

# Wild Lands Advocate



The Alberta Wilderness Association Journal

June 2004 • Vol.12, No. 3

<http://AlbertaWilderness.ca>

[awa@shaw.ca](mailto:awa@shaw.ca)

## FROM BANKS ISLAND TO THE BACK YARD, PERSONAL EXPERIENCES COLOUR WILDERNESS VIEWS

Andy Marshall



Wilderness is a wonderful word, conveying a tangled underbrush of interpretations. Its roots in “wild,” provoke thoughts of unruly, disordered, uncontrolled.

For others, it conjures up escape from the aggravating artifices of the human-dominated world. For some, the wilderness visit and the sense of peace it inspires are more appropriate

substitutes for the churches and prayers of conventional religion.

However people see it, opinions flourish and grow freely as a healthy forest.

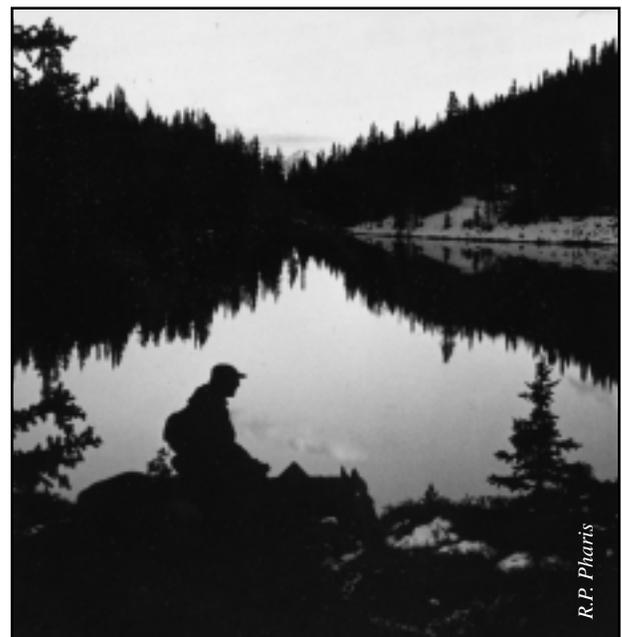
With June set aside as Wilderness Awareness Month and with conservation of natural habitat the core value of the Alberta Wilderness Association, eight people from across Alberta were interviewed for their views. While all eight lean strongly to the conservation side, they bring quite varying, subjective, even idiosyncratic perspectives.

Before reading them, we should remind ourselves of a more scientific, objective and stricter definition of wilderness. AWA’s position is: “Wilderness exists where large areas are characterized by the dominance of natural processes, the presence of the full complement of plant and animal communities characteristic of the region, and the absence of human constraints on nature.”

The United States *Wilderness Act* defines wilderness as land that “retains its primeval character.” It appears to have been “affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable.” It has outstanding opportunities for solitude or a “primitive and unconfined type of

### INSIDE

Making Happiness the Path to a Sustainable Future .....	6
By Heinz Unger	
Activist’s Odyssey Far From Finished: Martha Kostuch .....	7
<b>ALBERTA WILDERNESS WATCH</b> .....	9
Albertans Highly Value Wilderness Survey Shows .....	9
Our Health, Our Resources, Our Wilderness, Our Rights .....	10
Fate Of Abraham Glacier Wellness Resort .....	11
Public Grassland Trade Violates Three Laws .....	12
Water - A Scarce Natural Resource or a Free Good? .....	14
Cheviot Mine Brings Host Of Access Problems .....	16
Plains Bison Assessed As Threatened .....	19
Weyerhaeuser Postpones Logging In Caribou Habitat .....	20
Whitegoat Traverse by Don Wales .....	21
Corridors For Cougars by Cheryl Chetkiewicz .....	22
Spring Grizzly Hunt Over For This Year .....	23
Artist Profile: Marsha Hayward	
<b>ASSOCIATION NEWS</b> .....	25
Recreation Monitoring in Bighorn Wildland .....	25
Calgary Wild .....	25
Botanizing In The Jewel Of The Crown .....	26
Open House Hikes Program .....	27
Volunteer Opportunities .....	27
Landscapes of the Red Deer River: A Guided Bus Tour .....	28



recreation.” It has at least 5,000 acres and contains ecological, geological, or other features of scientific, educational, scenic or historical value.

The Alberta government has set out its own categories and definitions, including wilderness areas, ecological reserves, wildland parks, provincial parks, natural areas and recreation areas.

The discussions that follow raise other questions, too. Where do the oceans and outer space fit into wilderness concepts? Does hiking for three days and coming across a simple cabin undermine the concept?

People wonder whether riding a mountain bike into a remote region is a legitimate wilderness activity. Is wilderness in the eye of the beholder, as one interviewee suggests, or can there be wilderness where all human access is denied? Should wilderness be associated with discomfort or solitude?

Most of the visions embrace a summer view of wilderness. Would the same views prevail in winter when most living things are quite dormant?

The questions will remain. But the answers that follow suggest many people pack along their personal memories and familiarity with an area to their definitions.

### Alison Dinwoodie

Someone once told Alison Dinwoodie that wilderness was “anything beyond the drainage ditch of the road.”



*The biodiverse Cardinal Divide area bears many scars of human activity.*

A past president of the Stewards of Alberta Protection Association and a long-time AWA member, she has more specific ideas, collected, in part, from recent discussions over the Cheviot Mine and the Whitehorse Wildland Park buffer for wilderness in Jasper National Park.

The Edmonton citizen has spent many a joyful time in the Whitehorse park and up the Whitehorse Creek, but she voices a common complaint, echoed throughout Alberta.

“What contributes most to the feeling of wilderness is the lack of human noise and machinery,” she says.

“Seeing (Off Highway Vehicles) is offensive to people who

want to get away from it all.”

Considerations for wilderness, gleaned from others in her discussions, included the following points:

- Size. It has to be hundreds, if not thousands, of square kilometres. Some people feel the need to have walked for several days to feel “away from it all.”
- Sustainable predator-prey ecosystems. That means, for example, one grizzly bear requires 60 square kilometres. Connecting corridors are also important for migratory species.
- The need for large enough areas to sustain diverse and healthy ecosystems.
- In popular areas used by large numbers of hikers and horse riders, “managed” wilderness practices need to be applied. These may detract from the concept of true wilderness.

Born in Scotland, Dinwoodie emigrated to Canada 32 years ago with a degree in biochemistry. A member of the Alpine Club and a canoeist, she’s enjoyed outdoors activities for most of her life.

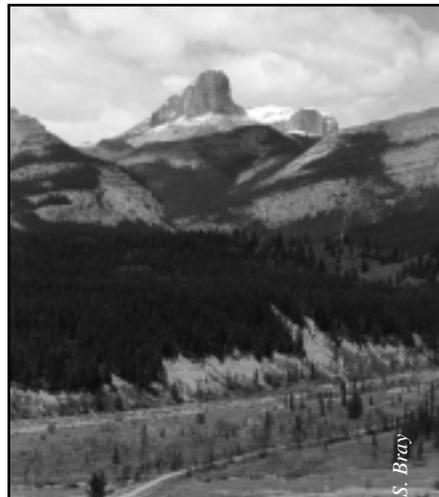
Wilderness experiences help us relate to our roots, she says. “People who are increasingly urbanized have lost this general awareness of how their actions can have an effect on other people, other things.”

She views with concern the rising popularity of extreme sports, such as mountain biking, in wilderness areas. “Participants look at wilderness egocentrically. They just ask ‘What can I do there?’”

### David Sweeney

The Cochrane area distance learning teacher connects important personal experiences with wilderness. “It’s a refuge, a place for healing . . . it’s a place for letting go and meditating,” he says.

“I’ve spent some of the happiest hours of my life in those places uninterrupted by people as much as possible, in as pristine a state as possible,” says Sweeney, 64.



*The Ghost River valley*



The arduousness and the length of the journey are also factors in appreciating wilderness. That, in turn, he adds, leads to a healthy awareness of “our smallness and the incredible power and size of so much in the universe.”

He takes time, for example, to observe in the mountains the geological processes that have occurred over hundreds of millions of years and to feel “awe, wonder and amazement.” A lyrical description for a man who has taught math for 40 years.

As a younger man, he went on a more than week-long trek in the Ugandan Mountains of the Moon. He completed the West Coast Trail twice—the second time just a few years ago—and retains strong images of the wild, ever-changing patterns of the ocean as other dramatic evidence of wilderness.

Born and raised in England, Sweeney still recalls the “dark, brooding beauty of Dartmoor.”

Yet, despite these sentiments, in the end he brings a pragmatic approach to his view of wilderness. Even a short walk from a well-trodden path where human activity is apparent can take him into a wooded glade by a stream that evokes as strong a sense of oneness with the earth as anywhere else.

For him and his wife, Marjorie, a favourite Alberta wilderness area has been along the North Ghost River, in the valley linking the Devil’s Head to Lake Minnewanka, west of Calgary. In fact, accompanied by a few friends, they were married there 24 years ago and have spent a lot of time there since. The fact that part of the valley has been reshaped and groomed by humans matters little to him.

“It misses the point to be too strict in the definitions of wilderness,” he says.

### Audrey Whitson

Author of a new book called *Teaching Places*, editor of children’s books, and a sessional teacher in theology and spirituality in Edmonton, Audrey Whitson believes all creation, wherever it is, has something to say to humans.

Whether it be a pristine, remote region or accessible and close by, it can help us relate to our sacred or spiritual source, Whitson, 46, says.



*This prairie slough survives in the midst of farmers’ fields and beside a road. It is a noted bird watching spot.*

She can find it in the Milk River canyon in southern Alberta or Lake Athabasca, two areas she says offer “powerful solitude.” But, she can also discover it in her own back garden in the middle of the city, or even in an industrial wasteland where grass has burst through the cracks in the concrete and where, deer, hare and coyote congregate.

While the purists may not agree, Whitson believes the wilderness experience can occur anywhere. “It’s a question of seeing and awareness.

“We have to reclaim the wilderness in our yards and our cities,” she says. “We can bring wilderness home.” People live next to the North Saskatchewan river valley in Edmonton, for example, and lament the lack of wildlife and nature. “They don’t know the diversity right next to them.”

Brought up on a farm, about an hour north of Edmonton, the former social worker describes her life’s mission as trying to connect the dualism that separates humans from their natural world.

“The Western mindset places wilderness ‘out there.’ But, in reality, it’s not that distinct,” she says.

### Val Allen

A leader with the Crowsnest Environmental Action Society in southwest Alberta, Val Allen associates a number of different activities with being in the wilderness. “I do meditation, I like berry-picking, wildlife viewing, photography and bird watching,” she says.



*On the way from Crowsnest Pass to Phillips Pass*

Born and raised in the Crowsnest Pass and living in Coleman the past decade after moving away, Allen, 50, spends as much time as she can in the region’s natural areas.

“Sharing it with wildlife, with animals—that triggers a connection with the earth,” she says. What matters most is the solitude, finding a place that is quiet.

But, with the failure of Alberta Sustainable Development to implement an access management plan for the region up to the Livingston and Porcupine Hills, it is difficult, says Allen, to find that quiet.



"I can hike for nine hours and get to places where there are all kinds of quads and dirt bikes," she says. "I go to a place where I think no-one's been, and I see bottles and garbage."

As a result, she's unsure whether distance from civilization is an important criterion for wilderness. A walk to a waterfall in the Miner's Pass near Coleman brings as much solace as anywhere—the trickling water drowns out intrusions from man-made noise.

Allen supports the setting aside of land, such as the 458-square-kilometre Suffield National Wildlife Area in southeastern Alberta, where not even hikers and wildlife watchers have access. "That's wonderful," she says. "It gives me peace of mind knowing it's there for wildlife."

She believes our growing population is clearly the main threat to wilderness, with the accompanying rise in industrial activity and unregulated use of Off Highway Vehicles (OHVs). Even excessive hiking and horseback riding can hurt a natural area.

As with many environmental activists, irony tinges her feelings about the wilderness. "With all the work I have to do to try and protect it, I don't have time to enjoy it," she laughs.

### Tom O'Keefe

Damage and noise from OHVs and industrial activities jaundice Tom O'Keefe's view of wilderness, too. Quads, motorbikes, seismic work, oil drilling, logging and cattle grazing in what were once favourite areas for hiking, fishing or hunting west of Sundre or beyond Ram Falls, northwest of Calgary, have destroyed the sense of wilderness, says the 77-year-old Calgarian. The same goes for the southern part of the province.

"What's the point of going there?" comes the rhetorical question. "There's more peace and quiet in my own back yard."



Hunting rattlesnakes near Bindloss.

From his experiences in Alberta, O'Keefe worries his 11-year-old grandson will have little opportunity to know what real wilderness is like. It was the proliferation of traffic and roads that prompted him to give up hunting in the mountains years ago.

Instead, O'Keefe, his son and grandson enjoy a beloved destination on the A7 and Bar S ranches, west of Nanton, close to Chain Lakes. It may not qualify as wilderness, but its rolling

hills, covered partially by willow and poplar, keep drawing him back. "You get accustomed to a certain type of terrain . . . I've hunted there for close to 40 years," he says.

One of the original AWA members, he's a past president of the Alberta Fish and Game Association. He enjoyed a 35-year career, contracting with accounting firms in bankruptcy cases, doing inventory and arranging for the disposal of assets.

By the time this article appears, he, his son and grandchildren will have made a trip to an area near Empress by the Saskatchewan border to look for rattlesnakes. They've done it the past five years and see at least 50 per visit.

"Out there, you experience more wilderness than in the mountains," he says.

