis of the 2007 *Detailed Forest Management Plan* for the FMA concludes:

- Planned logging will “remove the majority of white spruce forests of medium and good site quality.” These are “naturally rare or unique ecosystem types in the Ghost River watershed, and implementing these plans will significantly degrade the biological diversity and ecological integrity of the watershed.” (Removing spruce forest will also do nothing to deter the spread of pine beetles!).

- Past and planned logging is done exclusively through clearcutting, which “has the highest negative impacts on composition, structure, and function of forest, resulting in long-term loss of biodiversity and damaging the ecological integrity of the entire Ghost River watershed landscape ecology.”

- Financial accounting in forest management needs to go beyond the price of timber: “The cost of ecological restoration needs to be factored into the full cost accounting for planned logging to determine whether the planned logging is ecologically and/or economically viable.”



Alberta Grizzly by Allen and Julie Trites, Lindsay and Zach Hambly-Britton. The Grizzly bear was a natural choice for this family to paint, they wanted to create a mural that would remind people of the Grizzly and the beautiful Rocky Mountains!! We all must work to preserve the wilderness and all who call it home!! PHOTO: K. MIHALCHEON

Other issues in the watershed include:

- **Mountain pine beetles:** “Initial observations indicate that the mountain pine beetle is not a large issue in the Ghost River watershed.”
- **Off-highway vehicles:** “Current off-road vehicle use is degrading soil, water and ecological integrity at the patch and small landscape levels.”
- **Access roads:** “Minimizing road ‘footprint’ and road density are key factors to maintaining ecological integrity and conserving water.”
- **Cumulative impacts:** “When considered together, all of the land use



Healthy headwaters forests play a critical role in production of clean water. Waters from the Ghost watershed feed into the Bow River and so the only Calgaryans who are not impacted by forest management in the Ghost are those who do not drink water or use it in any other way! PHOTO: H. UNGER

activities described...result in cumulative impacts to the ecological composition, structure, and function – the ecological integrity – of the Ghost River watershed.”

The full *Progress Report: Ghost River Watershed Ecosystem-based Conservation Plan* can be read on AWA’s website at: www.AlbertaWilderness.ca

Future steps

So, with the publishing of the initial progress report, the foundation for an ecosystem-based conservation plan (EBCP) for the Ghost River watershed has been laid. This fall further field-based research will be carried out to improve our understanding of the

ecological patterns and processes within the watershed and to describe its ecological character and condition. Initial identification of ecosystem types will be carried out by analysis of stereoscopic aerial photograph information; follow-up field sampling will provide the fine detail.

The final EBCP will then draw all of the threads together. In Hammond’s words, it will “(describe) how to fit people into ecosystems in ways that protect land, water, plants, animals, soils, and all the other parts and processes of a fully-functioning ecosystem, while providing for diverse, community-based economies.”

Heinz Unger, AWA’s President

and President of the Ghost Watershed Alliance Society is encouraged by the level of local involvement in the 2009 workshops. “The highlight for me is how the community got engaged,” he says. A further workshop on the Ghost River watershed planning is being scheduled for the fall of 2010.

AWA is grateful for the support received from Calgary Foundation and the Royal Bank Blue Waters program in our work with the Ghost Watershed Alliance Society to strengthen grassroots involvement in watershed protection. 🍷



BUSINESS AS USUAL AS ERCB APPROVES KANANASKIS SOUR GAS PIPELINE

By Nigel Douglas, AWA Conservation Specialist

Imagine how you would feel if you were informed that a company was going to come and look around your house. They were planning to drill some sour gas wells nearby and, if your house wasn’t suitably airtight, then they would

have to come in to convert one of your rooms into a “safe” room, where you could retreat in the event (unlikely, of course) of a sour gas leak. Do you think you would be somewhat concerned? Angry maybe?

This is exactly the fate that Alberta’s Energy Resource Conservation Board (ERCB) decreed recently to residents of the Eden Valley Reserve west of Longview. ERCB Decision 2010-022 was released June 8, 2010. It gave the

go-ahead for Petro-Canada (now part of Suncor) to drill 11 new sour gas wells and build a 37-kilometre pipeline through the Eden Valley Reserve and across provincial land recently recognized by the Alberta government as *Nationally Significant*.

One of the fifteen “conditions” attached to the approval read: “The Board requires Petro-Canada to assess each residence of the Eden Valley Reserve for its suitability for sheltering in place and to identify and upgrade at least one room in each residence to make it suitable for sheltering in place.” Throughout the hearing, it appeared that residents of the Eden Valley Reserve were being treated differently from other Alberta residents. “The pipeline simply wouldn’t be going where it’s going if they were a municipality,” lawyer Doug Rae told the *Calgary Herald*. For the people of the Eden Valley reserve there is a clear irony in the fact we call them a “First” Nation.

During the 2008-09 hearing, Petro-Canada explained how they had dismissed alternative routes for the proposed pipeline, including one which would have headed east to the existing Mazeppa plant. “Petro-Canada determined that several residences could be within 100 m of the pipeline, thus violating the ERCB’s setback requirements,” stated ERCB’s decision report. And yet, according to Doug Rae, the Eden Valley Reserve has 99 residencies and 650 residents: shouldn’t they have received the same consideration?

Objections, Objections

The Eden Valley Reserve, along with the Big Loop Group (a coalition of local landowners), the Pekisko Group and Royal Adderson (a local landowner) have all appealed the ERCB’s decision.

AWA objected to Petro-Canada’s application and was denied standing at the original hearing; we continued to be involved as an “interested party.” AWA believes that the ERCB’s decision flies in the face of the principles espoused in the province’s much-trumpeted Land-Use Framework (LUF). The LUF recognized that there is a pressing need to change the way that multiple activities on the landscape are planned in Alberta. When a regional plan for the South Saskatchewan region is being prepared, it makes little sense to pre-empt any future

planning options. By concentrating on this one application and ignoring all of the other activities taking place on the same landscape, this decision flies in the face of the government’s new planning process.

