



A WILD LANDS ADVOCATE

THE ALBERTA WILDERNESS ASSOCIATION JOURNAL



A water-filled slough in spring in Rumsey - R.P. Pharis

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WELCOME TO THE COLOURFUL NEW WORLD OF WILD LANDS ADVOCATE

Alberta Wilderness Association is very pleased to present you, our readers, with an exciting new format for *Wild Lands Advocate*. Thanks to the unprecedented sponsorship we have received from Topline Printing in Calgary, we are able offer a visual image and quality in our popular news journal that matches the outstanding content. Full colour photos will allow us to take our stories to a new level. Topline is using a high grade of recycled paper and will reduce wastage of paper with the redesign and new process.

The *Advocate* is a culmination of all of the activities of staff, board members, volunteers and supporters at large. We also use the resources of our Alberta Wilderness Resource Centre and its image bank extensively. Each issue takes a tremendous amount of work, significant coordination and pure passion.

Much of what you read is first hand knowledge and eye witness accounts and provides you with an independent viewpoint that is rarely found in other media. AWA is able to speak freely about wild lands, wild waters and wildlife in this province through this journal. We do not accept any advertising in the *Wild Lands Advocate*.

Many of you who receive *Wild Lands Advocate* provide AWA with donations on a regular basis. Thank you! Your support is vital. Although a subscription is provided to our lifetime members without further cost, I am asking those of you who have not contributed recently to AWA to consider making a donation to support *Wild Lands Advocate*.

Help us continue to keep this journal outstanding in every way. All donations are tax-deductible. You can donate on-line at our web site or by mail, the address is provided within the journal.

AWA's programs and publications seek to inform, inspire and engage Albertans in becoming a significant force in wilderness and wildlife conservation. On this the 40th anniversary year of AWA's founding, I am thrilled to see this issue of *Wild Lands Advocate*. I hope you are too. Let us know what you think.

Yours in Conservation,

Christyann Olson
AWA Executive Director

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COAL BED METHANE COMES TO RUMSEY BALANCING ACT NEEDS A BIRD'S EYE VIEW

By Dr. Shirley Bray

This is the second of a two-part series on coal bed methane development in the Rumsey Natural Area in the Central Parkland Natural Subregion of Alberta.

On a cool June day in 2003 Dorothy Dickson guided an Alberta Wilderness Association (AWA) sponsored trip into the Rumsey Natural Area. The normally water filled sloughs rich with waterfowl in spring were now grassy and filled with wildflowers after successive years of drought. Dickson has been a guide to Rumsey for many years and the hikes to this distinctive region are popular. The gently rolling hills, left by the last glaciation, are covered by a mosaic of lush fescue grassland, aspen woodland, shrubland and ephemeral wetlands. We didn't think much of the road we drove in on, a gravel road that took us into the heart of the Natural Area. After all, many of Alberta's wild areas have roads traversing them.

It was only later, while reading through the history of the last 30 years that the significance of this road became clear. There are other roads within Rumsey, but this particular road, built by industry with the blessing of government, marked a turning point for conservationists who believed a balance could be struck between oil and gas development and grassland conservation. The history of Rumsey could be read as a history of betrayal by government, but perhaps it was simply a case of "innocent fraud."

In his recent book, *The Economics of Innocent Fraud*, John Kenneth Galbraith asks what we think makes past civilizations great. Was it their Gross Domestic Product (GDP)? Was it paying off their debt? No. It was their artistic, literary, and scientific accomplishments. To this list we can now add conservation accomplishments. Yet today, he says, economic and larger social advance is measured by the GDP – the increase in the total production of goods and

services. Corporate power ordains that social success is more material goods. "Here is the measure of human achievement. Negative effects – pollution, destruction of the landscape, the unprotected health of the citizenry, the threat of military action and death – do not count as such."