### Tom Beck

To discuss wilderness with one of Canada's leaders in protecting wild and pristine lands is to take a walk through history.

"I very much subscribe to the fact that beauty is in the eye of the beholder," says the 72-year-old Calgarian. In other words, wilderness has no value to man without the human observer. "I wonder today what the early beholders of beauty in this part of the world (such as Anthony Henday, one of the first white settlers in Alberta 250 years ago) would think of it now," he adds.



Tom Beck

Recalling a speech he made 21 years ago to a symposium on resource management in the Eastern Slopes, he says it likely didn't occur to Henday there would be so much concern for protection of these foothills he saw in their pristine splendour.

Henday obviously did not foresee the changes that would spread ranches, roads, communities, acreages, coal mines, railways, cement plants, pulp mills, logging, lumber mills, gas fields, oil fields, strip mines, hydro projects, pipelines, seismic lines, tourist development up to, alongside, and even through these mountains.

So, asked to name some favourite wilderness areas in Alberta, he's pressed for an answer. He recalls with great fondness pack trips in the Littlehorn and the Bighorn regions, bordering on Banff National Park, northwest of Calgary.



“Those areas have elements of the wilderness,” he says. “But certain economic activities are allowed in there that inhibit it being pure wilderness.”

Worried these economic interests now dominate the government agenda, he likes to quote the Alberta Lands and Forests deputy minister who warned 35 years ago: “No matter how much man makes progress in the arts, the sciences, technical skills, etc., unless he can learn how to conserve and use the land wisely, he will perish and the nation will fall.”

Adds Beck: “Now that was a far-sighted bureaucrat.”

He has seen as close-to-pure wilderness as is possible in the Arctic, when he headed up environmental affairs for Elf-Aquitaine and later Petro-Canada, and as an independent consultant working in that region. An AWA founding member, he has served the cause of conservation on many prestigious governmental boards, including the Canadian Environmental Advisory Council, and on groups such as the Canadian Nature Federation and the Nature Conservancy of Canada.

As commissioner of the Mackenzie Delta-Beaufort Sea Land Use Planning Commission, he played a big role in the setting aside of Banks Island in the Arctic as a national protected area. True to his support for Aborigines, though, he ensured the continued hunting rights of native people were provided for.

Beck’s definition of wilderness: “It fosters appreciation of natural beauty and wild things in wild places . . . it imparts a strong sense of simply being.”

When people are in the wilderness, he notes, conventional social status loses its significance. The bonds of companionship are strengthened; people learn to co-operate better with each other.

He wonders about the wilderness heritage for his six grandchildren, but he still believes that “give nature half a chance, she’ll take care of things. But we must ensure she has at least half a chance.”

### Hyland Armstrong

The southeast Alberta, fourth generation rancher’s perspective on wilderness is typically provocative. Because virtually the whole world has been affected by human presence and human activities, “I’d be at a loss to describe what wilderness looks like,” he declares.

With records of human activities in North America going back at least 17,000 years, it’s hard to think of a place where man has never been. The dramatic rise in human populations since and ever-intensifying industrialization, including agriculture, impact even the remotest areas, he says. Consider, for example, the chemicals or dioxins found in most of the world’s ecosystems.

“Wilderness invariably involves a compromise,” he concludes.

In his own part of Alberta, he sees 95 per cent of the fescue grasslands, 50 per cent of the mixed grass prairie gone, thanks largely to agriculture.

But, he’s still grateful for being a rancher and spending most

of his time—in the summer, at least—on horseback in the outdoors in a beautiful setting, adjacent to the Cypress Hills’ Elkwater Provincial Park.

By training and by inclination, the long-time AWA member keeps a keen eye and a dynamic intellect actively assessing what’s occurring on the land.

“Unless you’re blind, it’s difficult to ignore the cloud patterns, the flow of the landscape and how the wildlife is using it,” says Armstrong, 47. “Because of my knowledge, I can see the changes taking place all the time.”



*Hyland Armstrong on his horse leading a hike in the Cypress Hills*

That knowledge, undoubtedly passed on from his ranching forefathers, grew further through his degree program in animal sciences, then later, his masters in plant ecology from the University of Saskatoon.

He agrees aesthetic considerations are also vital in the enjoyment of the landscape, and, “the less the human impact, the better the aesthetics.” He can still say “Wow” riding over a hill and spotting 300 elk grazing in the coulee below.

On reflection, though, he offers another perspective. “Maybe the definition of wilderness doesn’t depend so much on the presence or absence of nature, but on the presence or absence of peace of mind.” In other words, it remains a subjective view.

### Chelsea Masterman

The final word on wilderness goes to the younger generation—Chelsea Masterman, 22, elder daughter of noted outdoors writer Bruce.

She’s made countless trips to Kananaskis Country and other mountain regions west of Calgary, starting at five months. At eight months a cougar walked by her while they were camping in Waterton—or so her parents tell her. Fishing, hiking or just relaxing, it feels very comfortable out there, says the University of Lethbridge religious studies student.

The experience makes her “more connected to the world. I just breath in, and things seem simpler.”

Her first instinct is to associate wilderness, or at least the outdoors, with mountains and forests. But, she’s passed equally pleasurable hours on the prairie riding her horse, close to her



native High River. "Even though there are fences there, I get the same sort of feeling."

While worried about the loss of natural areas, she, too, brings a pragmatic approach to her definition of wilderness. Getting away from human impact is almost impossible, she agrees, but she still views as wilderness places where nature doesn't cater to humans.

"While we may have a presence there, we're not the defining feature."

She accepts, of course, different degrees of wilderness, and, while K-Country or Banff National Park may not fit purist definitions, the memories of camping, say, at Cataract Creek are still treasured. "The sound of the insects . . . the smell of the trees . . . they were all part of a family experience," Masterman



Chelsea Masterman

explains. "It feels free and laid back."

Looking to the future, she is ambivalent, though. While mourning over the ongoing loss of natural habitat, she poses an interesting possibility: "Maybe we'll adjust and develop a new concept of wilderness in 20 years or so." 🍂

## MAKING HAPPINESS THE PATH TO A SUSTAINABLE FUTURE

Heinz Unger, AWA Director



Our economies are based on the principle of continuous growth, they need more and more consumption, and our progress, success and wealth is measured as the Gross National Product (GNP). If there's negative growth of the GNP, profits shrink, stock values decline, investment is reduced, businesses lay off employees, and everybody gets alarmed. As a result, government will provide incentives to stimulate economic growth, and more oil, gas, lumber, minerals, urban and industrial expansion, water, grain, beef, etc. will be needed - all at the expense of wild areas.

Dr. Thomas Power's November 2002 lecture on "Post Cowboy Economics" (see *WLA* December 2002) dealt mainly with the question of whether environmental and wilderness protection may have caused some of the North American West's economic woes of recent years. However, some of the questions and the discussion following that stimulating lecture led to a conclusion that possibly the biggest threat to our wild areas is the ever expanding incursion into wilderness areas due to economic growth.

This dilemma made me think of the small Himalayan Kingdom of Bhutan, situated east of Nepal, and sandwiched between India and Tibet. The Government of Bhutan, not satisfied with the conventional definitions of progress, developed and adopted the concept of Gross National Happiness (GNH) as the goal for the country's and its people's development.

"Happiness is the ultimate desire of all human beings and all else is a means for achieving happiness," is the key idea of the GNH approach.

The Bhutanese leaders clearly recognized that Western cultures understand (economic) development to mean the

satisfaction of material needs and wants, which on an individual level translates into materialism and consumerism.

In Bhutanese culture, however, the original definition of development was based on the acquisition of knowledge, and those who possess greater knowledge are expected to impart their knowledge to others, leading to communal enrichment. Moreover, the Buddhist religion that is predominant in Bhutan, teaches respect and compassion towards all living things, and that man is just a sentient being, among other forms of existence. Bhutanese people therefore show an attitude of appreciation and reverence for the natural environment.

Based on these value systems, Gross National Happiness as a development goal comprises economic development, human development (education and enlightenment), communal and institutional development (good government), and environmental preservation. The results of the environmental development objective are rather striking: 26 percent of the area of Bhutan is protected areas with an astonishing biodiversity, and 72 percent of the country is under forest cover, most of it in pristine condition.

Although forests are clearly a key natural resource of Bhutan, one of the main tenets of the Bhutanese development philosophy is not to exploit them commercially, thus allowing them to act as a free carbon sink for the rest of the world. In fact, all trees including those on private land, are owned by the government, and people are usually allowed to cut only what they need for the construction of their own house.

Anecdotal evidence suggests that rural Bhutanese take crop losses caused by wild animals in stride, as a part of the natural give and take between humans and their environment; some villagers actually say that they plant a bit extra, just for the animals.

Research suggests that humans rely on living in biological



diversity for fundamental physical, mental and emotional needs, and that meaningful relationships with the natural world are necessary for human well-being (= happiness). Thus, in addition to being protected by the GNH concept, the wild areas and species of Bhutan also contribute to Gross National Happiness. So it should be no surprise that a country with rich wilderness and great biological diversity also emphasizes happiness, a key aspect of mental health.

Since the concept of happiness as a development goal is so appealing to many of us (and yields amazing results in terms of environmental protection in Bhutan), the question arises whether we have to be Buddhists to apply this approach successfully. Efforts in Western countries to define and measure progress in a different and more meaningful manner have so far not caught on, probably because those approaches have not caught the imagination of the people whose well-being is being evaluated.

For example, the Alberta Genuine Progress Indicators (GPI) of Sustainable Well-Being developed by Mark Anielski and Colin L. Soskolne includes many relevant indicators for economic, social-human and environmental well-being - 51 in total. The Alberta GPI accounts between 1961 and 1999 based on these indicators show that economic growth has been mirrored by a dramatic loss of ecological integrity (i.e. fragmentation) of Alberta's forests. These Alberta GPI accounts also reveal, not surprisingly, declines in stock and quality of natural capital, including soils, groundwater and wildlife habitat. So we do have the right kind of indicators, but when they tell us what we should know, do we heed them?

In addition to the recognition that more consumption does

not lead to more happiness, there is also the issue of global justice and equality that should lead us to curb our material appetites. Therefore, the Worldwatch Institute recently questioned our current approach of "Consumption as a Way of Life".

The Institute posits that we need ecological tax reform and alternative approaches to production, consumption and recycling ("Lean and Clean" plus "Zero Waste"), altogether with a rethinking of products and services. It is suggested that there may be a way out of the "Work-and-Spend Trap" (now that sounds appealing!), but only if we adopt new dynamics and values. We would have to recognize that a sustainable economy needs a different theory, and abandon the outdated assumption that quantitative growth is unconditionally desirable and embrace instead the notion of qualitative growth.

Using Genuine Progress Indicators, and living "Lean and Clean" and producing "Zero Waste", all sound pretty good, but saving the wilderness through striving for happiness seems to be a more appealing way to go, and we don't have to be Bhutanese nor Buddhists to do that. 🌿

#### Links:

Alberta Genuine Progress Indicator

- [http://www.nrtee-trnee.ca/eng/programs/Current\\_Programs/SDIndicators/Program\\_Research/Abstract\\_GPI\\_Pembina\\_E.htm](http://www.nrtee-trnee.ca/eng/programs/Current_Programs/SDIndicators/Program_Research/Abstract_GPI_Pembina_E.htm)

World Watch Institute

- <http://www.worldwatch.org/features/consumption/sow/trendsfacts/2004/05/05/>

---

## ACTIVIST'S ODYSSEY FAR FROM FINISHED

Andy Marshall

Soon after Martha Kostuch arrived in Rocky Mountain House from her native Minnesota almost three decades ago—husband, baby and \$600 cash in hand—she became an active, outspoken and successful opponent of the Odyssey resort project proposed on pristine land by the Cline River on Highway 11.

As a remarkable testament to her resiliency and dedication to preserving our natural environment, here she is today, raring to take on the Abraham Glacier Resort proposal close to the site of the original project she helped sink all those years ago.

"I'm always circling. Issues don't seem to go away," says Kostuch, 55, still living above the animal clinic she bought with borrowed cash in 1975, two years after graduating from veterinary college in Minnesota. .

Is she daunted by the prospect of yet countless more hours of research, appearing at yet more hearings and taking on yet another corporate juggernaut? "Not at all. I'm looking forward to the fight. I'm rubbing my hands together," she says in half-amusement.

Her tone, so clearly identified as a prime voice for environmental activism in Alberta, has an edge to it. Arising from a character that won't back down in the face of the most insurmountable-appearing of odds, it is direct, often blunt. That original Odyssey struggle certainly launched an adventure-filled journey, creating almost mythical status for the mother-of-four sons.

Kostuch stands five feet, three inches. She jokes that her industry and government adversaries like to describe her as "seven feet with two heads." She has thick skin, she adds, an attribute learned growing up as one of eight children on their Moose Lake, Minn., hobby farm. "It was natural for us to have arguments at the dinner table."

Those early years also taught her an easy familiarity with all kinds of animals and creatures. She spent a large part of her time "out in the woods," developing the love of the natural world that keeps inspiring her into action today.

Add "effective" to the other words of praise from supporters and opponents for Kostuch. In her own words: "I don't lose." Along with forming the Alberta League for



Environmentally Responsible Tourism (ALERT) in 1978 to block the Odyssey project, she became active at about that time in tackling the issue of sulphur dioxide emissions she linked to cattle and human sickness in the west-central region of Alberta.

Today, as a key member of the Clean Air Strategic Alliance (CASA), Kostuch can note with satisfaction the emissions from two sour gas plants near Rocky Mountain House are less than a fifth what they were when she arrived.