In its decision report, ERCB agreed with many of the points made by opponents to the development such as:

Grizzly Bears

Alberta recognizes the project area as core habitat for grizzly bears, recently officially recognized as a threatened species. ERCB agreed that: “Given Petro-Canada’s analysis that indicated effects on mortality will be large in magnitude, long term, and regional in extent, it appears that there is potential for the Project to contribute significantly to grizzly bear mortality.” Should a project with that devastating potential be rejected? Not according to the ERCB. Instead, one of the fifteen “conditions” applied to the project approval reads: “The Board directs Petro-Canada to assist in any monitoring programs that may be initiated in the area by SRD to evaluate grizzly bear mortality and to assist in managing factors that contribute to grizzly bear mortality in the Project area.” Or, to put the first part of that message more bluntly, “if” SRD establishes a monitoring program Petro-Canada will be asked to help count any dead grizzlies which may result from the development!

What is crucial, and unspoken, in the second half of the statement is what assisting “in managing factors that contribute to grizzly bear mortality” could demand of the company. We hope it means the company would be asked to manage those factors so as to reduce grizzly bear mortality.

Cutthroat Trout

AWA argued at the hearing that the proposed development would significantly harm some of the province’s few remaining populations of genetically distinct westslope cutthroat trout. ERCB agreed: “The Board is particularly concerned with the potential of the Project to affect populations of westslope cutthroat trout and bull trout. The Board is also particularly concerned that the trunk line will intercept watercourses that support a significant proportion of the provincial population of westslope

cutthroat trout.”

“Particular concern” did not mean though that the ERCB would reject the project. The implications of the reference to risk in the following statement are important. The Board accepted the need for mitigation strategies recognizing that the Board “agree(d) with the interveners that Petro-Canada may have understated several of the risks associated with the Project and that it did so partially on the assumption that its proposed mitigations will be completely effective.”

Access Management

Somewhat optimistically, ERCB was satisfied that access to new well sites, and along the new 37-km pipeline could be adequately managed. “Successful mitigation of habitat fragmentation issues and risks to wildlife will require that access be limited along the trunk line and in the gathering system for motorized vehicle use as well as for foot and equestrian use.” The contention that Alberta has been notoriously ineffective in insuring that illegal access does not occur in the Eastern Slopes seems to have been ignored. “The Board believes that Petro-Canada’s proposed mitigation measures against unauthorized access are reasonable,” the decision report concluded.

Public Interest

Although ERCB purports to act in the “public interest,” fundamental predispositions towards developments such as Petro-Canada’s have been set before the application ever hits ERCB’s desk. In a June 30 interview with the *Cochrane Times*, ERCB’s Bob Curran hit the nail on the head. “Our role is not to make a decision on whether or not development should occur on the Eastern Slopes,” he said. “That determination has already been made by the government of Alberta — that it’s OK for development to occur there.” Although selected “affected parties” were allowed to participate in the three-month hearing, the determination to allow development in the area in the first place had already been made, arguably, behind closed doors and without significant public input. So it is very debatable how the ERCB can claim to be upholding an undefined notion of the “public interest.”

AWA believes that some projects, by their very nature, cannot be mitigated.



Looking across from the Bull Creek Hills towards the location of the 11 proposed sour gas wells. PHOTO: N. DOUGLAS

Some unspoiled areas like this part of Kananaskis Country are too important, and the damage inflicted by development too severe, to allow such a major development to take place. It is unlikely that any shovels will hit the ground before 2011: in the meantime AWA will continue to work with other opponents of the project to explore whatever avenues exist to halt this project before it is too late. 🍷

ANTS AND ANTELOPE

By Kevin Mihalcheon



Antelope south of the Cypress Hills PHOTO: K. MIHALCHEON

Born in Southern Alberta, I never much cared for the term bald prairie. Short grass prairie was my playground. I shared it with ants, cactus, rattlesnakes and some of the most remarkable biology in the world. Some may find this remarkable considering the climate has some similarities to Siberia. If you ever wonder how to respond to the opinion that any part of Alberta is just an empty expanse, here is an idea, by way of an anecdote, how you might

reply. Bereft of a decent library, materials and general interest, a friend and I did a high school biology project by staking out two apparently uninspiring pieces of prairie hillside – one higher, one lower. Each piece of hillside was about three metres square. The top piece was adorned with hardscrabble and cactus; the lower one received extra water from the top and some shelter from the relentless prairie wind with its occasional 100 kilometre per hour gusts. We began to

observe our plots in the spring. After several months of observation my friend collected an entire case of insect species and I photographed an astonishing progression of plant life. So stake out a piece of overlooked Alberta, literally or figuratively, and make it a project or just a state of mind. Do that and I bet you will have a ready answer the next time someone describes your spot as a big empty place. 🍷



TOM BECK – NEW AGE PIONEER

By Vivian Pharis, AWA Director

Tom Beck does not look or speak like a revolutionary but he is a true pioneer in the greening of the Canadian petroleum industry and in the evolution of councils and committees in Canada's Arctic. It would be easy to devote the entire space allotted an article describing this quiet, calm man who will receive one of AWA's 2010 Wilderness and Wildlife Defender's awards, to lists of his accomplishments, committees and task forces he has sat on, appointments and awards he has received and positions he has held in corporate and volunteer environmental work and in federal, provincial and territorial councils and committees.

His citation in the *Canadian Encyclopedia* (1988) tidily summarizes his career: "Beck pioneered environmental protection and management in the Canadian petroleum industry. Twenty years in the Alberta oil business led to his appointment as environmental co-ordinator for Elf Oil Exploration and Production Ltd and later Aquitane Co Ltd. From 1980 to 1982 he was director of Environmental and Social Affairs for Petro Canada. Dedicated to maintenance of natural environments and to sensitive development of natural resources, Beck has had wide influence. He was a founder of the Alberta Wilderness Assn, governor of the Arctic Inst, and Chairman of the Canadian Environmental Advisory Council in 1978-87."

In the early 1970s, Tom was one of the first in Canada to head the environmental efforts of a large oil and gas exploration company, Elf Oil Exploration, and is rightfully proud of close consultation and joint stewardship efforts with the Inuvialuit people of Banks Island in the Western Arctic and, in later years, with communities on Baffin Island, the Mackenzie Delta and Beaufort Sea. These efforts resulted in various conservation initiatives, for example limiting industrial activity to

winter, thus avoiding terrain damage and voluntary avoidance of all activity in a valuable snow-goose nesting area and no activity until after the Arctic fox completed denning each year on Banks Island. Tom suggested a candidate national park site to Parks Canada and, eventually, following the settlement of the Inuvialuit Land Claim, Aulavik National Park became a reality. The Inuvialuit also approved of two other parks in their settlement region.