A lone hiker climbs a hill in Rumsey

S.Br

What will be remembered from Alberta? Will conservation of the ecological integrity of an internationally significant grassland be among our accomplishments? Or will Rumsey become just another cash cow for industry with a degraded landscape. It may be telling that in a recent government news release the arts community was justifying its existence by proving how much it contributed to Alberta's economy. The case is similar for protected areas.

Galbraith concluded that there is a divide between "approved belief" or "conventional wisdom" and reality.

"Reality," he says, "is more obscured by social or habitual preference and personal or group pecuniary advantage in economics and politics than in any other subject...Out of the pecuniary and political pressures and fashions of the time, economics and larger economic and political systems cultivate their own version of the truth. This last has no necessary relation to reality." Of this "innocent fraud," he says, "no one is especially at fault; what is convenient to believe is greatly to be preferred."

There is a belief that we must have a balance in Rumsey between development and conservation and that such a balance is achievable if we simply follow certain guidelines. But who will define balance and determine when it has been achieved? If we accept that we must hold the government ultimately accountable for Rumsey, and not the oil and gas companies that are merely going where they have been allowed, we need to examine its role in Rumsey in the last three decades. We might be better prepared to determine the reality and chart a future that will truly preserve this magnificent grassland.

Cheryl Bradley, a professional biologist, first visited Rumsey in 1976 and co-authored a study of the area for the Alberta Parks Division. In that year, Parks recognized the high environmental significance of Rumsey. A "reservation for conservation purposes" on all public lands within the Rumsey block was granted in 1980. In 1979, the northern part of the block was nominated for an ecological reserve, a designation made in 1990.

The Rumsey Wildland, as it is sometimes called, is an oasis of still wild public land within the heavily developed privatized landscape around it. Farming, ranching and energy development are major land uses that encroach on the two protected areas. The Ecological Reserve in the northern part and the Natural Area to the south span the transition between the

Central Parkland and Northern Fescue Grassland Sub-regions. It is one of the few remaining large blocks with more than 75% of native prairie vegetation remaining.

In spite of the recognition by government of Rumsey's special ecological significance, resource extraction was a primary goal. In a 1985 letter to AWA, Don Sparrow, Associate Minister of Energy and Natural Resources, wrote that while

can work together in developing and implementing innovative approaches to the management of this very special wildland - the last of its kind in Alberta."

The approved guidelines included no permanent roads and revegetation with native species. They were implemented for the drilling of about 30 exploratory wells between 1984 and 1987. It appeared that the tripartite deal between industry, government and

impacts, over which, admitted one Parks employee, they had very little control. "Only time can demonstrate whether this was a "good" decision or not," they said.

Reflecting on the Poco road Bradley wrote (*Parks and Wilderness*, Spring 1990), "Any assumption that Alberta Recreation and Parks would look after the preservation interests was obviously naive....In hindsight, I think those of us who care about the



C. Wallis

Aerial view of the rolling hills of Rumsey

the Department had long recognized the Rumsey Block's beauty and unique qualities "[our] main objective is to keep the area in as natural a condition as possible while utilizing it primarily for: grazing, oil and gas exploration and development and undeveloped recreation."

At the time, Bradley believed that resource extraction could be compatible with conservation. As president of AWA, she spearheaded the development of a task force headed by Bruce Runge of Dome Petroleum to begin the development of a set of guidelines for oil and gas activity in the area.

"Traditional methods of dealing with oil and gas activity do not appear to be responsive to the special care which is required in managing this area, despite a reservation by parks on the lands which allows special conditions to be applied," wrote Bradley (*WLA* Winter/Spring 1983). "The AWA hopes that government agencies, the oil and gas industry, grazing lessees, and conservation groups

NGOs was working well.

On a field trip to Rumsey in 1987, Bradley was shocked to see a freshly built permanent gravel road slicing through the heart of the area. Known as the "Poco road", because it was built by Poco Petroleum, it ran 10 kms from the west boundary to an oil well near the eastern boundary, allowing access to about a dozen gas wells and compressor stations by side roads. No one in the NGO community had heard anything about this road. It was built without any public consultation. The Lands Division subsequently told AWA they were not required to contact public interest organizations, even if the groups had shown a long-standing, well-documented interest in the area. It was a real blow to those who had a personal commitment to Rumsey.