“Through CASA, we’ve also made huge progress on flaring and venting,” she says. That was achieved through volunteering hundreds, if not thousands, of hours participating in hearings and, as she says, “making a lot of noise.” Not one to rest on her laurels, she adds: “There’s still lots to be done.”

Other key activities raising her profile throughout Alberta and Canada include her involvement with the Friends of the Oldman River fighting the Oldman River Dam, her advocacy on behalf of the fisheries, as well as her campaign against the logging practices of Sunpine Forest Products.

While the dam was eventually built after an epic battle in the courts and through the news media, and was chalked up by some as a loss, Kostuch sees a victory.

“As a result, well over \$100 billion in projects have undergone environmental assessments . . . we have stronger federal assessment legislation,” she explains. “The protection of fisheries has been strengthened . . . and not a single large dam has been built in Canada since.”

Kostuch brings many other skills to her activist agenda. Analytical and passionate at the same time, she has a steel trap of a mind that can grasp all kinds of legal questions—useful in the Supreme Court battle over the Oldman Dam, for example. She has a facility for organizing ideas and people. And, she’s driven by an ethic that says: “If you see something wrong, you have a responsibility to do something about it.”

She won’t accept passively what officialdom will hand down from on high—a virtue she associates with her U.S. upbringing and which she worries is less ingrained among polite Canadians. She’s definitely persistent, she agrees.

She also doesn’t get flustered doing more than one job at a time. While being interviewed for this story, she is preparing a chicken barbecue for some of her beloved family members. No longer married to Tom, she has 13 grandchildren, some from people she informally adopted in their teens.

As a former environment reporter at the Calgary Herald, I recall Kostuch taking calls and responding to complex issues

while operating on an animal in her clinic. “I multi-task a lot,” she says.

A fundamental aspect of her modus operandi has been her acceptance of a range of strategies—from non-violent civil disobedience to collaboration. “I am pragmatic,” she explains. “If there’s not much awareness about an issue, then I have to make a lot of noise. But once you have people’s attention, then sitting down to find a solution might be a better approach.”

From the co-operative to the adversarial approach, “I happen to have the ability to work in all of those.”

Because of the respect Kostuch engenders, she has built up a wide network. “I work with many sectors: individuals, government, industry, the environmental movement and the media,” she says.

Significantly, she’s worked hard to avoid attacking people.

“I deal with issues,” she says simply. A testimony to that is the annual canoe trip down the North Saskatchewan she offers to government and industry types. “Apart from being a good idea, I enjoy it,” she explains. “Many of my enemies are my friends.”

A further sign of the widespread respect was her nomination for Alberta Environment’s first individual Emerald Award about 10 years ago. Some in government bitterly opposed the nomination. But, she won anyway.

The Canadian Nature Federation award last year and the Canadian Geographic silver award one year earlier are among more recent honours. And, in the fall, she will receive an Alberta

Wilderness Defenders Award. “I don’t do what I do for awards. But recognition helps me gain more credibility and ability to do things.”

Apart from the groups already mentioned, Kostuch has played leadership roles in many organizations, including the Alberta Environmental Network, Prairie Acid Rain Coalition, National Air Issues Co-ordinating Committee, Friends of the West Country and the Rocky Mountain House Chamber of Commerce.

Despite the hectic pace, she still savours the company of her extended family and loves to spend time with the grandchildren. Although as a concession to age she doesn’t help as much with the calving, she also loves her job as a vet.

And when pressures mount, she can still go walking in the woods. “I’m a very proud tree-hugger,” she laughs. “I get a lot of energy from nature.”

Future adversaries, watch out. Kostuch has a lot of fight left in her. ❁



Martha Kostuch



# ALBERTA WILDERNESS WATCH

## ALBERTANS HIGHLY VALUE WILDERNESS SURVEY SHOWS

Ian Urquhart



For an overwhelming number of Albertans wilderness makes an important positive contribution to the quality of life they enjoy. This is one of the striking conclusions from a poll on a range of wilderness and protected areas issues commissioned by AWA.

In late April the Population Research Laboratory at the University of Alberta conducted its Alberta Survey, an annual poll of 1,200 Albertans. This year AWA added seven questions to the survey. The questions addressed the following issues: the contribution of wilderness to the quality of life in Alberta; political benefits and costs of wilderness protection; and, the attacks on wilderness taking place in Lakeland, east of Lac La Biche, and in the Bighorn Wildland, west of Rocky Mountain House.

The general support for wilderness among the survey respondents was stunning. Three quarters of the respondents (76.4%) strongly agreed with the statement “(p)rotecting wilderness makes a positive contribution to the quality of life in Alberta.” Only 8 people, less than one percent of the sample, strongly disagreed with this proposition.

It is one thing to identify the general enthusiasm people have for the intrinsic value of wilderness; it is quite another though to convince our political leaders that protecting wilderness has political value. Can a party promising to extend wilderness protection expect to receive more or less support at the polls?

The survey probed this issue by asking respondents how they would respond to a political party promising to designate more public land in Alberta as wilderness. The results were encouraging. On balance, parties advocating wilderness protection can expect to receive more, not less, support from Albertans at the polls. Fifty-one percent declared that, in a provincial election, they would be more likely to support a party making that promise. Less than ten percent would be less likely to support a party they made this commitment to wilderness protection.

Currently, AWA is vigorously fighting the threats industry and irresponsible off-highway vehicle use pose to the future of the Bighorn Wildland. AWA's stance is very much in tune with public opinion in the province.

Participants in the survey were asked if industry and OHVs, already allowed to operate in large sections of the Eastern Slopes, should still be banned from the Prime Protection Zone. This zone, established by the province's Eastern Slopes Policy, was

intended to protect areas characterized by outstanding watershed, wildlife, and visual values. Impressive majorities strongly agreed with the proposition that industry and OHVs should be prohibited from operating in the Prime Protection Zone. Two-thirds of the respondents adopted this position while only two percent strongly disagreed with the wisdom of this approach to land use management.

Lakeland is a boreal treasure rapidly being tarnished by resource industry incursions. A recent report prepared for the World Wildlife Fund and Alberta Pacific Forest Industries concluded that this area east of Lac La Biche has high conservation value. The report noted that its magnificent old-growth forests and lakes are home to at least 153 species of birds, 18 species of orchids, and rare plant species such as the pitcher plant. In recognition of values such as these and the inadequate level of protection that currently exists in Lakeland, AWA is lobbying government and industry to try to secure additional protection in the area.



Lakes and mixed boreal forest in Lakeland

This initiative, like AWA's work in the Bighorn, resonates well with Albertans. Two-thirds of the people polled in the Alberta Survey agreed (42% of them strongly) with the suggestion that the provincial government should resolve the conflict in Lakeland between wilderness values and logging/oil and gas development in favour of wilderness; wilderness protection there should be increased. Only seven percent disagreed with this recommendation.

One innovative option for extending protection in the central mixedwood portion of the boreal forest involves

the Cold Lake Air Weapons Range (CLAWR). The Range sprawls over nearly 12,000 square kilometres in eastern Alberta and western Saskatchewan. It is home to threatened woodland caribou, rare bird species and colonies, and a number of environmentally significant areas. Creating a protected area within the Range could further AWA's conservation objectives in the boreal forest.

Would Albertans support this option? Two-thirds agreed (39% strongly) with the recommendation that the provincial government should endorse a proposal to establish a protected area in part of the CLAWR. Seven percent did not support this option.

Taken together the results from the Wilderness/Protected Areas Survey confirm how well AWA's objectives fit with those of the general population. In the months ahead we hope to use these results to good effect in our discussions and negotiations with government and industry.

*(The final survey report will be available on our website.)*



# OUR HEALTH, OUR RESOURCES, OUR WILDERNESS, OUR RIGHTS

Jason Unger, AWA Conservation Specialist



Resource extraction in Alberta, as elsewhere, creates a complex web of effects on the surrounding environment. These environmental effects will often in turn cause adverse health effects in residents, whether those residents are human, plant or animal. For the most part the adverse effect cannot be directly attributed to a particular industrial development and, therefore, the impacts are often marginalized or trivialized.

The complexity of environmental impacts and this inability to show the cause-effect relationship of environmental and individual harm has resulted in an increase in the number of conflicts between oil and gas development and local inhabitants.

These conflicts juxtapose the “public interest” and its apparent obsession for oil and gas revenue and an individual’s right to be healthy or to be free from potential adverse environmental impacts associated with oil and gas development.

But do we, as Albertans and Canadians, have a legal right to a right to be healthy? Furthermore, if we do have such a right, would exercising this right have an effect on how oil and gas is developed?

These questions were posed as part of a recent workshop produced jointly by the Canadian Institute of Resources Law (CIRL) and the Alberta Civil Liberties Research Centre (ACLRC) entitled *Health, Culture and Oil and Gas: Some Human Rights Issues*. The workshop dealt with a broad range of issues relevant to oil and gas development: freedom of speech and expression, the right to culture or a way of life, the federal role in relation to regulating toxic substances, municipalities roles in environmental and health regulation, and the right to health (or a healthy environment). While all these topics are worthy of discussion it is the right to health, or a healthy environment that elicits thoughts of better oil and gas regulation, environmental protection and living in a clean, healthy environment for years to come.

Whether the right is stated as a right to health or a right to a healthy and clean environment both rights imply a right to be free of harm from environmental pollutants. The existence of either right, therefore, has significant implications on resource development in Alberta.

If the rights do exist they would be found in the laws and

regulations or in the judicial decisions of our country or province. A review of international and domestic law by Nickie Vlavianos in *Health, Human Rights and Resource Development in Alberta: Current and Emerging Law* (CIRL) concludes that, while a right to health or a clean healthy environment does not currently exist, such a right might be said to be emerging, especially in international law. Domestically the right to health is not currently legislative; however, this does not preclude an individual from asserting the right.

One of the legal tools available to assert an individual’s rights is the Canadian Charter of Rights and Freedoms. The Charter itself only protects rights from impugning government action (i.e. laws, procedures, etc.) and not actions of private individuals or corporations. The assertion of a Charter right is nevertheless significant when consideration is given to the breadth of regulatory roles the government plays in oil and gas development.

Section 7 of the Charter, in particular, with its right to not be deprived of one’s “security of the person” “except in accordance with the principles of fundamental justice”, has the potential for expansive judicial interpretation that, with the proper facts, and perhaps a bit of judicial activism, may come to encompass a right to health.

The follow up question to whether the right may be effectively asserted is whether the right would affect how oil and gas is developed? Put more bluntly, will a right to health or a right to a healthy environment make a difference?

The answer appears to be “likely”, albeit with the qualifier, the devil is in the details.

If a right to health is established under the Charter the potential for application of the right in regard to government action and legislation may be far reaching. Traditionally participation in oil and gas development decision-making processes has been more narrowly defined based on financial and property interests. This could be expanded to allow the participation of individuals whose right to health is infringed (see Vlavianos pp. 33-35.) This might include creating opportunities to participate earlier in the decision making process and in a more effective manner.

A right to health or a healthy environment may also be used to alter the current perception of the “public interest”.



Flaring from the gas plant near Cochrane

V. Pharis



Interpretation of what constitutes the “public interest” in Alberta has historically favoured resource development. An established right would both increase awareness of the adverse impacts of development and would make it more difficult for government regulatory bodies to marginalize the impacts, since doing so would risk infringing the legally protected right. This in turn may create a “public interest” focused more on pollution prevention and minimizing the potential health impacts.

Finally, a right to health or a healthy environment may be used to assert that government is not doing enough to protect the public from toxic environmental pollutants resulting from resource development. As noted in the CIRL/ACLRC workshop, regulation of toxic substances falls, in part, to the federal government under the Canadian Environmental Protection Act (CEPA).

CEPA purports to regulate, among other things, the creation, trade and emissions of toxic substances in Canada. However, very few toxins have been assessed under CEPA and few have attracted regulation under the Act. A right to health or a healthy environment may put legal and public pressure on governments to assess and regulate toxic substances more thoroughly. In the oil and gas context this may include assessment and possible regulation of H<sub>2</sub>S, something that does not currently exist federally.

The implications of a right to health for oil and gas development will be governed by how broadly or narrowly the right is defined and what will be considered an infringement of that right. If broadly defined such a right may allow individuals and groups to participate more fully in decision-making and to provide more tools to affect change in how oil and gas development is regulated.

The realization of such a right may assist in a transition away from the traditional view of the public interest, based in oil and gas revenues, to a public interest definition that acknowledges and considers the significant cost of impacting people’s health and effecting the health of the environment.

Considering that the long-term economic prosperity of Alberta requires healthy people and clean, healthy and productive land it is disheartening that our current laws and regulations do not recognize these significant rights. By asserting a right to health or a healthy, clean environment, we may hold our governments to account for the decisions that are made in oil and gas development. Perhaps then the true human and environmental costs of our continued hydrocarbon resource dependence will be recognized and steps can be taken to ensure that we have our wilderness and our health well into the future. ❁

## FATE OF ABRAHAM GLACIER WELLNESS RESORT TO BE DECIDED SOON

Lara Smandych, AWA Conservation Biologist



On March 24, 2004, the County of Clearwater Municipal Planning Commission (MPC) refused the application made by 1006335 Alberta Inc. (Alberta Inc.) for a development permit for the Abraham Glacier Wellness Resort. Among the reasons for refusing the

application were the unsuitability of the site chosen for the resort and the fact that the applicant had not undertaken the necessary studies on the proposed sites. The proponent chose to appeal this decision.

On May 4, 2004, the Subdivision and Development Appeal Board (SDAB) hearing was underway regarding the appeal against the refusal of the resort development permit. The purpose of the hearing was to hear submissions from the proponent, the County staff, and affected persons both in

support and against the proposal. To our dismay and in breach of the County’s own agenda, the hearing was not closed but rather adjourned until May 27, 2004.