Years later Tom was appointed to the Mackenzie Delta-Beaufort Sea Land Use Planning Commission. The resulting plan was based on close consultation and community-based planning, with land and wildlife protection as core values. This plan became a requirement for applications for land-use permits by industry, government and public, including Inuvialuit beneficiaries. Environmental screening of permit applications is conducted by the Environmental Impact Screening Committee for the Western Arctic (Inuvialuit) Claim Settlement Area. Tom was Chairman of this Committee from 1992 until he resigned in 2000. He chaired this committee at the request of the Inuvialuit, by federal Order in Council.

He takes pride in his volunteer work too as, for example, with the Nature Conservancy of Canada (NCC). Tom joined NCC on condition the organization would become more focused on the West and is proud of the fact that his first NCC initiative led to the establishment of the Cross Conservation Area (a 4,800 acre day use natural area southwest of Calgary). Thanks to the generosity of Sandy Cross, this was the largest donation of private land for conservation in the history of Canada. Now operated under the Sandy Cross Conservation Foundation, the area has an excellent record as a place for public viewing and environmental education for school children. Tom served as Foundation Vice

Chair for seven years.

In 1989 Tom was recognized for his long service to the greening of industry, to hearing and acting for aboriginals and to protecting the environment, by being presented with an Honorary Doctorate of Laws by the University of Calgary. This was no small achievement for this self-made man who was forced to leave school and take work in a steel mill at age 14.

So, where did this man of many achievements gain his expertise? There were no universities giving courses in environmental management in the 1950s and 1960s when Tom might have prepared for his career. Actually, it would not have mattered if there were because Tom then did not have the basic qualifications to enter university.

Tom left school at 14 to work in the same ancient, polluting mill where his father had previously died in an accident. Times were tough in Scotland in the post war 1940s and Tom's newly widowed mother made the courageous decision to emigrate. Her daughter, Chrissie, had moved to Cochrane Alberta as a war bride, to join her husband, the late Jimmy Mackay. This offered an obviously attractive destination for Tom and his family. For Tom, this new world of clean air and wide open spaces made it seem like he had died and gone to heaven.

Still a teenager, Tom took a job in the laboratory of Canada Cement at Exshaw and met the Canadian Rockies head on. He was awestruck by the beauty around him; he was soon fishing in foothills streams and developing a keen interest in hunting. Public lands and wild places were becoming personalized assets.

A couple of years later, Tom joined an American oil company and over a 20-year period gained wide experience. He also married Shirley, a local nurse, and they began a family that would include five children along with horses and hunting dogs. During these 20 years



Tom Beck PHOTO: M. STURK

Tom's passion for wild places, fly fishing, hunting, horseback riding and packing and the pleasure of roaming freely grew steadily stronger. He and Shirley built a lovely little log cabin in the Foothills where they, family and friends, still escape to enjoy adventures in nature. It was there that I interviewed him recently, hummingbirds flitting past the window as we talked.

Another passion was stirring too that was perhaps ignited back in the misery of a Scottish steel mill – a passion for human rights. In the early days of petroleum development in Alberta this passion manifested on behalf of landowner rights and made Tom uneasy about a government that would allow agricultural and public lands to be so freely disposed to this new industry. Alberta was just getting a taste of riches after a long time as a “have not” province and the lust for wealth began to drive the government's agenda. Landowners were taken aback by their treatment and the public began to raise alarms about abuse of wildlife habitat and public lands. Tom even encouraged the formation of an organization willing to make a collective stand for the rights of land and wildlife, although he admits that he and others in industry bore some penalty in those days, for supporting Alberta Wilderness Association and other conservation efforts.

A gut feeling that land and people's historic and traditional rights needed to

be treated with care and respect led Tom in several new directions. He left the company he had been with for 20 years, a company unwilling to embrace the rising tide of 1960s environmental protection. New petroleum companies were coming on the scene though that considered someone like Tom, with obvious environmental leanings, to be an asset. He joined one – the French company, Elf Oil Exploration – and Elf introduced Tom to the Arctic.

For 30 years Tom served the Inuvialuit, including as Commissioner of the Mackenzie Delta-Beaufort Sea Land Use Planning Commission and as Chair of the Environmental Impact Screening Committee for the Western Arctic (Inuvialuit) Claims Settlement Area. These claims were enacted under federal legislation and tied to the Canadian constitution, creating a security that continues to please Tom. For 50 years Tom has also calmly and quietly served the Canadian public through work on many national and regional committees and task forces and through volunteer services to numerous conservation efforts and groups.

My husband Dick and I have known Tom over much of his career and have had the pleasure of sharing a number of back country horse packing trips with him. An incident on one particular trip is a great illustration of Tom's capacity for tempered diplomacy – a trait that has served him so well in his long career of negotiation.

We had planned an early fall hunting and pleasure trip into Job Creek, a remote part of the Bighorn Wildland. Our route took us through the Blackstone Gap to the Brazeau River, then along it to Job Creek,

and on up to our camp. It was a 3-day pack in and we were on the last day but were still at least three hours from camp when the incident happened. We had slogged through muskegs and clambered over deadfall along the south side of the Brazeau River for most of the day before encountering a particularly nasty, log-filled bog. Here, the notorious trapper, Mad Bill, had built his home cabin – a slab hut with a grizzly's hide tacked to the outside. It was an eerie spot that I always liked putting behind me.

The horses plunged through the bog, all except two that decided instead to seek refuge with Mad Bill. Their milling around his cabin awakened Bill and he stumbled out, rifle in hand, inserting a bullet clip. The situation was suddenly tense. Tom and I were just opposite Bill, across the bog. Tom whispered to me that we should dismount and get behind our horses – let them take the shots. From behind our horses, Tom gently negotiated with Mad Bill until the rifle was laid aside and he even agreed to shoo the errant pack ponies across the bog. Tom's diplomacy saved the day yet again and we lived to tell this tale and many more about Tom. 🐾



Sure-Footed Chinook by Kathy Austin and Veronica Murphy. The goats on this mountain side are indeed sure-footed and remind us of the critical habitat our mountains and forests provide.