Although the road created a greater single impact at the moment it was meant to minimize surface disturbance in the long term. Alberta Recreation and Parks told AWA that the objective of the guidelines is the mitigation, not the prevention, of

Rumsey Wildland should have had a stronger vision for the area and worked for complete elimination of oil and gas activity when it began in earnest in the 80's....If anything has been gained by allowing oil and gas activity to proceed, it is that we can now say with certainty that oil and gas potential in the area is low compared to conservation potential, and oil and gas exploration and development activity should be phased out as quickly as possible. We now know for sure that it is of greater benefit for all of us to designate protection for the Rumsey Wildland than to allow its death by a thousand small cuts to continue."

Fourteen years later, the advent of coal bed methane (CBM) development, with its increased footprint, can only seem like a death knell to the area. Bradley still firmly believes that oil and gas activity should be phased out sooner than later. "I thought [phasing out] was already occurring!" she told Public Lands.

CBM has gone from an "experimental" activity to being viewed

as “another form of natural gas, and subject to existing commitments,” according to a recent letter from Sustainable Resource Development (SRD) to AWA. In response to a request from AWA to be informed of future applications in the area, the Energy and Utilities Board (EUB) wrote, “There is no requirement in the RID [Regionally Integrated Decision] for the EUB to provide specific notification to the AWA.”

“AWA believes that CBM

different story.

RIDs are described as “action-oriented mini-planning exercises undertaken entirely within the region to address current resource management issues.” Rumsey’s RID was developed in response to concerns raised by AWA and others after the Poco road incident. It is more comprehensive than the earlier guidelines and not quite as elaborate as a complete Integrated Resource Plan.

The biggest decision facing the

after the draft RID was roundly criticized, consisting of 30 participants including government departments (except Energy), energy and grazing lease holders, municipalities, Cattle Commission and conservation organizations reached a general agreement that the area must have better protection, including that current oil and gas wells should be depleted as quickly as possible and all extraction activity be phased out.

But the phase-out option was



C. Bradley



S. Bray

The road built by Poco Petroleum in 1987

A conventional gas well in rumsey

development is contrary to the purpose and intent of the Natural Area designation and that it will significantly undermine the conservation values of Rumsey.” says Jason Unger, AWA conservation specialist. “We are asking government to suspend CBM development in the area, to designate it as a Heritage Rangeland and to revise the management plan to reflect its status as a protected area.”

SRD’s response to AWA is that “management criteria and direction, as established in the Regionally Integrated Decision [RID] of 1993, recognized oil and gas activity as an acceptable land use in the Rumsey Natural Area, subject to stringent guidelines...The present designation will continue with the RID serving as the management directive as it contains provisions that ensure it is kept current and relevant.”

Barry Cole, a land manager with SRD who sat on the RID Committee, believes the RID “remains an effective management directive.” He could not resist pointing out that AWA participated in developing the RID, implying that AWA agreed with the final product. But history tells a

RID committee in 1990 was whether or not to adopt measures which would officially define an end to oil and gas activity. Eight conservation groups (including AWA) and grazing lessees wanted an end to oil and gas activity. Over a third of petroleum companies operating in the block were ready and willing to phase out their activity, provided current commitments were met, because of marginal economics. Three energy companies, Poco Petroleum, North Canadian Oils and Renaissance Energy, stated their intention of concluding their activities in the Block. 85% of the 58 wells drilling in the block since 1951 were capped, suspended or abandoned. It was calculated that Rumsey only contained about 0.01% of Alberta’s oil reserves and less than 0.00001% of its gas reserves. The ERCB, which concluded that the Block had only moderate future potential for oil and gas, were willing to initiate a coordinated plan for companies operating in the area to conclude production of proven resources while minimizing environmental impacts.