From the outset, the hearing was almost entirely monopolized by the proponent and his entourage of experts. The County agenda clearly outlined that both the County and the proponent would be allocated one hour to make a presentation in support of their positions regarding the application for development and the MPC’s decision.

Although the County stayed within their time allotment, the proponent presented over two hours worth of project changes, new information, and expert opinion to the SDAB. Due to the quantity of new information, the SDAB adjourned the hearing to give themselves time to review the new information and to provide the public the opportunity to update submissions in light of the changes.



Abraham Lake



The SDAB had received approximately 145 written submissions from concerned parties in opposition to the resort development. Furthermore, many affected parties were present at the appeal hearing. These groups and individuals had taken the time to attend to hearing as well as prepare informed oral submissions based upon the original project proposal. These groups were given no opportunity to present to the SDAB due to the adjournment. In many cases, the submissions were no longer relevant due to the changes made by the proponent.

The appeal process requires that the SDAB review the decision made by the MPC based upon the same proposal the proponent originally presented to the MPC. What the proponent presented on May 4 was in essence a new project proposal. There were a significant quantity of new maps, reports, and changes made, including the removal of buildings, and the relocation of the access road. This new proposal should, therefore, not be eligible for an appeal since it has yet to be reviewed by the MPC. The proponent should be required to re-apply.

At the hearing on May 27th, affected persons and groups were given the opportunity to make oral presentations to SDAB in support or opposition to the resort development.

There was overwhelming opposition to the resort development by groups and individuals. Among the main points of emphasis were the size, type and location for the resort, as well as the need to undertake an Environmental Impact Assessment (EIA) to identify the impacts on wildlife, vegetation and special features in the area. Most presentations in support of the resort were representatives of the proponents own consultant team.

The Appeal hearing will reconvene on Thursday, June 10, 2004 at 9:00 am at the Clearwater County Administration Building in Rocky Mountain House. This will allow the County Development Staff and proponent the opportunity to review the submissions and to present their responses and summations. All are welcome to attend. Thank you to all who opposed the resort and who sent letters or made presentations at the appeal hearing. 🍁

---

## PUBLIC GRASSLAND TRADE VIOLATES THREE LAWS

Dr. Mark S. Boyce

*The following letter was sent to Mike Cardinal, Minister for Sustainable Resource Development (SRD) on May 5, 2004. Previous articles on this public land trade issue can be found on AWA's website under Issues/Public Lands.*

I am writing to express concerns about an exchange of lands north of Bow Island between SRD Public Lands and Mr. Louis Ypma and Mr. Jerry Holtman. In my capacity as President of the Alberta Chapter of The Wildlife Society, the world's largest organization for professional wildlife scientists, I FOIPed your offices for information about this land exchange and subsequently have sought legal counsel.

The proposed land exchange has not been consummated, yet already Albertans have lost four sections of native grassland that was known to provide habitats for burrowing owls (*Athene cunicularia*) that are classified as "at risk" provincially, and federally listed as an endangered species.

In addition the native prairie lands were known to provide habitats for long-billed curlews (*Numenius americanus*), which is of special concern according to COSEWIC and "may be at risk" in Alberta, and Swainson's hawk (*Buteo swainsoni*), listed as sensitive in Alberta. The destruction of habitats for these species, in particular for burrowing owls, constitutes a clear violation of Alberta's *Wildlife Act* and the provincial commitment to the Accord for the Protection of Species at Risk.

We also note that before the land exchange was completed Mr. Ypma ploughed the entire area during the peak of nesting season in mid-June 2003 and planted it into cereals. This was

done within three days of his receiving a proposal from Public Lands suggesting that the province would entertain the land exchange, but the land exchange has not yet happened.

There can be no question that Mr. Ypma violated the *Public Lands Act* because he did not have an agricultural disposition to plough this property. As well, any intentional destruction of nests or eggs without authorization is a violation of the *Alberta Wildlife Act*. Any incidental taking of nests or eggs without authorization, intentional or not, is a violation of the federal *Migratory Birds Convention Act*, 1994.

We are very disturbed by the highly irregular and unethical procedures that were followed during this land exchange. A wildlife survey was conducted during 2002 October (a season when migratory endangered species would not be on the site) by a consultant, Greg Wagner, who stated:

"Poston *et al.* (1990) rate this area as being locally important to Burrowing Owls. Searches of the BSOD database reveal that four at risk wildlife species (Burrowing Owl, Long-billed Curlew, Pronghorn, and Swainson's Hawk) have been observed on the study area."

Yet, in obvious disregard for these facts, Public Lands prepared a briefing document for you that incorrectly and inappropriately stated "This assessment did not identify any species 'at risk'."

The loss of native prairie in Alberta is a very serious matter for conservation in Alberta. Seven of nine "at risk" species in this province occur in SE Alberta because the area has been extensively developed for agriculture, oil and gas. Concerns



about the serious wildlife consequences of the proposed land exchange were raised by several provincial wildlife biologists, yet their pleas were ignored by Public Lands.

The Wildlife Society continues to be concerned about the failure of your Ministry to give professional wildlife biologists due respect and consideration in resource management decisions in this province. Richard Quinlan summarized the concern in an e-mail that we obtained through our FOIP:

"I agree with Joel [Nicholson] that this is very serious. It is perhaps the worst example in recent history of negligence by Public Lands Division regarding referral of a key resource issue. It clearly shows that we cannot continue with the inadequate referral process that has been forced upon us since 1993. We can no longer accept the reversion to simply being advisors to the process, but rather need to be equal partners in review of development proposals, with a requirement for mutual agreement on approvals. The rationalization for being advisors was that the land management agency has the mandate and will pay the price if our advice is not sought or not followed. This example shows that this is not the case. It shows the flaw of logic in our reversion from the mutual agreement requirement of the '80s to the advisor role initiated in the '90s. We need to ensure the flawed process is corrected. With respect to this specific folly, I suggest this should be taken up with our joint Executive Director for the region and should also be dealt with between the ADMs."

Because this land exchange violated provincial regulations under the *Public Lands Act* and the *Wildlife Act*, and was in violation of the Migratory Bird Treaty with the United States and Mexico, and federal regulations under the *Migratory Bird Convention Act*, 1994, your failure to follow process could merit judicial review.

This land exchange was a serious mistake. The four sections of public land and two sections of private land that have been ploughed by Mr. Ypma and Mr. Holtman have been lost and it will take decades to restore these lands to anything close to their wildlife value prior to ploughing.

We believe that two actions on your part seem necessary. First, you should ensure that only those lands of equal or superior conservation value be considered by the government in exchange. The lands that Mr. Ypma and Holtman have produced to date do not meet this criterion as stated by Fish and Wildlife's Non-Game Biologist, Joel Nicholson, who

visited the properties proposed for exchange on 2003 June 19, and noted several problems with the proposed land exchange such as roads, oil and gas development, and planting to crested wheatgrass. He concludes:

"Overall, I do not believe this land trade to be in the interests of the wildlife or the public land resource in Alberta. The proposed lands are not consistent with the criteria previously laid out by Fish and Wildlife staff. I am also very concerned that Public Lands staff making these assessments for wildlife values (as has occurred in this case) as they are not professional biologists and do not have the specific biological expertise needed to make these judgements."



Environmentally significant native grassland in the Grand Forks area ploughed up for crops.

AWA Files

Second, we implore you to change your current approach to fully engage the expertise of the wildlife biologists on your staff and to make them full partners with Public Lands and Forestry in land-management decisions. Clearly the current system does not work effectively to ensure protection of fish and wildlife resources in Alberta, and neither Public Lands [n]or Forestry has the professional staff qualified to perform wildlife surveys and to evaluate the legality and appropriateness of land-management decisions.

I have been repeatedly impressed by the dedication of your Fish and Wildlife staff who are highly qualified wildlife and fisheries biologists, including several who are Certified Wildlife Biologists (The Wildlife Society) or Professional Biologists (Alberta Society of Professional Biologists). Your Fish and Wildlife professionals merit mutual respect along with your staff in Public Lands and Forestry. Specifically, we request that you renew a commitment to the provincial government's insightful *Report of the Task Force: Internal Referral Systems of Alberta Forestry, Lands and Wildlife* (May 1989).

Our motivation for writing this letter is to ensure that SRD's performance on this land exchange is not precedent setting and to request changes in policy regarding land exchanges. We believe that a public forum should be engaged for all land trades, but this is not a current requirement. We would like to have you explain what action items you will implement to ensure that such serious losses do not occur in the future. 🍁

(Dr. Mark S. Boyce is a wildlife biologist at the University of Alberta and President of the Alberta Chapter, The Wildlife Society)



# WATER - A SCARCE NATURAL RESOURCE OR A FREE GOOD?

Richard C. Secord, AWA President



Last year, Alberta Environment gave Capstone Energy a licence<sup>1</sup> to withdraw 328,500 m<sup>3</sup> of fresh potable water on an annual basis<sup>2</sup> from a water well adjacent to the Red Deer River<sup>3</sup> for use in an oilfield injection or waterflood scheme. I had the privilege of representing three local landowners who lived downstream from the proposed Capstone water well who were opposing the decision of Alberta Environment. Also appealing the decision were the City of Red Deer and the Mountain View Regional Water Services Commission, which provides water to a number of municipalities in the Red Deer area.

The Alberta Environmental Appeals Board (“EAB”) provided the Minister of Environment with a *Report and Recommendations* on April 26, 2004<sup>4</sup> arising out of a series of appeals from the decision of Alberta Environment. The Minister accepted the EAB recommendations on May 18, 2004 by issuing Ministerial Order 07/2004, at which time the much anticipated EAB Report was released to the public.

In its report the EAB stated that “[t]hese appeals have resulted in one of the most difficult “balancing act” cases to come before the Environmental Appeals Board in its ten plus years of existence. We are effectively being asked to chose between competing purposes of water use.”<sup>5</sup>

The appellants argued that Capstone’s proposal to inject fresh water into an oil-bearing formation 4,000 feet below the surface of the earth results in the fresh water being lost forever from the hydrologic cycle. The EAB agreed. The appellants also argued that Capstone’s use of fresh water for an oilfield injection scheme was contrary to the conservation purpose of the *Water Act*<sup>6</sup> and contrary to policies established pursuant to the *Water Act*.<sup>7</sup>

The appellants also argued that alternate sources to fresh water, such as non-potable saline produced water, should be fully investigated before water licences for fresh water are handed out by Alberta Environment to oil companies like Capstone Energy. Although the EAB did not go as far as the

appellants would have liked, in my view, the EAB made a number of very important statements that bode well for the future conservation of Alberta’s fresh water supply.

The Board stated that “[f]resh water, whether from a ground water source or a surface water source, is a scarce natural resource, having great value to all Albertans, and there is no reasonable basis on which to justify a more stringent approach to the use of one source of fresh water over another in times of increasing demand for both surface and ground water, which we find to be the case particularly in the Red Deer region. In the Board’s view, where fresh water is being lost from the hydrologic cycle, the distinction between surface

water and ground water is not appropriate. The overall impacts on the environment and humans are the same. There should only be one policy and that is for fresh water. The policy should apply to the use of all fresh water for oilfield injection purposes, and, though it is not necessary for this decision, the Board hopes that there will be soon be policy direction, that deals with fresh water regardless of its source.”<sup>8</sup>

The Board stated that “[a] more difficult determination, which leaves the Board with a great deal of uncertainty, is

whether non-potable water options were adequately considered by the Certificate Holder [Capstone] and subsequently by the Director.”<sup>9</sup>

The Board went on to state that “[a] more complete approach to the analysis of alternatives would be a two step analysis. First the technical, economic and regulatory feasibility of alternatives to fresh water should be fully considered. The depth of the analysis may vary for each alternative but it would be consistent with the *Water Act*’s purposes to prove to the Director (in writing and with greater documentation) the feasibility of the “next best” alternative. In the judgment of the Board, only if there is no other feasible alternative, such as adjacent supplies of produced water, which in this case there may be according to Mr. Graham’s statement cited above, should fresh water be considered.”<sup>10</sup>

This approach is a welcome one and if followed by Alberta Environment, should result in an immediate reduction of the use of surface water and ground water for oilfield injection



Red Deer River

R. Hooper



schemes. In this case the Board used that analysis to reduce the rate of water withdrawal from 900 m<sup>3</sup>/day to 600 m<sup>3</sup>/day for a total allocation of 219,000 m<sup>3</sup> annually.<sup>11</sup>

The Board went on to recommend to the Minister that the Certificate be varied to add a condition that requires the Certificate Holder to utilize produced water where at all possible and to provide the Director with a report detailing its more complete investigation of alternate water sources.<sup>12</sup>

If the report indicates that a viable alternate water source can provide more than 300 m<sup>3</sup>/day, then for every 1 m<sup>3</sup>/day of water that the viable water source can provide in excess of the 300 m<sup>3</sup>/day, the amount of fresh water allocated under the proposed Licence should be reduced by 1 m<sup>3</sup>/day.<sup>13</sup> The Board stated “this approach properly recognizes the value and importance of wisely using the limited surface water that is available in this constrained area of the Province.”<sup>14</sup>

Not all, however, are happy with the Minister’s endorsement of the EAB Report. In a recent editorial in the *Red Deer Advocate* (May 19, 2004), managing editor, Joe McLaughlin, stated: “[f]or years, oil companies in Alberta have been applying for and receiving permission to use water to flood oil wells. The amount of water it was asking for represents less than one per cent of the river’s annual flow, an amount that Capstone argued was insignificant to other users. But it’s not insignificant.