PHOTO: K. MIHALCHEON



HILLHURST SCHOOL CHILDREN WORK TO PROTECT ENDANGERED SPECIES

By Nigel Douglas, AWA Conservation Specialist

A quiet Wednesday morning in the AWA office was considerably brightened up by a visit from a group of Grade 4 students from Hillhurst School. They had been doing a school project on endangered species in Alberta and were bursting with enthusiasm to tell us what they had learned.

As part of their project, the children had been creating fact sheets on different Alberta species – including piping plovers, Ord’s kangaroo rats, bull trout and woodland caribou. It was immediately clear that a tremendous amount of research had gone into producing the fact sheets. Their work provided details about the status, life cycle and management of the species they researched.

As we chatted with the children about their excellent work, the depth of their knowledge about their chosen species was impressive. Most significantly, they were well aware of the one theme that, unfortunately, was common to all the wildlife they study, whether they are loggerhead shrikes, swift foxes or prairie rattlesnakes: it’s all about habitat. So

we learned that “habitat loss is the main cause of the Northern leopard frog’s decline” and “climate condition, loss of vegetation and loss of sagebrush habitat” is the reason for the plight of endangered greater sage-grouse.” Ferruginous hawks are listed as endangered because “humans are disturbing habitat.”

AWA is enormously grateful to Diane Crowley and all the Grade 4 kids at Hillhurst School. If they are any indication of the levels of knowledge and concern about Alberta’s wildlife amongst our youth, then endangered species in the province will indeed have a more hopeful future. What an inspiration they are to us all!



AWA’s Christyann Olson and Nigel Douglas join Diane Crowley and her Grade 4 students on the steps of AWA’s Calgary office. PHOTO: S. SWETTENHAM

DEFENDING WILD ALBERTA THROUGH AWARENESS AND AUCTION

By Nigel Douglas, AWA Conservation Specialist

Have you ever wondered what to do with your old car as it comes towards the end of its useful life?

I recently discovered a new way to dispose of my tired old car and help raise money for AWA at the same time. My old car, a 1997 Hyundai Accent, had been my faithful steed for seven years, but it was on its last legs. It needed a new clutch and a new steering rack, and, with 340,000 km on the clock, it just wasn’t going to be worth getting the work done.

Then I discovered an organization – Donate a Car Canada – which will collect

your old car, auction it off, and donate the proceeds to a charity of your choice: in return you receive a charitable receipt. AWA is one of a number of receiving charities for the organization.

The process could not have been easier:

- Go to the website - www.donatecar.ca and click on Donate a car online
- Fill in your details (including selecting AWA as your charity of choice, of course!)
- The organization will contact you to arrange collection of the vehicle (if it is no longer insured or registered, they

will send a truck to collect it, though the fee for this will be deducted from the ultimate value of the car)

- The car goes to auction
- A few weeks later, the charity (AWA!) will receive a cheque, and send you your charitable receipt

The program is not for scrap cars: your car must be driveable.

I hate getting rid of old cars that have served me well but is great to know that AWA benefited (to the tune of a whopping \$179!) from its final demise!



HEATHER MACFADYEN - NATIONAL HOMETOWN HERO AWARD WINNER

AWA is very pleased to offer its congratulations to those Canmore's Heather MacFadyen received earlier this year. Earth Day Canada recognized Heather as its national 2010 Hometown Heroes Individual Award winner. Heather has pursued her goal of a more environmentally-healthy Bow Valley, in

part, by participating on an extensive list of conservation boards and committees. Receiving this prestigious award was in no small measure due to the leading role she played in establishing scientifically wildlife corridors in the Canmore area. Last year she also organized a campaign to secure Alberta's agreement to allocate

57 acres of land previously leased to a developer to the Bow Valley Wildland Park and the Wind Valley Corridor. We hope that her example of dedication and commitment inspires other Albertans to follow in her footsteps.

UPDATES



The ecosystem services – such as production of clean water – provided by headwaters forests such as these in the Castle seriously challenge the dollar value of “vertical timber.” PHOTO: N. DOUGLAS

C5 Forest Management Plan Fails to See the Wood Beyond the Timber

The future management for southern Alberta's C5 Forest region has been laid out in a new government plan: unfortunately it mimics the past timber-extraction focus. The 352,200-hectare C5 Forest covers the area from southern Kananaskis Country to the northern

border of Waterton Lakes National Park.

A draft management plan for the C5 Forest was released in 2006. It was roundly criticized for its out-of-date focus on managing the entire forest with a blinkered focus on supplying timber. Even CROWPAC – the government's own advisory committee, set up to provide input into the plan – was

highly critical of the plan's reliance on outdated clearcut forestry techniques and its proposed 125 percent “surge cut.” In a March 2006 letter to the Alberta government, CROWPAC wrote: “Our committee believes current cut block maximums coupled with low retained structure have great potential to compromise the ecological and social values inherent in the plan.”

So there was cause for some optimism when, in March 2007, new Minister of Sustainable Resource Development, Ted Morton, suspended implementation of the plan “with an eye to shifting priorities to better consider environmental protection.” (*Calgary Herald*, March 13, 2007) With the ongoing development of the Land-Use Framework (LUF) process, it seemed that there was a growing recognition that past management of the southern eastern slopes – allowing all activities to take place on the same finite landscape – was not working. We needed to do a better job of deciding exactly what our priorities were for management of forests such as the C5 and consider that timber-production should not necessarily be the first priority. As the 2008 Land-Use Framework clearly stated: “Historically, watershed and recreation were deemed the priority uses of the Eastern Slopes. These priorities should be confirmed, and sooner rather than later.”

Unfortunately, the newly-released final C5 Forest Management Plan does not seem to have lived up to those grand words. Instead it looks very much like the same old old-fashioned approach, based on clearcut forestry: a forestry management plan rather than a forest management plan. While recognizing that forests supply us with a wide range of different things – including clean drinking water, recreation venues and wildlife habitat – any consideration of the many other different impacts on the same piece of land – oil and gas activity, grazing, motorized recreation activities – are deemed to be “beyond the scope” of this plan.