Finally, a roundtable, convened

opposed at senior civil service levels within the Department of Energy, and the final RID, released in 1993, allowed oil and gas activity in perpetuity.

“When I received the new RID I said it was cynical and misleading,” says Dickson, who was AWA’s representative in Rumsey for over a decade. She noted that it was, theoretically, an improved version of the draft RID. It had pages of new environmentally correct statements about the Block’s “unique natural qualities,” its international significance and the need to ensure that “ecological integrity is the underlying principle upon which management decisions will be based.”

“But, in practice,” she wrote, “there is nothing new or improved in the regulations and guidelines that would accomplish this principle.”

The RID emphasizes minimizing surface disturbance and ensuring reclamation with the objective of re-establishing native species on disturbed areas. Cole says that “remediation of any impacts [due to oil and gas] to an acceptable level is a primary objective.” The standard for reclaiming prairie and

parkland landscapes in Alberta is “to promote the re-establishment of sound ecological function and the eventual restoration of the original range of variability in biological structure and diversity.”

“There are many pious references to reclamation,” commented Dickson, “but no acknowledgement that, in spite of years of trying, we do not know how to reclaim fescue grassland.” Over a decade later we still don’t know. Invasive species mark old well

use” is never defined. In addition to reclamation, SRD claims it achieves its management goal for the natural area by prohibiting surface access in some areas and restricting access to existing approved routes.

Although the RID specifies no new surface access for rights sold after January 1, 1991, all the access routes constructed prior to this can be used and even upgraded, including those that have already been reclaimed, and provision is made for construction of

that the ecological health of Rumsey is not in jeopardy, because they haven’t done the monitoring to show if we’re maintaining ecological integrity.” For example, she says, there has been no mapping of the fescue grasslands or where the weedy species are. “Without this information we have no way of knowing if we are meeting the management goal of the RID.”

She points out that invasion of non-native species is the most critical thing, but she doesn’t see Public Lands



Hikers explore a treed area

Dorothy Dickson and Klaus Jericho during one of Dorothy’s guided hikes through Rumsey, June 2003

sites and the native rough fescue from recommended seed mixes has failed to become established.

Public Lands hopes to reduce surface disturbances to a size where natural regeneration is possible. But continued vehicle access and cattle represent major sources of introduction of invasive species. Studies show that invasive species can be found within a wide corridor, up to 100 metres in one case, on either side of an access route. From there they can spread further, especially during drought.

This information is well-known to government land managers, yet SRD simply said in their letter to AWA that “disturbances are reclaimed to natural vegetation.” AWA was disappointed with this easy standard response. The impression is that there is a belief that if a guideline is written in a management plan then it must be an accurate account of what is on the ground.

The goal of the RID is “to preserve and protect the Rumsey Aspen parkland ecosystem, while allowing for responsible use of its resources.” Dickson notes that “responsible

new roads. Dickson points out this means “that the current maze of roads can be perpetuated for ever as ‘existing routes’ and any number of wells can be drilled beside them.”

“The bottom line,” says Unger, “is that the RID is a policy document that does not have legal status.”

The RID has failed on many levels. It recognizes the impacts of oil and gas activity and that the effects of these impacts on the ecology of the area have not been fully determined. It promised, but has not delivered, a biophysical inventory, a cumulative effects review, and monitoring of vegetation.

“We are meeting half of the objectives of allowing development, but not the other half,” says Bradley.

Cole believes that “the introduction of minimum disturbance sites, reduced surface impacts, promotion of the natural recovery concept, as well as “no go” areas continues to be an effective approach to cumulative effects.”

But Bradley disagrees. “They’ve started doing some range health assessment, but they can’t show me

taking the steps necessary to deal with the issue. Roads have been kept open and traffic continues to be allowed. Models, like ALCES, can be used to track the rate of invasion and roll it out over time and see what the conclusion is.