“If you look at the Red Deer River in the city today, it’s as low as most of us can ever remember. Meteorologists are predicting another year of drought. Snowmelt is down again and the glacier at the source of the river is shrinking. That melting adds to the river’s flow and gives an illusory picture of what’s really happening. When the glacier is gone, we are hooped. As David Schindler, the world renowned water expert, told an audience in Red Deer in March, the heat that is melting the mountain glaciers is also evaporating that water as it flows east, so it never reaches its traditional destination.

“Around the world, rivers are drying up before they reach the sea. Western Canada is not immune to that dread trend, which is driven by global warming. Water is the staff of life. It’s needed for every significant human endeavour. Without it, crops die, businesses die, cities die, people die.

“Pumping water deep underground, out of the hydrological cycle for tens of thousands of years, is about the worst use of water we can imagine as supplies shrink and demands for water grow. It has been allowed in the Alberta oilpatch for years, because water has been treated as a free good. It’s not a free good and that kind of misuse cannot continue.

“There are alternatives to fresh water for building up pressure underground to force petroleum resources to the surface. They are more costly, but that’s a price that must be paid. There are no alternatives to fresh water for animal and plant consumption.

“Alberta law must be changed to reflect these unassailable facts. Right now, provincial law does not permit a water

licence to be rejected on the basis of use. In the government’s mind, then, all uses are valid, which means that even if the Environmental Appeal Board had wanted to deny Capstone’s application outright, it would have been severely hamstrung. This is a preposterous and unsustainable proposition.

“A spokesman for the Alberta Environment department told the *Advocate* on Tuesday that Environment Minister Lorne Taylor would like to see the eventual elimination of the practice of injecting fresh water down oilwells. That can’t happen soon enough. Our water is running out.”

One can only hope that Environment Minister Lorne Taylor will take action to eliminate the practice of injecting fresh water down into oil bearing formations beneath the earth.

However, draft recommendations to the Minister of Environment in a recent report by the Minister’s Advisory Committee on Water Use Practice and Policy are very weak.<sup>15</sup> In particular, the recommendations do not require companies to look for alternatives before applying to use surface water for oilfield injection and do not require the elimination of the use of fresh water for oilfield injection, even as a long term goal.

I encourage you to write to Environment Minister Lorne Taylor to request stronger recommendations and to take action. 🍁

#### Footnotes

1. Preliminary Certificate No. 00198509-00-00
2. A maximum daily rate of 900 m<sup>3</sup>
3. The infiltration well (with a production interval of 0-7.43 m) was located in a fluvial gravel formation at SW 4-36-1 W5M
4. Mountain View Regional Water Services Commission et al. v. Director, Central Region, Regional Services, Alberta Environment re: Capstone Energy (26 April 2004), Appeal Nos. 03-116 and 03-118-121 (A.E.A.B.)
5. *Ibid*, para 4
6. R.S.A. 2000, c.W-3
7. Alberta Environment and Capstone argued that the policies did not apply because the water being used was surface water from the Red Deer River, and not ground water, which has more protection under the applicable policies.
8. *Ibid*, para 177
9. *Ibid*, para 184
10. *Ibid*, para 187
11. *Ibid*, para 188
12. *Ibid*, para 189
13. *Ibid*, para 191
14. *Ibid*, para 192
15. The government’s media release can be read at [www.gov.ab.ca/acn/200404/16328.html](http://www.gov.ab.ca/acn/200404/16328.html)



Marsha Hayward ©



# CHEVIOT MINE BRINGS HOST OF ACCESS PROBLEMS

Alison Dinwoodie

The Cheviot Mine is not the only issue in the Cardinal Divide area that is of concern; recreation access is also of prime importance. On April 30, 2004 a Stakeholder and Public Access Management Plan (AMP) meeting for the area was held, chaired by Cardinal River Operations Consultant, Curtis Brinker, but held under Sustainable Resource Development auspices at their office in Hinton. The 'Stakeholders' in this case were almost entirely motorized recreation representatives. They have been meeting for a couple of years with appropriate government managers to discuss OHV access to reclaimed mine sites (e.g. Gregg and Luscar).

At a recent meeting of the Stewards of Whitehorse Wildland Park (WWP) with Cardinal River Operations (CRO), we stressed the need for the Stewards to be involved with the discussions on access management in the Cheviot Mine area, as this could directly affect the ecological integrity of the adjacent WWP. As the current meeting was the first to involve the Cheviot Mine I asked to be involved as a Steward of WWP.

I was not able to be present at the meeting but I made a submission and wrote a letter asking for the AMP to be discussed at the regional level, as recommended by the Panel at the Alberta Energy and Utilities and Canadian Environmental Assessment Agency (EUB / CEAA) hearings in 1997. Apparently SRD will be organizing this. Alberta Community Development is also getting involved, because of WWP, and other non-motorized recreation groups should also be able to have a say, so it should be a much wider and more comprehensive meeting.

The following is based on a submission made to the Stakeholder and Public Access Management Plan meeting in April 2004.

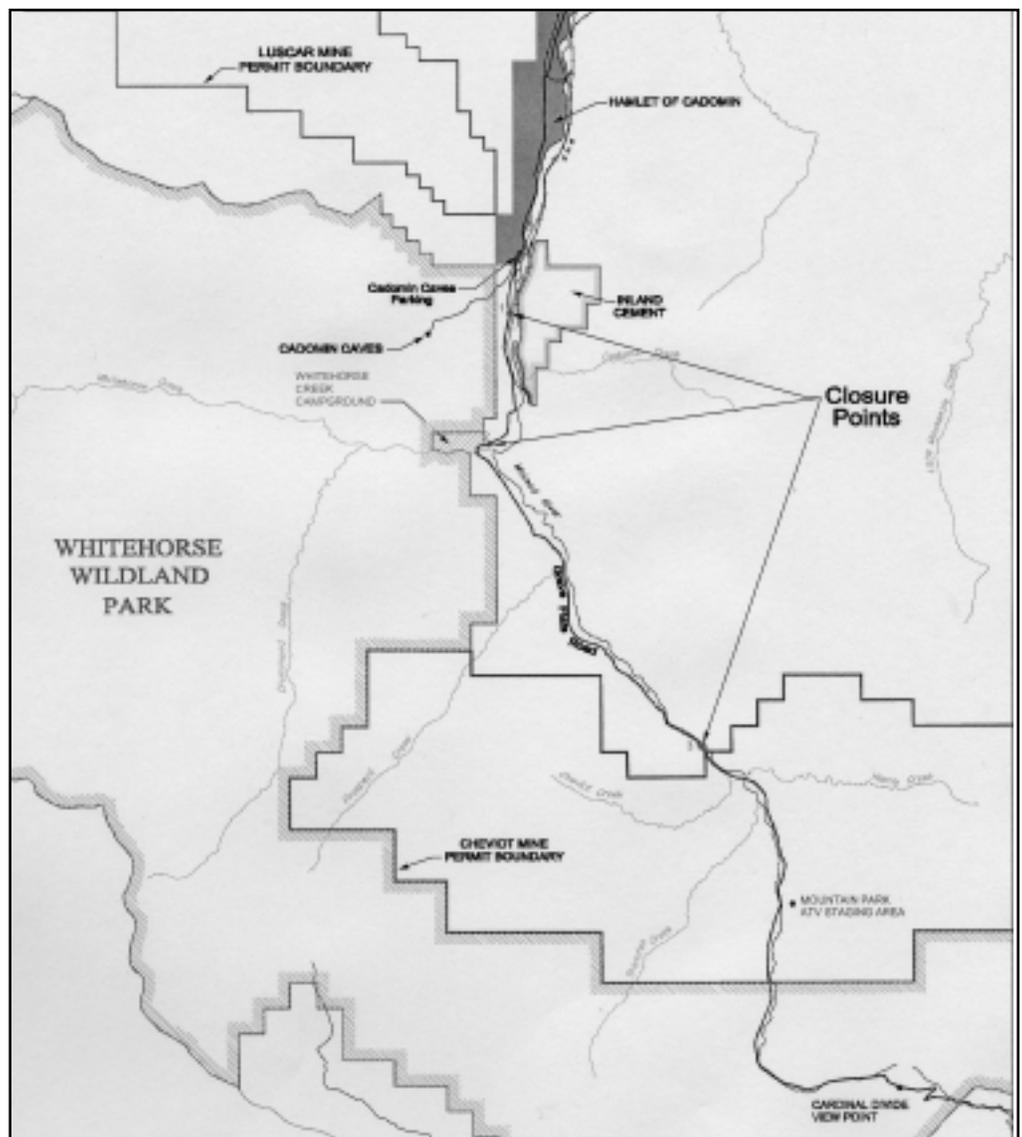
At the EUB / CEAA hearings in 1997, the Panel accepted the importance of the Cardinal Divide Natural Area (later the WWP) as a major mitigating factor for the mine as a wildlife buffer between the mine and Jasper National Park (JNP). But this mitigation will only be successful as a real buffer if other

potential cumulative effects are minimized.

Restriction of off-highway vehicles (OHVs) played a large part in the Panel's acceptance in 2000 of mitigation of the cumulative effects of the mine. It is therefore in CRO's interest that OHV restrictions are put in place at an early stage of the mine development. In access management planning, it is important to distinguish between motorized and non-motorized recreation activity. Using the more general terms recreation users or recreation activity can lead to misunderstandings and false assumptions.

## Regional Planning

Now that the Mine is going ahead, the situation has significantly changed from the past few years and any access within the Mine area must be looked at as part of the regional



Map of the upper MacLeod River Valley. Grave Flats Road follows the valley up to the Cheviot mine site. (from the Cardinal River Haulroad Construction Assess Management Plan. The complete map is available as a .pdf on the website for Elk Valley Coal.)



plan, as recommended by the Panel and specified in the Mine Permit. We are not just dealing with some local access trails in the Mountain Park area. All major cumulative effects must now be taken into account, as discussed exhaustively at the EUB / CEAA Hearings in 2000, one of these being increased 'recreational' activity (primarily OHVs).

### Cumulative Effects of Increased or Displaced OHV Use

While the Mine will definitely have an impact on OHV access, OHVs are also one of the additional cumulative stresses. CRO's Stakeholder Access Management Plan (AMP) refers to the adverse effect of 'recreation', when it is really referring to OHVs. The AMP notes that any access plans must minimize adverse cumulative effects of OHVs. But then CRO says it will minimize the Mine's impacts on current (i.e. OHV) access, which is a different matter altogether.

It was recognized at the Hearings that because of the additional cumulative effects of OHVs on wildlife, mitigation for wildlife disturbance would require the displacement of OHV activity from the Mine area. There has been some success at the Luscar mine in the return of wildlife where OHVs are not permitted, and we should build on this experience.



*Off-highway vehicle damage in the Cardinal Divide area*

### Mitigation of OHV displacement

The current Mountain Park OHV Staging Area will be eliminated once the current proposed Mine developments start (or very soon thereafter). It is essential that serious discussion of relocation of the Staging Area be undertaken well before it is closed, according to the Mine Permit. Our main concern is that it must not be relocated to any area anywhere near the Whitehorse Wildland Park (including the Cardinal River Headwaters) where it could continue to impinge on the wildlife and ecological integrity of the Mine buffer area, WWP and JNP.

### Coal Branch Access Management Plan

The Coal Branch AMP in 1994 was discussed before there was any mention of the Mine, so no consideration was given to the consequences of access if such a major development took place. This significant change in the landscape clearly alters the actions required for wildlife management and maintenance of the integrity of the natural environment.

A review of the Coal Branch AMP in 1997 was cursorily carried out after the first Hearings, but before the Mine had been approved, so again there was no proper discussion of the Mine's impact. The Coal Branch AMP must be adjusted to take this major factor into account.

It should also be noted that, at the Hearings, the

considerable impact of the new haul road on wildlife movements with its 24 / 7 heavy truck traffic was not considered either, so to say that all previously designated OHV routes must be maintained is clearly inappropriate.

### Recommendations for Restricted OHV Access

The Hearing Panel's approval for the Mine was dependent on restricting OHV access to the Mine area, in order to mitigate the adverse effects on wildlife and allow for its eventual re-establishment. The Panel specifically mentioned that there should be a minimum 1000 m buffer between the Mine workings and WWP, and that there should be no new access points created. These stipulations were repeated in the Mine Permit.

Once current trails are eliminated, any replacement is a 'new access point.' As is well known, existing trails in the Mountain Park area are creating OHV access points to WWP, specifically along Drummond Ridge, beyond the old Prospect Mine, and up Thornton Ridge, not to mention beyond the Cardinal Headwaters Falls (CHF). We have an opportunity now to reverse these adverse effects. Although the Drummond Ridge

access point was identified in the Coal Branch AMP, the AMP did not take into consideration the mine activities. All OHV requirements in the area require major revision.

### Accessibility of Grave Flats Road for OHVs

There was a lot of concern expressed by many participants at the Hearings about the cumulative effects of increased OHV use. What was not anticipated was the opening of the Grave Flats road to OHVs or the extension of the season of access, as OHVs have greater mobility on roads in poor driving conditions (e.g. end of February this year). This has created an enormous increase in accessibility for OHVs, particularly to the CHF (not to mention the potential for more disturbance at the Cardinal Divide itself). This is in spite of strong recommendations by the Panel both in 1997, and in 2000, that the CHF should be given more protection and included in WWP. This change is particularly significant as it impacts the wildlife corridor through to Jasper National Park and increases the possibility for poaching, etc.

The Government and the County have ignored the Panel's recommendations and, in fact, have exacerbated the problem. The constant heavy traffic on the haul road (also unforeseen) will place an even greater stress on wildlife movement. As a result, it is even more crucial now that other mitigation recommendations regarding OHV restrictions in the Mine area are strengthened.