It seems curious that, whenever AWA calls for management changes in the region – for example, protection of the Castle region or stricter access management to implement the province’s *Grizzly Bear Recovery Plan* – we are informed that no major decisions can be made until the finalization of the LUF’s South Saskatchewan Regional Plan. And yet the C5 plan will guide management of 352,200 hectares of public land for the next twenty years. The principles of regional planning suddenly seem to have vanished; they constitute a “non-factor.”

AWA has been calling for a number of years for an end to industrial-scale forestry south of the Trans-Canada Highway. These forests have so many values and provide us with so many services that it makes no sense to subordinate those to values to the objective of supplying low-quality timber. Anybody who has watched streams of logging trucks on Highway 22, loaded up with skinny logs making the 600 km round trip from the Crowsnest Pass to the sawmill in Cochrane, can appreciate how out of balance this system is. We need more than just a new management plan; we need a new style of thinking in a ministry encumbered with staff seemingly unable to see the wood beyond the timber.

- Nigel Douglas

No More Bull?

Though many species require large areas of suitable habitat in order to survive in the long-term, it is also crucial to bear in mind the fine-scale habitat requirements that some species need within those broader areas. This is shown very clearly in a recent study of bull trout in the



The historic DU Ranch, just off the North Burmis Road, looks out over the Livingstone Range. The proposed magnetite mine would be directly within the viewscape of the ranch. PHOTO: D. McINTYRE

upper Oldman River watershed which found that an astonishing 70 percent of migratory bull trout spawn in just a four-kilometre reach of a single tributary of the Upper Oldman River.

In an article, *No More Bull? Learning to Respect Bull Trout in the Upper Oldman Watershed*, published in the Spring/ Summer 2010 edition of Alberta Conservation Association’s *Conservation Magazine*, ACA’s Trevor Council describes a multi-year study within the upper Oldman River watershed. “(T)his single tributary,” Council wrote, “is vital to the long-term perseverance of this species” He also noted concerns about “the volume of logging occurring in the watershed and plans for more.”

Bull trout are considered a species of special concern in Alberta. The Government of Alberta website states: “Protection from angling may result in recovery, but that may be countered by habitat degradation, and competition from introduced species.”

Obviously, the most important benefit from studies such as the bull trout study is using the findings to inform future management decisions (ACA is partly supported by funding from the Alberta Government’s Ministry for Sustainable Resource Development). ACA’s report suggests that the government

is considering modifying its logging operations upstream of the area, but there seems little evidence of this being reflected in the region’s newly-released C5 Forest Management Plan (see the story on page 24 of this issue). As a minimum, designation as a Class A water body under Alberta’s Water Act would offer a level of protection, meaning future activities would need to be approved by Alberta Environment, and the federal Department of Fisheries and Oceans.

Now that the importance of this one stretch of river has been made abundantly clear, one would hope that action to protect this section of the watershed will be swift.

- Nigel Douglas

Proposed Magnetite Mine Continues to Threaten Livingstone Range

A proposed open pit magnetite mine on the flanks of southern Alberta’s Livingstone Range just does not seem to want to go away. The targeted area extends northwards from Highway 3, along the eastern face of the Livingstone Range. The proposed mine is on a mix of public and private land; the land was recognized as *Nationally Significant* in the province’s 2009 revised *Environmentally Significant Areas* report.

Writing about the original mine

application process in the April 2004 *Wild Lands Advocate*, David McIntyre described “a long and quiet period sandwiched between chaotic and frantic moments of hyperactivity.” This has continued to be the case ever since. In 2004 the Alberta government received more than 100 letters opposing the original mine proposal, and eventually the application was dropped. But after a considerable lull, Micrex’s proposed mine resurfaced in 2008. As the new proposal required a smaller footprint and less water use than previous versions, Alberta Environment quickly waived any requirement for an Environmental Impact Assessment (EIA) of the project. A full EIA would have provided some opportunity for public input into the process, but this is no longer likely to happen. The local community, including groups such as the Livingstone Landowners Group, has spoken out strongly against the proposed development, and even the local municipalities of Pincher Creek and Ranchland have expressed their concerns.

AWA believes that approving a mine development in the Livingstone Range would pre-empt any future land-use decisions which may be made under the province’s Land-Use Framework (LUF) process. The LUF recognized: “We have

reached a tipping point, where sticking to the old rules will not produce the quality of life we have come to expect. If we want our children to enjoy the same quality of life that current generations have, we need a new land use system.” If the “old rules” are clearly not working, and the “new rules” are currently being developed by the South Saskatchewan Regional Advisory Council and others, AWA believes it is counter-intuitive and perhaps nonsensical to approve such a significant development before appropriate land-use guidelines for this area are in place. (AWA also notes that in the October 2007 Land Use Framework Workbook Summary Report, 74.3 percent of participants believed that “(at) present, the balance between developing and using our land versus conservation of our land is too focused on economic development and growth.”)

According to Sustainable Resource Development’s November 2009 document *Fescue Grassland Information Letter Principles for Minimizing Surface Disturbance*: “There is a growing understanding that we lack the tools and knowledge to restore foothills rough fescue grasslands after they are disturbed by land use activities like; road construction, oil and gas development, mineral exploration developments and

country residential developments.” Indeed, though the oil and gas industry has spent millions of dollars researching fescue grassland restoration over several years, we are still waiting for the first case of a successful reclamation.

The proposed mine would have serious impacts on a nursing area for bighorn sheep and a wintering area for elk. It would also be expected to impact grizzly bears (the area is recognized by the Alberta government as a *Grizzly Priority Area*) as well as limber pine, recently recommended for designation as an endangered species by the province’s Endangered Species Conservation Committee.

AWA believes that the economic benefits from development could never outweigh the considerable costs – to the natural beauty of the landscape with its accompanying tourism potential, to the clean surface and groundwater production properties of the land and to the significant wildlife habitat in the region.