## OHV Requirements

CRO is under no obligation to provide for OHV access to its Mine area, as no mention of a need for OHV access was made during the Hearings, or as part of the conditions in their permits. In fact, the opposite was the case, as all the wildlife experts agreed that without OHV restrictions, the Mine's mitigation plans for wildlife would be ineffective. As CRO has said, apart from closures during active mining, for safety reasons, other access plans are not under their control.

As all OHV access west of Grave Flats road will be closed during haul road construction and the Cheviot Pit development, for at least the next twelve years, the Government should take the necessary steps to make this a permanent closure, under a modified AMP, to allow the optimum reclamation and rehabilitation of that area.

## Monitoring Effects of Access on Wildlife

Another of the conditions of the Mine Permit is to monitor the effects of its activities on wildlife movements and populations as well as public use. It is unfortunate that there are no reliable baseline figures, particularly for public access. Counts of OHV activity were reported at the 2000 Hearings, but not for anything west of the Grave Flats road at Mountain Park, so one cannot estimate the degree of displacement. On the other hand, counts for the CHF in 1998 were 90 vehicles over a 6-week period, and that was before the upgrading of the trail and the opening of the Grave Flats Road to OHVs.

I counted 35 OHVs in one hour coming up over the Cardinal Divide one weekend in August 2003, and those most likely came from the CHF. Other figures for campground registrations have also been criticized as under-reported, and other visitor surveys have been very brief snapshots at best. Much more systematic monitoring will be required if any valid conclusions are to be drawn. Forestry should initiate an electronic counting system on the CHF trail to clarify some of these points. The same applies for the wildlife figures, and particularly for the CHF area, for which little or no work has been done.

## Other Non-Motorized Recreation Users

CRO is holding this meeting to address public access management concerns, but it is noticeable that the large majority of stakeholders are OHV (or snowmobile) associated organizations or similar special interest groups. It may not be possible to get everyone round the same table, but CRO has an obligation to take NMR concerns into at least as much consideration as OHVs. A special group may have to be set up to coordinate the NMR groups (naturalists, eco-tourism operators, hikers, horse-packers and non-motorized hunters, etc.), so that their voices are given equal consideration.

## Other Aspects of the Proposed Access Management Planning

We understand the necessity for road closures during construction, but public information has to be readily available in a timely and consistent manner, as people often want to make holiday plans ahead of time. The website and toll-free phone number will be helpful in this regard. I suggest that weekly updates be posted by Wednesdays, so that spur-of-the-moment plans for the weekend can be confirmed.

We are also concerned about publicizing the suggestion of alternate access for foot/horse traffic to upper Prospect Ck from Drummond Ck. through WWP. This is an area which is high use summer grizzly bear habitat, and increased traffic should not be encouraged. If it is suggested, people will go! Wildlife corridor, yes, human access corridor, no!

While efforts to open the road to public access for the four long weekends is a worthy goal, will it in fact be open for regular vehicle traffic, not just OHVs, which can manage ruts and poor surfaces? If access is not possible for the general public, it should remain closed for everyone. We don't expect a finished, or even smooth surface, but it has to be passable for regular cars, otherwise a significant number of visitors will be excluded, particularly to the Cardinal Divide.

There are many routes and areas available for OHVs throughout the whole extensive Coal Branch region. OHV restrictions in one small but highly critical and sensitive area should not be viewed as significantly affecting their recreational pursuit, when there are overwhelming reasons for these restrictions.

While the impacts of OHV access may seem minor compared with the more major disturbance of the Mine, it is the cumulative effects that we must bear in mind. This could be the proverbial straw that broke the camel's back, particularly if the Mine's mitigation plans are compromised. I hope OHV users will realize that this small sacrifice will pay dividends for the future ecological integrity of the region and maintenance of its biological diversity.

In late May we found out that there will be an appeal hearing on the Alberta Environment approvals for the Cheviot haulroad. The Alberta Environment Appeals Board has granted Ben Gadd standing in these appeals. This is good news, but the decision to stop the haul road (and the mine?) or not is still a long way off. Construction of the haulroad is continuing. I am concerned that if everything does grind to a halt, and there is no mine, we will be left with the huge messy scar up the McLeod valley, and an uncontrolled OHV heaven in the Mountain Park area.

This could have a different but highly significant adverse and irreversible impact on the wildlife, vegetation and recreation of WWP and the surrounding area. As we only achieved the establishment of WWP as mitigation for the mine, I personally feel it is highly unlikely there would be any consideration of an expanded park without the mine. 🌿



# PLAINS BISON ASSESSED AS THREATENED

Cliff Wallis



In May 2004, COSEWIC (Committee on the Status of Endangered Wildlife in Canada) assessed the status of the Plains Bison, an animal that was a keystone species in Canada's grasslands. COSEWIC has assessed its status as "threatened", meaning Plains Bison is likely to become endangered if limiting factors are not reversed.

Marco Festa-Bianchet, chair of COSEWIC said that it was important to "redouble our efforts to protect species at risk and their habitats. The bison is not at imminent risk of extinction, but because of its biological characteristics and how many there are, if the situation continues as it is now, it could become endangered."

Plains bison were a major modifier of the grassland ecosystem and were essential to a myriad of other life forms and ecological processes. A little more than a hundred and fifty years ago, Plains Bison numbered in the tens of millions. Less than a thousand free-ranging Plains Bison occur today in

cropland. A few sizeable areas of native grassland would be suitable habitat but are currently used for other purposes including military training, livestock grazing and oil and gas development. Other problems include the presence of cattle genes in most domestic bison herds and the risk of contracting cattle-borne diseases.

COSEWIC's recommended designation has been forwarded to the federal Environment Minister who must determine if it will be added to the federal list of species at risk. Canada's Species At Risk Act comes into full effect in June and requires government officials to develop recovery plans for all wildlife listed as threatened or endangered.

If the Plains Bison is legally designated by the Government of Canada, it would free up government funds for restoration of Plains Bison habitat. It's a good signal that grasslands and the big species that once lived there are finally getting the attention they deserve.

Restoration of Plains Bison habitat will contribute to a larger conservation vision espoused by groups like AWA, which has been working with the Northern Plains Conservation Network (NPCN) to secure a large continuous area of wild grassland stretching through the Northern Great Plains of the United States and Canada from Nebraska to southeastern Alberta (see <http://npcn.net>).

The NPCN is committed to working with all interested parties, including indigenous peoples, ranchers and local communities to restore the full complement of wild species and ecosystem processes to this region. The NPCN believes large-scale prairie conservation has the potential to halt the economic decline of many prairie communities with a greater emphasis on landscape preservation, wildlife-related tourism and sustainable forms of agriculture.

The whole plains area is looking for new economic opportunities. There's room for people, for wildlife and for tourism. Plains Bison could be a big piece of the ecological and economic future of the Northern Great Plains. 🍁

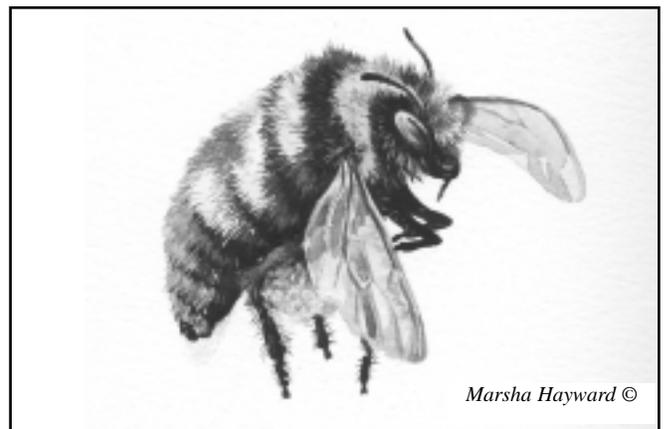


*Bison in Elk Island National Park*

Canada and only a handful occur in a semi-wild state in the grasslands.

The biggest wild herd of Plains Bison occurs at Pink Mountain in British Columbia, an area that is extralimital to its historic distribution. A herd at Prince Albert National Park has been slowly increasing in population. Captive herds are found in a small area of Waterton Lakes National Park and Elk Island National Park, the source population of the most genetically pure Plains Bison. The Nature Conservancy has just established a herd on thousands of acres of native grassland in southwestern Saskatchewan.

The greatest threat to Plains Bison is the scarcity of habitat since most of its former habitat has been converted to



*Marsha Hayward ©*



# WEYERHAEUSER POSTPONES LOGGING IN CARIBOU HABITAT

Mark Lowey, *Enviroline*



Weyerhaeuser Co. says it will postpone logging for five years on 82,000 hectares of environmentally sensitive woodland caribou habitat around Grande Prairie.

The company's plan dovetails with the federal Species at Risk Act that comes into effect in June. Woodland caribou are listed as a threatened species under both provincial and federal legislation. Weyerhaeuser says it decided it had to suspend timber harvesting in parts of the Red Rock, Prairie Creek, Daniel and Narraway ranges after its own \$1-million, five-year study showed the areas are heavily used as winter habitat by about 300 caribou.

The company hopes its action serves as an example of environmental stewardship in line with legislation and social trends, said Luigi Morgantini, Weyerhaeuser's wildlife biologist and forest ecologist coordinator. Delaying logging will provide time to gather more information on caribou needs and to implement a caribou-recovery plan in coordination with government and other stakeholders, he said.

Federal Environment Minister David Anderson applauded what he called Weyerhaeuser's responsible leadership. Alberta Sustainable Resources Development Minister Mike Cardinal also praised the plan, which he said is supported by the government.

Brian Bildson, co-chairman of the Greater Kakwa environmental group in Grande Prairie, said he's encouraged by Weyerhaeuser's plan and would like to see the oil and gas industry follow the company's example.

A draft report of the Alberta Woodland Caribou Recovery Plan, obtained by the Edmonton Journal, suggests establishing a moratorium on industrial activity within caribou ranges until a full assessment is made of the effects on herds. The report says that two herds, outside of Weyerhaeuser's forest management areas, are threatened with elimination if industrial activity continues.

Last year, Canadian Forest Products Limited (Canfor) and Alberta Newsprint Company both logged in the range used by the Little Smoky herd. The herd, north of Grande Cache, has dwindled to some 60 to 100 animals and experts say it is on the brink of extinction.

Dwight Weeks, a forest planner with Canfor, said the company kept new logging roads to a minimum, avoided areas heavily used by caribou, and reclaimed and closed roads off as soon as harvesting operations were done.

Greg Branton, a forest planner with Alberta Newsprint, said his firm took similar precautions and also left islands of uncut timber and other habitat for the animals within each cutblock. "The concept of just stopping everything, all

industrial activity on that land base, although it may appear appealing, would be extremely difficult," Branton said.

Talisman Energy Ltd., which has natural gas wells in caribou ranges and has contributed staff and funds to protect the habitat, doesn't intend to follow Weyerhaeuser's example, said Talisman spokesman Barry Nelson.

There are vast differences between the impacts of logging large tracts and restricted gas exploration, he said.

David Pryce, vice-president, Western Canada operations at the Canadian Association of Petroleum Producers, said the industry has contributed at least \$1.5 million of about \$4 million worth of research on the caribou issue. Companies try to use narrow, winter-only roads or helicopters in caribou habitat, and they zigzag roads through the bush to make it harder for predators and poachers to spot the caribou, Pryce said.

But Sid Tilbury, a trapper in Grande Cache, said companies are still building high-grade roads and well leases in caribou habitat and then not locking gates to control public access.

David Schindler, professor of ecology at University of Alberta, said U of A research—corroborated by aboriginal people who live in northeast Alberta—shows that wolves and coyotes use the "extensive network of seismic lines and trails" to penetrate the peatlands that are prime caribou habitat, greatly increasing caribou mortality. ❁

*(Reprinted with permission from Enviroline, May 17, 2004. AWA is calling for the postponement of industrial activities in core caribou habitat until herds recover to healthy numbers. We are also calling for permanent protection of caribou habitat in the wildlands of Little Smoky, Chinchaga and Kakwa.)*



Caribou



# WHITEGOAT TRAVERSE

Don Wales

Whenever I despair over the rapidly disappearing wilderness in Alberta I plan a backpacking trip into the Whitegoat Wilderness to renew my faith. Two friends and I completed a spectacular four day traverse of the Whitegoat last July. The route which cut through the heart of the White Goat was a circle trip beginning and ending at the Nigel Pass trailhead on the Banff Jasper Highway. We somewhat overestimated our fitness level for that early in the summer and underestimated our ages while planning for this trip but the weather was great and we had the time.

The Nigel Pass trail soon opens to sub-alpine meadows and the route essentially remains in the alpine for the next 4 days. Upon descending from Nigel Pass we entered the open valley of the Brazeau, stopped for a rest at Four Points campsite and forded the knee deep but icy Brazeau. Our wake-up call came when we began the long steep bushwhack up to an alpine valley to the west of Afternoon Peak.

We arrived in the late afternoon and contemplated taking up a more sedentary activity like macramé. A hot meal later, we recovered and after a brief thunder shower drove through, we spent the evening glassing the slopes of Afternoon Peak looking for the rare Mountain Caribou which I have seen here several times before.

The following day took us to the middle fork of McDonald Creek. From above it looks like a huge expanse of alpine meadow but when you are down in it, it becomes a dense tangle of low willow and deep gulleys making travel difficult and slow. In the past there have been large flocks of Bighorn sheep here but not today.

My last trip here was 10 years ago and I found it remarkable and somewhat heartening that the distinct trails I traveled then had almost completely overgrown. The trails had been kept open by horses but upon designation of the White Goat Wilderness this activity, along with motorized activity, was prohibited. Our second camp was at the lowest

lake in the Valley of Lakes.

The weather held the following day as we picked a route through the many alpine lakes of the rugged Valley of the Lakes. High on a ridge we spotted a marvelous stone monument, which, I expect, commemorates someone or something. Whoever crafted this remarkable structure had some skill and a lot of help to lift some of the larger rocks.

The upper valley becomes more rugged with dozens of alpine tarns fed by a hanging glacier that may be the largest in the White Goat. A band of Mountain Goats were spooked by our sudden arrival. The crux of this trip is a steep boulder and scree descent of a steep ridge down to Cline Pass but the spectacular views of the heavily glaciated peaks that make up this eastern boundary of Banff National Park are well worth the effort.

Cline Pass and the alpine meadows of upper Cataract creek are likely the most beautiful that I have seen anywhere. A glacier, which retreated ages ago, has left a scattering of erratics, which form welcome shelter from the winds that whistle through this valley. This is perhaps the most accessible and beautiful part of the White Goat. On the final day we first ascended Cataract Pass and then began the long steep descent to the valley bottom and eventually Nigel Pass to complete the circle.

We did not see a single person or even a footprint during the entire trip; in fact in 8 trips into this area over the last 20 or so years I have seen hikers only twice, two people off in the distance and a small group of hikers from Canadian Nature Tours lead by Brian Kregowsky. Brian had completed his master's thesis on the White Goat and it is from him that I learned of the infinite numbers of routes through this area. This is remarkable in these days of shrinking wilderness and is a testament to the value of designating more portions of our eastern slopes as benchmark Wilderness Areas like the White Goat.



*Cataract Creek, Whitegoat Wilderness*



*Stone monument, Whitegoat Wilderness*



# CORRIDORS FOR COUGARS: PROVIDING SAFE PASSAGE FOR THE SENTINELS OF WILDERNESS

Cheryl Chetkiewicz

A half-eaten mule deer is strewn in the driveway as I pull in following a drive in search of fresh cougar tracks. The grey hairs swirl around the yard like dandelion clocks as a dog moves away, grumbling and guilty, tail between its legs. The landlady's two dogs had been dragging home deer bits and pieces for weeks and pieces of blood-streaked bones frequently dotted the lawn. I had already told the landlady that a cougar was in the area and that she should keep her dogs inside in the evening.

The phone rings as I close the door. Andrew Gustavson, Fish and Wildlife Officer with Sustainable Resource Development in Blairmore, says that he just received a frightened call from a woman about a cougar in her backyard. I barely have time to get my telemetry gear together before there is a knock on my door. The woman was the landlady's daughter. She was pale and wide-eyed and visibly shaken as she exclaimed with fear, "I just saw a cougar! Right there in the yard! I am so scared of cougars!"

As I reassure her, my own reaction is one of excitement. How incredible to see one of North America's most solitary and secretive cats in your own back yard on a Wednesday afternoon. Welcome to the Crowsnest Pass in southwest Alberta! We both go outside.

As I suspected the signal from a collared female I have been following for this past year is strong and she is only metres away. She has two large kittens with her and they are probably watching the commotion with as much apprehension of the house's occupants, as they of her. The signal is the strongest in the direction of the woodpile behind the rusted-out farm machinery. I can almost see the twitching black tip of her tail. Crouched down, her feet like saucers are pressed under her chest, almost as in prayer, as gazes intently as we leave the balcony and head downstairs to take a closer look at the mule deer carcass in the driveway.

Andrew arrives and we follow the deer drag marks and cougar tracks to the landlady's greenhouse. A bed of grey and white hairs and assorted bones - the remainder of the mule deer - are incongruously nestled amid the rusting metal, rotting wood, and a dilapidated washing machine. The unmistakable musky scent of cats permeates the space. The radio signal is markedly quieter now, the cat must have moved on.

I had been monitoring this cougar for the past year as part of an ongoing study to document cougar habitat use and

movement patterns in order to define and locate wildlife corridors in the Crowsnest Pass, 200 km southwest of Calgary. The five communities comprising the municipality have been undergoing increasing suburban expansion and development as well as the expected twinning of Highway 3, a major southern transportation route.

The cougar female and her kittens were regular visitors amongst the homes and acreages north of Coleman where she made a living on the mule deer browsing in and around the community. She was captured in February of 2003. Using trained hound dogs and experienced houndsmen, we located her tracks in the snow one kilometre northwest of Highway 940. She did not have any kittens with her at that time. The dogs, normally used to hunt cougars in the area, were released to follow the tracks until the cat sought the safety of a tree.

As we secured the dogs, she appeared to fall asleep and looked entirely bored with the proceedings below. Fish and Wildlife Officers prepared a cocktail of immobilizing drugs based on her estimated weight and placed the mixture in a dart. The female was calm in the tree until the dart landed in the large muscle mass around her thigh. She became agitated and stood up, ears back and teeth bared, debating whether to jump out of the tree or not. The air is filled with the sounds of dogs yelping and bawling hysterically as we moved away to assess her behaviour and response to the drugs.

Ten minutes later, she is immobile and can be handled safely. She was lowered to the ground using a rope around her hind foot and placed on a tarpaulin where we could take standard body measurements and assess her body condition and response to the drugs. She was in excellent body condition and probably three or four years-old. Finally, we applied a Global Positioning System (GPS) collar, programmed to take her position every four hours. After an hour, she began to recover and moved away from the site.

She was monitored throughout the year, both on the ground and from the air, until her collar dropped off in February, 2004. During this time, she must have been bred by a male cougar and had two kittens. The kittens were growing well and the three were spotted on a number of occasions together throughout the year, often in people's backyards, and on the myriad of roads and cutlines that criss-crossed their home range.



Cheryl Chetkiewicz and a female cougar captured in Crowsnest Pass (inset - Female cougar captured in Crowsnest Pass)



She was one of seven cougars captured and collared during 2003 as part of the study initiated in 2001. Eleven cougars have been collared to date. The data obtained suggest a rich variety of individual movement behaviors and habitat use in the Valley. Their proximity to human development and the ability of some of the cats to cross the highway is particularly revealing for the generally nocturnal and solitary predator. For example, one large male captured in 2003 crossed Highway 3 on five occasions often between the early morning hours whereas a second female crossed in the middle of the afternoon!

At the other end of the behavioural continuum, a number of cats have never crossed the highway and their home ranges appear to be aligned with this major linear feature. Whether they would cross the highway if an ecological corridor were provided remains a mystery.

Ecological corridors are typically promoted in wildlife conservation to ensure movement across fractured and fragmented landscapes. They can be as simple as a riparian buffer alongside a stream or as unnatural as a culvert passing under a road. They are appealing as they provide one of the few solutions to fragmentation that managers can “do something about.”

Surely, if we know where animals are moving and what parts of the landscape are more suitable, we can use that information to help secure, restore, or maintain movements. However, methods for identifying corridors in real landscapes tend to involve looking at aerial photos and guessing where they could be or declaring de facto ecological corridors wherever habitat is left undisturbed by human land uses.

I hope to address this limitation by using cougar movement behavior to determine what features of the landscape best predict where corridors could be located given

current suburban development, industrial activities as well as the impact of the Lost Creek fire and the resulting network of new roads developed to salvage burnt timber and fire breaks.

It is hoped that these areas will be used by other species that share the Valley with the cougars. As cougars and other carnivores try and adapt to the changing landscape they find themselves in, it is hoped that this research will be used to inform municipalities and conservation organizations as they develop land-use plans and strategies.

There are obvious safety issues associated with having cougars and other carnivores in our midst. Perhaps most important is being aware of their presence and avoiding kills or areas where a kill may have been buried. Children and pets should be monitored when playing outside near wooded areas and if confronted, it is important to fight back and act aggressively.

But it is hard for me to envision an Alberta without cougars despite the potential safety risks associated with living with them. By not including them and other carnivores in the land-use decision making in communities that are thriving by providing the “wilderness experience”, we run the risk of losing one of the true sentinels of wildness. 🍁

*(Cheryl Chetkiewicz is a Ph.D. candidate at the University of Alberta, Department of Biological Sciences, where she is working on cougar and grizzly bear habitat selection and movement patterns in the Crownsnest Pass and the Canmore region of the Bow Valley. Cheryl is the recipient of an Alberta Ingenuity Fund Studentship and supported by the Wilburforce Foundation, the Wildlife Conservation Society, the Nature Conservancy of Canada and the Alberta Conservation Association.)*

---

## SPRING GRIZZLY HUNT OVER FOR THIS YEAR

Nigel Douglas, AWA outreach Coordinator



Alberta’s spring grizzly bear hunt finished on May 31, 2004. At the time of writing, no numbers were available for the numbers killed during the hunt. Even if the numbers killed are down from the 18 bears killed in the 2003 hunt, this is still too many!

Now that the hunt is out of the way, it is time for the government to listen to its own scientists, and to the 1500+ Albertans who have written to the Premier to say that enough is enough. It is now beyond doubt that there are not enough grizzly bears in the province to support a hunt. The grizzly must be designated a ‘threatened’ species, and the hunt suspended.

There is still considerable uncertainty as to how many grizzly bears there are in the province. Up until 2002, government staff used a figure of 1000 on provincial lands. In 2003, this figure was revised down to 500. Government

scientists are now working on a ‘best guess’ figure of less than 700 bears.

Even the overoptimistic population estimate of 1000 bears in 2002 was still sufficient to lead the government’s Endangered Species Sub Committee to recommend that the grizzly should be designated a ‘threatened’ species (which would lead to an automatic suspension of the hunt). Minister for Sustainable Resource Development, Mike Cardinal, has so far decided to ignore the advice of his scientists.

To some people, the issue of the spring grizzly bear hunt has unfortunately become one of hunters against environmentalists. AWA is opposed to the hunting of species that are threatened or endangered. Many hunters, who see themselves as ‘stewards’ of Alberta’s wild places, are opposed to the hunt. Those hunters who continue to argue that they should be allowed to continue to hunt Alberta’s struggling grizzly population, do themselves, and hunters in general, little credit.



# NORTHERN ARTIST AIMS TO TEACH PUBLIC ABOUT NATURE

Andy Marshall

The painting's foreground focus is a moose stepping onto a path. Your eye moves up and beyond, taking in the detail of the spruce and poplar that stretch into the distance. You can feel the expanse and pristine stillness.

"My biggest strength is painting nature—I've been doing it for as long as I remember," says the artist Marsha Hayward from her lakeside, forest-surrounded home, west of Cold Lake.

As with many of her realistic nature illustrations, her interest is not just depicting a particular animal, bird or plant as accurately as she can. She wants to fully convey the environment they inhabit and function in.

The interconnectedness of creatures with the plants, air and moisture around them is a fundamental theme in her art and conservation work. "The connections are absolutely crucial," says Hayward, 45.

When she paints or draws—and she estimates she's completed over a thousand works shown in galleries, as well as in private and corporate collections, sold or published as illustrations throughout western Canada—she hopes to pass on this lesson she fears an increasingly more urban society is forgetting.

Her art becomes more than aesthetically pleasing. It is a means of teaching people about the world around them. And while she may become passionately upset with the rising impact from the logging, heavy oil drilling and extensive Off Highway Vehicle riding in her region of Alberta, she realizes a confrontational approach won't always work. "The only hope is to educate people."

Born and raised in Hay River, part of what was then called the Northwest Territories, Hayward has felt close ties to the natural world throughout her life. Her graduation yearbook said that when she grew up she was going to be a tree.

She's run her own trap line and can skin and cut any animals she catches or hunts. She also lived in the Eastern Arctic at James Bay. "I've spent a lot of my life in very isolated areas," she says.

Her mother, who now lives with Hayward and her young son and daughter in their Cold Lake area home, was an Anglican church teacher. Her father was at various times a

fishing fleet skipper, a mechanic and cat skinner.

"Small communities in the north are very unique," says Hayward. She enjoyed close ties with the Slave aboriginal people and recalls learning to sing Rock of Ages in the Slave language on Sundays.

At 19, Hayward moved south to study at the Alberta College of Art & Design, where she majored in visual communication. After graduating in 1982, she became involved in commercial art, doing illustrations, signs and logo designing.

Following stays in the United States, particularly Idaho, and then Moose Jaw, Sask., Hayward returned to the Cold Lake region in 1994. Her grandparents had homesteaded there about 60 years earlier.

She moved into her current house in 1996, where she has a studio and gallery and where she built a greenhouse two years ago to raise, sell and boost awareness of native plants.

As if she didn't have enough on her plate, Hayward is enrolled in an Athabasca University Bachelor of Science program.

She is already looking ahead to pursuing her masters in environmental science, specializing in plants in riparian areas.

She says she wants to "learn the language" of science so that she can bridge the gap through books and illustrations between scientific knowledge and the general population's understandings of the natural world. Her ultimate goal is habitat conservation.

Although the area she lives in is a unique and richly diverse convergence of parkland, two kinds

of boreal forest and a chain of lakes, its values have been seriously compromised by industrial activity.

"Although someone from the city might think so, I don't consider this wilderness at all," she says. That doesn't stop her spending a lot of time out camping and hiking in the forests surrounding her place during the summer. She particularly enjoys venturing into northern Saskatchewan where there is less evidence of industrial intrusion. She also likes to go out in her flat-bottomed canoe and study the plants.

Another authentic aspect to her art is that she prefers to draw and paint on location. Detailed field sketches and



Marsha Hayward



Marash Hayward©



photographs aren't always enough to capture the details for botanical art, she says.