AWA’s full letter of objection to the proposed magnetite mine can be seen on our website at www.albertawilderness.ca/issues/wildlands/livingstone-porcupine/archive

- Nigel Douglas

RECALL OF THE WILD

Herb Kariel - A Cautionary Mountaineering Tale

By Vivian Pharis

“Recall of the Wild” was designed to be a column based on stories from those who experienced Alberta’s wild country prior to too much taming. Herb Kariel’s story is one of these although there is no uncertainty that his primary interest in nature has always been sharply focused on mountains and, especially, on getting to the top of them. For some mountaineers and, interestingly, some keen birders, their focus and their obsession can be so narrow that they are oblivious to the overall complexity around them, to ecosystems, nature’s balances and

the need to protect whole habitats and landscapes in order to support their particular passion. They don’t think about connection and conservation. Not so with Herb Kariel. He is a keen mountaineer with an environmental conscience and a commitment to nature, influenced by his long history of activity with the Alpine Club of Canada and such conservation groups as the Sierra Club, North Cascades Conservation Council and the Alberta Wilderness Association.

From the first European contact with Alberta, the Rockies have acted as a magnet, drawing people here. Some come and go as tourists and adventurers

while others are so attracted they stay. Herb Kariel was one who was lured to the Rockies and brought his career and family along to stay.

Herb was born on the banks of the Elbe River in Germany but the Kariel family immigrated to the United States in 1938 and settled in Portland, Oregon. With mountains almost on his doorstep, young Herb took to the outdoors in his teens and was soon climbing in the Cascade Mountains and conquering such notable peaks as Mounts Hood, Adams, Baker, St. Helens, Rainier and the Three Sisters. Climbing was a prime pastime while he attended university in Eugene

and while he was teaching primary school in Oregon.

Marrying Pat helped to hone his interest in nature and conservation and the two joined the North Cascade Conservation Council and helped establish the Pacific Northwest chapter of the Sierra Club. While on teacher exchange to New Zealand Herb became acquainted with the Southern Alps and a whole new set of plants, animals, landscapes and climbing challenges.

A master's degree in education was the next step in his career path. He followed his master's with a doctorate in geography and a variety of jobs in Washington and California before, in 1967, the Canadian Rockies attracted him to a position with the University of Calgary. Herb taught geography at U of C for 29 years, all the time being an active member of the Alpine Club of Canada as well as taking part in conservation activities including with the Sierra Club of Canada and the AWA. Herb served on AWA's board for several terms and remains a board member, emeritus.

Herb now lives in the Edgemont Retirement Centre in Calgary where he is curtailed by a nerve and muscle disorder, which, he assures me, has nothing to do with his many years of mountain escapades. As he explains: "I climbed over 250 different mountains, mostly in Canada and the USA, but also in New Zealand, the European Alps, North Africa and Mexico. Some I climbed several times. In all these climbs I was never hurt, probably for two reasons: I was always cautious and I always made decisions based on consensus within my party, if I was its leader." He went on to explain that caution sometimes meant his party got "benighted" – had to spend a night sitting on a ledge – rather than risk a descent in the dark. "We were always prepared for this," Herb qualifies, "we took extra food and clothes; we would put our feet in our knapsacks to keep them warm and we would try to get a bit of sleep."

When I asked Herb what it is about climbing a mountain that so entices

people like him, he sighed and said: "It's several things really, not just one. It's the sheer pleasure of getting there, of using and mastering techniques, it's the views and the natural environment, the clean, cool air and the exhilaration. But, mostly, it's the friendships that are built when each person in a party cares about and relies upon every other person."

Herb and Pat wrote a book together called *Alpine Huts in the Rockies, Selkirks and Purcells*. It examines the history of each hut. The book was well



Herb, in 1988 on the top of Mt. Hungabee, a well known climbing peak between Banff and Yoho National Parks.

received by the climbing community of Herb's generation, but is no longer in print. When I asked why it had gone out-of-print, Herb suggested, with regret, that he thinks the younger generation either just has little interest in history or no time for it.

What Herb spoke about with greatest passion were times spent on hut repair and cleanup trips and especially at base climbing camps throughout the Rockies where young or new mountaineering

enthusiasts were trained. These camps were organized by the Alpine Club, usually four each summer, at places like the Freshfield Glacier in Banff, Mt. Robson, the Ramparts in Jasper, Roger's Pass and the Bugaboos. Base camps would be established outside park boundaries and the climbing instructors and students would hike in with their gear or their gear would be transported in by pack horse or helicopter. Herb was an enthusiastic amateur leader at these camps and, for this work and his work on a variety of Alpine Club committees over a span of more than 30 years, he received a number of awards including, in 1980, the Silver Rope for Mountaineering Leadership and a Distinguished Service Award in 1988. Incidentally, Herb is also a recipient of a Wilderness and Wildlife Defender's award from AWA for conservation activities.

One hut cleanup trip recollection illustrates the two principles Herb relied on to keep him from harm's way during his long career of adventuring in vertical terrain and participating in one of the most exacting sports in the world. Caution and consensus seem to have been his mantra, serving him long and well, including this time when he was acting as a volunteer guide. "We were climbing Mt. Kerr up in the Little Yoho Valley. I was guiding a lady named Bev Bendell who was taking part in a hut cleanup program that year. We were about half way up the mountain when we came to a particularly dangerous looking slope. I really felt uneasy about the way the snow was sitting and the angle of the slope. I turned to Bev and asked for her thoughts.

She deferred to me and to my experience. We turned around and I took a single step back when the whole slope behind us sheered away in an avalanche."

Herb told this story, then grinned and summed up his philosophy about mountaineering with a very apt quotation: "there are bold mountaineers and old mountaineers, but no old, bold mountaineers." 🍷

BACKCOUNTRY RECIPES

Black Bean Chili

If you don't like to rely on freeze-dried foods when out on overnight camping or hiking trips you might consider preparing the following vegetarian chili in advance, freezing it, and tossing it in your pack for at least one of your meals. This recipe is based on the black bean chili recipe found in Jane Brody's *Good Food Gourmet*.