In recent years, her work has appeared in an Alberta trappers' training manual, in two Aboriginal books on myths and legends, an Environment Week poster, a calendar and a Federal Environmental Education Society of Alberta published booklet.

As part of her education campaign, she helped found the Beaver River Naturalist Society in 2001 and serves as secretary today. She organizes and guides field trips into her

region and is also a member of the Alberta Nature Plant Council.

Looking to the future, Hayward is pessimistic about the prospects for Alberta's wild lands. "Money prevails," she says.

Nevertheless, she is determined to continue her art and studies with the hope she can persuade at least some people to understand better their ties with the world around them. 🍁

## ASSOCIATION NEWS

### NEW SEASON FOR RECREATION MONITORING IN BIGHORN WILDLAND

Lara Smandych, AWA Conservation Biologist

This June a new field season for the Bighorn Wildland recreation and impact monitoring project begins. This year marks the second year of the program for volunteer stewards to learn about trail use and abuse and to help monitor conditions on specific trails. The project is providing important baseline data and learning opportunities. We expect



Monitoring trails in the Bighorn Wildland

that the results of this Alberta Wilderness Watch project will also include greater appreciation and awareness of sensitive wilderness environments, opportunities to learn about impacts and long-term problems caused by inappropriate human activity, and provide

volunteer opportunities to enjoy our wilderness and participate in its protection.

The results of the 2003 recreational monitoring indicated that damage by OHVs and horses is occurring within the Wildland area and illegal OHV use was prominent along the trails. Generally, the trails showed signs of severe rutting and deforestation as a result of recreation activity.

Although 64% of motorized activity was recorded on trails designated for OHVs, the 36% of illegal off trail and out of season use was significant. Trails not designated for OHV use

showed increases in the degree of structural and vegetation damage as a result of increased numbers of OHV passes. These results indicate that continued monitoring in the area is critical to the future management of the area.

2004 is sure to be an exciting season in the Bighorn Wildland. Adam Ford, a new addition to the AWA team has come on board for the summer to help out in our monthly trips. Adam's expertise and experience in the backcountry will undoubtedly prove a huge asset to the success of the project. We are always looking for experienced and enthusiastic volunteers to participate in these ongoing monitoring trips. Please contact AWA for more information on how to participate. 🍁

### CALGARY WILD

A new online program is being launched for Calgarians who think that their city is wild!

*Calgary Wild* is a new project by the Alberta Wilderness Association and Wildcanada.net to illustrate the important links between the City of Calgary and its surrounding wildlands and wildlife. It encourages citizens to be involved in low-impact wildland recreation opportunities and actively participate in decisions about local and regional wildlands.

If you would like to participate, visit [www.CalgaryWild.net](http://www.CalgaryWild.net). You can take a short survey about your favourite regional wildlands and explain why these wildlands are important to you.

In the fall, comments from the survey will be displayed on [www.CalgaryWild.net](http://www.CalgaryWild.net) and new action tools will be built into the web site that will allow you to get involved in decision-making processes for your favourite wildland areas.



# BOTANIZING IN THE JEWEL OF THE CROWN

Reg Ernst



The Castle area has been referred to as the “Jewel” in the Crown of the Continent Ecosystem. Although the jewel is damaged in some areas, much of it remains in relatively pristine condition. This summer, I will be continuing the Castle rare plant survey I initiated last year and I plan to focus my efforts on the more pristine areas.

Enroute to the pristine areas, however, there will be ample opportunity to view the changes wrought by a variety of high impact human activities. But back to the pristine: the focus for this season’s survey will be on the upper reaches of the South and West Castle drainages. As well, a late season visit to some of the Front Range canyons is planned.

Transportation to trailheads and base camps will be by truck or horse, but surveys will be done on foot. Alpine bowls

and ridges are my favourite places in the mountains and because they are also prime habitat for rare plants and less visited than more accessible areas in the Castle, much of the survey time will be spent there.

This will be a good opportunity to view what I call “the Good, the Bad, and the Ugly.” The good, is of course, the relatively pristine areas; the bad is the invasion of non-native plants resulting from decades of livestock grazing, logging, and other human activities; and the ugly is the scars left by clear-cut logging and off-road vehicle use.

Survey trips of between 1-4 days will be run from June to August 2004. Alberta Ecotrust and AWA are funding this project.

If you would like details on how to participate in this program, please contact Nigel Douglas, Outreach Coordinator at (403) 283 2025, awa@shaw.ca. 🍁



## STAFF PROFILE: ADAM FORD

I am employed with AWA as an Outreach Specialist for the summer of 2004, which means I assist Nigel Douglas in engaging the public in wilderness conservation education and action. This also includes contributing to AWA’s website, hosting displays, and helping to organize special events, like the Celebration of Wilderness Festival in June. I am also very excited to be working in the Bighorn Wildland with Lara Smandych on the recreation impact study.

Since graduating from the University of Victoria in 2002 I have bounced around odd jobs in Bragg Creek to working on community development projects in Malawi and Vanuatu, all the while volunteering with several conservation groups. I have enrolled at Carleton University this fall to study wildlife biology. Working in the conservation field has been my passion and continues to shape who I am.

It is with great excitement that I find myself in the AWA office for the summer—definitely a rewarding place to put down some roots. It is an exciting, dynamic work environment and I feel fortunate to learn from the passionate hearts and clear minds of the AWA team. I look forward to meeting you all this summer at our displays, in the office, at events or on the trout stream. 🍁



## STAFF PROFILE: JASON UNGER

Hi, my name is Jason Unger and I recently joined the AWA staff as their new Conservation Specialist. I am eager to dive head first into pursuit of better wilderness protection in hopes of preserving Alberta’s natural legacy.

I join AWA from a recent career in the private practice of law, where I was primarily a litigation lawyer with a focus on environmental law. I entered my legal career with a specialization in environmental law at Dalhousie University law school in Halifax and a degree in biology from the University of Winnipeg. I have had the fortune of assisting with research in the roosting habits of bats in both Costa Rica and in northern British Columbia.

Getting out to the mountains and lakes of our great country to hike, canoe, camp, and cross-country ski has fostered a great love for the great outdoors. In more urban pursuits, the sport of Ultimate attracts my attention.

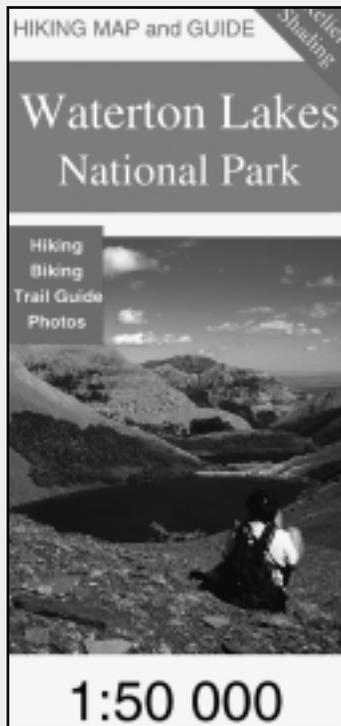
My keen penchant for wilderness is likely only outdone by my penchant for bad puns (unfortunately for my co-workers).

I “lichen” my passion for wilderness and the environment to Calgary’s current passion for the Flames. 🍁



## NEW HIKING MAP-GUIDE FOR WATERTON

Gem-Trek has released a new map and guide that covers all of Waterton Lakes National Park, adjacent



Akamina-Kishinena Provincial Park and the Goat Haunt area of Glacier National Park, Montana, accessible by tour boat from Waterton townsite.

The Waterton Lakes National Park map-guide is printed on two sides on high-quality paper and retails for \$7.95.

It is available at Map Town in downtown Calgary and will soon be available at Mountain Equipment Co-op, most Chapters and Alberta Motor Association locations and many outdoor

stores in Calgary. Also look for it at outdoor stores and bookstores in Waterton townsite.

## VOLUNTEER PROFILE: NANCY GRAY



I am a 26-year old student hailing from the Library and Information Technology Program at the Southern Alberta Institute of Technology and was a guest with AWA for three weeks. I joined the team in April to complete my education in a practicum environment under Shirley Bray in the Alberta Wilderness Resource Centre. Before coming to AWA I worked with various other companies, most recently doing cataloguing at St. Mary's College in Calgary. I found the information and ideals at AWA interesting and the work the team does exciting. I look forward to seeing everyone at future events and I hope the struggle for Alberta's wilderness is lessened by your actions. 🍁

## OPEN HOUSE HIKES PROGRAM

Contact: (403) 283-2025 for reservations.  
Visit our website for further details.  
Hikes not listed here are full.

Saturday June 26, 2004  
**Twin Rivers Heritage Rangeland**  
with Cheryl Bradley

Saturday July 10, 2004  
**Blue Hill Lookout**  
with Will Davies

Saturday August 21, 2004  
**Beehive Natural Area**  
with James Tweedie

Sunday September 26, 2004  
**Burstall Lakes (Kananaskis)**  
with Vivian Pharis

## Volunteer Opportunities

### DISPLAY VOLUNTEERS

Join our display team and help raise awareness about wilderness conservation in Alberta. AWA's display team travels to a range of different places - including farmers' markets, visitor centres and festivals - with a display, talking to people about the work we do. We always need extra volunteers who can help out to man a display. Training is provided, and new volunteers are usually teamed up with experienced regulars.

For more information, please call Nigel Douglas, AWA Outreach Coordinator, (403) 283 2025

Some venues booked so far include:

Saturday July 10

**Millarville Farmers' Market**

Sunday Aug 1, Monday Aug 2

**Canmore Folk Festival**

Saturday Sept 11

**Millarville Farmers' Market**

Wednesday afternoons, June - Sept

**Hillhurst/Sunnyside Farmers' Market, Calgary**

### BIGHORN WILDLAND OUTREACH

Throughout the summer, AWA volunteers will be spending time in the Bighorn Wildland talking to visitors about the importance of and the need to protect this spectacular area. We are looking for people who can spend a day, or half a day, to travel to areas such as Siffleur Falls and the Hummingbird staging area. For more information, please call Lara Smandych at (403) 283 2025.



# SUPPORT ALBERTA WILDERNESS

*"Our quality of life, our health, and a healthy economy are totally dependent on Earth's biological diversity. We cannot replicate natural ecosystems. Protected areas are internationally recognized as the most efficient way to maintain biological diversity"*

- **Richard Thomas**

**Alberta Wilderness Association (AWA)** is dedicated to protecting wildlands, wildlife and wild waters throughout Alberta. Your valued contribution will assist with all areas of AWA's work. We offer the following categories for your donation. The Provincial Office of AWA hosts wall plaques recognizing donors in the "Associate" or greater category. Please give generously to the conservation work of AWA.

**Alberta Wilderness and Wildlife Trust** - an endowment fund established with The Calgary Foundation to support the long-term sustainability of the Alberta Wilderness Association. For further details, please contact our Calgary office (403) 283-2025.

**Membership** - Lifetime AWA Membership     \$25 Single     \$30 Family

Alberta Wilderness Association	
<input type="checkbox"/> Wilderness Circle	\$2500 +
<input type="checkbox"/> Philanthropist	\$1000
<input type="checkbox"/> Sustainer	\$500
<input type="checkbox"/> Associate	\$100
<input type="checkbox"/> Supporter	\$50
<input type="checkbox"/> Other _____	



Cheque     Visa     M/C    Amount \$ \_\_\_\_\_

Card #: \_\_\_\_\_    Expiry Date: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City/Prov. \_\_\_\_\_    Postal Code: \_\_\_\_\_

Phone (home): \_\_\_\_\_    Phone (work): \_\_\_\_\_

E-mail: \_\_\_\_\_    Signature \_\_\_\_\_

**I wish to join the Monthly Donor Programme!**

I would like to donate \$ \_\_\_\_\_ monthly. Here is my credit card number OR my voided cheque for bank withdrawal. *I understand that monthly donations are processed on the 1<sup>st</sup> of the month (minimum of \$5 per month).*

*AWA respects the privacy of members. Lists are not sold or traded in any manner. AWA is a federally registered charity and functions through member and donor support. Tax-deductible donations may be made to the Association at: Box 6398 Station D, Calgary, AB T2P 2E1. Telephone (403) 283-2025 Fax (403) 270-2743 E-mail awa@shaw.ca Website http://www.AlbertaWilderness.ca*

**Sunday June 27, 2004**

## Landscapes of the Red Deer River: A Guided Bus Tour

Join us for an interpretive bus trip to the Drumheller region of the Red Deer River. Setting off from Calgary, we will be traveling through the Red Deer River Valley, looking at some of the spectacular natural history of this region. There will be special presentations from local naturalists, canoe guides and snake experts.

**\$30 AWA members**

**\$40 non-members**

**Price includes a picnic lunch and refreshments.**



Editorial Board:  
Shirley Bray, Ph.D  
Peter Sherrington, Ph.D  
Andy Marshall  
Joyce Hildebrand  
Graphic Designer:  
Ball Creative  
Printer: Maranda Printing  
Web Host: qbiz.ca

Please direct questions and comments to:  
Shirley Bray  
Phone: 270-2736  
Fax: 270-2743  
awa.wrc@shaw.ca  
www.AlbertaWilderness.ca

Editorial Disclaimer: The opinions expressed by the various authors in this publication are not necessarily those of the editors or the AWA. The editors reserve the right to edit, reject or withdraw articles submitted.

**Moving?  
Please let us know!**

Return Undeliverable Canadian Addresses to:



**Alberta Wilderness Association**  
Box 6398, Station D  
Calgary, Alberta T2P 2E1  
awa@shaw.ca



Canadian Publications Mail Product Sales Agreement  
No. 485535 • ISSN# 40065626