Ingredients

2 tablespoons olive oil
1½ cups chopped onion
1 chopped and seeded jalapeño pepper
several crushed dried red chili peppers
2 teaspoons minced garlic
2 teaspoons cumin
1 teaspoon coriander
1 teaspoon chili powder

1 large can diced tomatoes (796 ml)
1 can black beans (540 ml), drained
1 can lentils (540 ml)

1. In a large pot heat the oil over medium-high heat, add the onion, the chopped jalapeño and the minced garlic. Sauté the ingredients for one minute.

2. Stir in the cumin, coriander, chili powder and the crushed red chili peppers and sauté for an additional minute.

3. Add the tomatoes with their juice, the lentils with their juice and the black beans. Bring the chili to a boil and then reduce the heat, cover the pot, and simmer the chili for 30 minutes.

4. Be sure to stir the chili occasionally to prevent it from sticking to the pot.

- Ian Urquhart

READER'S CORNER

Jeff Gailus, The Grizzly Manifesto: In Defence of the Great Bear, (Calgary: Rocky Mountain Books, 2010).

Reviewed by Ian Urquhart

The Grizzly Manifesto, at only 153 pages (and 4 ½ by 7 inch pages at that) is a short, small book. But, in this defence of the Great Bear, Gailus admirably confirms the proverb that “good things come in small packages.” Anyone interested in the current state and prospects of Alberta's iconic grizzly bear – just recently, and finally, designated a “threatened species” by the Government of Alberta – should read this book.

Gailus takes his readers on a nine-chapter journey that is at once personal, analytical and prescriptive. The first several chapters help us understand why the author decided to devote much of the last decade to trying to secure a healthy future for the grizzly bear. Key here were the experiences and insights he gained in 2001 courtesy of an invitation from Louisa Willcox, then the co-ordinator of the Sierra Club's grizzly bear ecosystems project. Willcox invited him to Yellowstone National Park to learn first-hand about the plight of the park's

grizzly bears. There, in addition to the concerns expressed by some American biologists about the population's security, Gailus was moved by the arguments of an Albertan, Dr. Brian Horesji. Horesji warned that, if Yellowstone's grizzlies were still in trouble and should remain on the U. S. Endangered Species list, the circumstances facing grizzlies north of the 49th parallel were much more dire. Heading home to Canmore from Yellowstone Gailus decided he had an obligation to try to brighten the Great Bear's future.

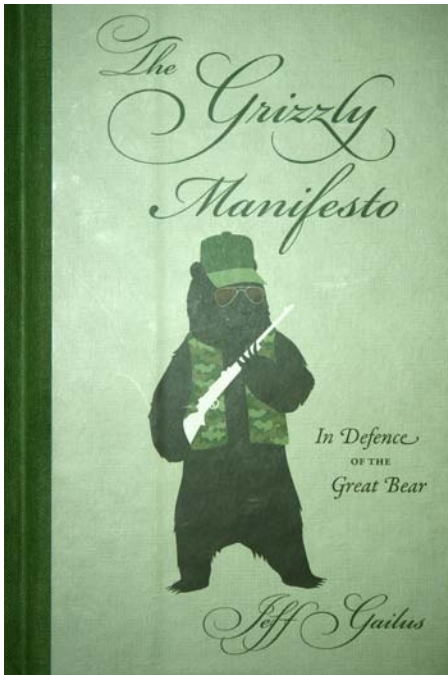
The middle section of the book is analytical in several ways. First, it discusses essential biological and ecological aspects of grizzlies. This is where you can learn, in very accessible language, why a grizzly sow's fertilized egg may or may not become a cub. It also is where you are introduced to a key theme of the book – the crucial role that human access on the landscape – be it via railways or, more importantly, roads – plays in grizzly ecology.

Second, the section also examines the species' history and, in that respect, its cultural significance among aboriginal peoples. The provocative idea that grizzlies may have introduced

First Nations to the idea of life after death is found there. The Great Bear's cultural significance, combined with its fascinating biological characteristics, leads Gailus to the conclusion that we should make more room today for this remarkable species.

Third, the section also examines why grizzlies in Alberta, even those in National Parks, are threatened. Gailus's answer is politics. The answer may be stated best in the chapter “The Death of 56” – “56” being Banff National Park's Bear no. 56. That female grizzly, like other bears over the years, fell victim to a train. Her death was the catalyst for the formation of the Bow Valley Grizzly Bear Alliance. The Alliance, opposed by the pro-business Association for Mountain Parks Protection and Enjoyment, crafted its own grizzly conservation strategy and pressed Parks Canada to honour its commitment to reduce grizzly bear deaths in the Park. The outcome? A 2004 conservation framework Gailus dismisses as “a wishy-washy rag cleverly constructed by policy wonks in Ottawa to say everything and nothing at all.”

Gailus sees further evidence that Parks Canada is sacrificing its commitment to protect the Great



Bear in the most recent draft Banff management plan. That draft actually proposed to weaken the target when it comes to reducing human-caused grizzly mortalities. The final plan, released in June of this year, embraced this weaker goal. Increasing the numbers of visitors to the Rocky Mountain Parks (Banff already hosts approximately 3 million visitors a year), a goal Gailus links to the interests of the business community, is the altar on which stronger protections for grizzlies is sacrificed.

Finally, Gailus's analysis looks to two features of American environmental politics – legislation and litigation – to explain why Yellowstone's grizzlies have fared much better than their

Alberta cousins since the mid-1970s. The Endangered Species Act (ESA) has provided a strong legislative mandate for the protection of endangered species; as Chris Servheen, the leader of the U. S. Fish and Wildlife Service's efforts to increase grizzly populations, told Gailus: "Without the ESA, we wouldn't have been able to recover grizzlies." When governments have been reluctant to interpret the ESA as offering that mandate Americans have used the courts to try to force the necessary change of heart.

The third and final section of the book is prescriptive. What steps must we take if we want healthy grizzly bear populations to be part of our future? The answer, for Gailus, rests not in more scientific studies of grizzlies but rather in more, or better, politics. The legislative and regulatory foundations of our political system must be "revolutionized" and recast more in the image of our American neighbours. The tremendous discretion that our political executives (cabinets) enjoy must be reined in; strong, non-discretionary, legislative mandates to protect species must be established.

The reasons for enthusiastically recommending *The Grizzly Manifesto* are many. I may have appreciated it most for its accessibility. Gailus writes about his passion in engaging, lively prose. Unlike some of what my profession requires me to read I did not need a "guide to jargon" to appreciate what Gailus had to say about any aspect of his subject. All writers who hope to interest the broader

public in their subjects – and Gailus is certainly a member of that community – should aspire to deliver such accessibility.

Substantively, Gailus's major contribution is to underline that politics, not science, holds the key to the future of the Great Bear. "Grizzly bears will now survive not in those places left wild," he writes, "but in those places where we actively decide that they should." When it comes to management it is crucial for government to do much more than strengthen educational programs such as "Alberta BearSmart;" motorized access to the backcountry must be restricted and those restrictions must be enforced effectively.

As important as I think this book is I have a couple of quibbles. The first is with the decision not to include any citations and/or footnotes in the text (there are, however, some further readings identified at the end of the book). I found myself, more than a few times, scribbling "source?" or "evidence?" in my copy's margins besides key quotes or claims. And, when it comes to quotes, I am always concerned when I see authors identify as direct quotes parts of conversations they would not seem to have been present for (Gailus's account of a conversation between Jim Pissot and Quentin Bochar is a case in point).

Those points aside Gailus has given us an insightful, lively examination of the Great Bear. May his observations benefit many readers as well as Alberta's beleaguered grizzly bears.

EVENTS

AWA SUMMER HIKES, TOURS AND BACKPACKS PROGRAM

AWA's hikes program is a great way to explore the lesser-known wilderness gems of Alberta and learn about AWA's work to protect the plants and animals of these magnificent landscapes.

For more information about all our summer hikes, please visit our website: www.AlbertaWilderness.ca. or call 1-866-313-0713.

Pre-Registration Is Required for All Trips

Online: www.albertawilderness.ca/events
 or By phone: (403) 283-2025
 Toll Free: 1-866-313-0713

DAY HIKES

\$20 – AWA members
 \$20 – AWA members
 \$25 – non-members

Tuesday September 14, 2010

Beehive Natural Area Hike

Contributing to the headwaters of the Oldman river in southwestern Alberta, this protected area is a stunning mix of cool, dark sub-alpine forests and broad, green alpine meadows.

With Nigel Douglas

Saturday October 2, 2010

Rumsey Ecological Reserve Hike

The Rumsey Ecological Reserve, a relatively undeveloped example of aspen

parkland located in central Alberta, retains most of the original parkland flora and fauna of the area.

With Paul Sutherland

MUSIC FOR THE WILD

This is the second in our 2010 series of evenings by local performers in support of AWA and Alberta's Wild Spaces.

Saturday September 25, 2010

AWA is proud to present great folk and roots music by BARRY LUFT.

Opening Act: Don Gowan and Jeanie Greenwell.

AWA Office, 455 – 12 St. NW, Calgary

7:30-10:30 pm (Doors open 7:00 pm)

Cost: \$15

Pre-registration is required.

www.AlbertaWilderness.ca/events



Spirit of the Prairie Chicken by Lori Kearney, Jeff Eisen, Candace Lennie, Nancy Williams. This mural is a the First Nations Chicken Dancer portrayed along with the contrasting, realistic, endangered Prairie Chicken. The mural displays a multi-cultural look that embraces the importance of tradition and species remaining valued for generations to come. PHOTO: K. MIHALCHEON



Golden Eagle, Freedom by David G. Atfield and Debbie Hutchinson
Throughout history the Eagle has been a symbol of power in many Nations (I have a First Nations and English background). This may explain part of my fascination with this wonderful creature. I have had the privilege to observe Golden Eagles at the nest and spent many seasons photographing them. I have watched their behaviour and their high intelligence, speed, power and strength. I have thousands of excellent photographs and they inspired me in my paintings. I would like to thank the Alberta Wilderness Association for the privilege of painting in the Calgary Tower; they made it a special day for my daughter and I. PHOTO: K. MIHALCHEON



Alberta Wilderness Association Annual General Meeting

Saturday, November 21, 2009

Time: 11:00 a.m.

Location: 455 – 12 St NW, Calgary

Registration: 1-866-313-0713 or
(403) 283-2025

MARTHA KOSTUCH ANNUAL WILDERNESS AND WILDLIFE LECTURE

Friday November 19, 2010

Each year AWA invites a distinguished wilderness defender to challenge AWA with new perspectives and strategies. Our guest lecturer this year is Peter Lee, Executive Director, Global Forest Watch Canada. The title of Peter's lecture is "Thucydides, Grant MacEwan, Cliff Wallis: Environmental Citizenship in a Hostile Jurisdiction."

Location 455 12 St NW Calgary
Wine and Cheese Reception: 6:00 p.m.

Lecture: 7:00 p.m.

Cost \$30.00

Reservations:

online at www.GoWildAlberta.ca

WILD WEST GALA 2010

Every fall, Alberta Wilderness Association pauses to take a deep breath and to reflect on the past year.



The 22nd annual Wild West Gala celebrates Alberta's Wild spaces and Wildlife. The Gala is a tradition of friends, colleagues, members and supporters enjoying fantastic food and an evening filled with entertainment, conversation, auctions and good ol' fashioned fun. We have held the ticket price at the same level (\$85 members, \$100 non-members) for many years to enable a wide audience to join in the celebration. Musically, this year we feature Tim Williams and the Electro-Fires. Tim Williams and his band are a treasure on the local Calgary blues and roots music scene and the Canadian blues scene. The Edmonton Journal describes Tim and his band as "one of the finest Canadian blues ensembles of the last three decades." Known for their amazing instrumental solos Tim and the Electro-Fires will set the stage for much dancing and even more bidding fun. This event is a fundraiser for the Alberta Wilderness Association and depends entirely on volunteers and sponsors from the Calgary area to present an evening to remember. Watch our website for updates and more information.



We invite you to join us this year for the

22ND ANNUAL WILD WEST GALA 2010
September 17, 2010

Please join us for a great night out!

Friday September 17, 2010 - 6 p.m.
Red and White Club (North end of McMahon Stadium) - Calgary
Tickets: www.GoWildAlberta.ca or by phone at 403 283-2025



Return Undeliverable Canadian Addresses to:



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awa@shaw.ca