Bradley believes the RID is outdated. Since the writing of the RID there has been an inventory of rough fescue grassland sites in the Central parkland and Northern Fescue Grassland natural subregions that has revealed even more dramatically the high ecological significance of remaining native plains rough fescue grasslands,” Bradley wrote in a letter to Public Lands. “Most areas of plains rough fescue grassland remaining are severely compromised by invasion of non-native plant species. The potential for invasion is exacerbated by surface disturbance and access which introduces aggressive invaders.

“A cumulative effects analysis (CEA) must be conducted before any further development goes ahead,” she concludes. The EUB’s Information Letter 2002-1, *Principles for Minimizing Surface Disturbance in*

Native Prairie and Parkland Areas, makes a provision for CEA in the principle of reducing overall effects. So far, Trident Exploration Corp., the first company to drill a CBM well in Rumsey, has not committed to doing a CEA. Bradley suspects Trident doesn't want to set a precedent for industry.

"We should all be working on a plan to ensure there is not new fragmentation of rough fescue grasslands, old disturbances are restored to native condition, and that we actively manage to rid the area of invasive non-native species," she says.

Only one annual report was ever done, and no five-year reports. Promised "ongoing and meaningful public involvement" has fallen short. Although Cole says the RID can be modified to deal with changing conditions, that could mean change in favour of better access, for example, for gas development. One plan assessment was completed in 2001, but the Central Region Resource Management Committee (RRMC) determined, without public consultation, that no major review was necessary, apparently because they thought oil and gas activities were decreasing and there would be fewer overall impacts. Yet the potential for CBM development must have been known by industry at the time.

The Prairie Conservation Forum is also exploring the idea of developing a more up-to-date management plan. The Forum, a coalition of organizations interested in the conservation of biological diversity in Alberta's prairie and parkland, is non-advocacy in nature, but will relay correspondence on issue if a majority feels it is warranted. The Alberta Native Plant Council, represented by Bradley, and AWA are members. A letter to three government departments in Fall 2004 outlined concerns about the increased footprint of CBM, which was not considered when the RID was written. Not surprisingly, members representing the National Energy Board, the Natural Resources Conservation Board and the EUB abstained from signing on to this letter.

One of the arguments of conservation groups for a new plan is that the RID was developed in 1993 prior to the designation of Rumsey as a

Natural Area in 1996. This was to be a 'holding' designation, until the passing of Bill 24 in 2000 that incorporated the new category of Heritage Rangeland into protected areas legislation.

"We felt that putting the Rumsey Natural Area into this category was definitely a good thing as it would prohibit mechanized recreation and



C. Bradley

Coal Bed Methane well in Rumsey by Trident showing damage from digging pipeline, June 2003

would have stricter regulation of energy extraction than in the RID, apparently with the aim of eventually phasing it out," says Dickson. "We were assured that Rumsey Natural Area was near the top of the list for inclusion in the new category. Every time we inquired, we were told it was still on the list and they were working on it but that it was "more complicated" than some of the others that have already been designated. We assume the 'complication' has been the applications for CBM drilling and whether that could be counted as an existing disposition."

Community Development Minister Gary Mar has no plans for making Rumsey a Heritage Rangeland. He says his department will focus on six other sites awaiting Heritage Rangeland designation. How ironic then that during a debate in March 2003 regarding making rough fescue a provincial grass emblem then Community Development Minister Gene Zwozdesky referred to the

"Rumsey heritage rangeland, which is adjacent to the Rumsey ecological reserve...."

Raising Rumsey to a higher protected designation is not an end in itself. There are other issues regarding having enough staff to properly manage the areas. Bradley and others were concerned to find a deep bladed trail, two vehicles wide, traversing the Twin River Heritage Rangeland last year. Although meant to forestall fire, it represented a highway for invasive species, which could already be found well off the trail. Public Lands apparently did not know about it until after it was made.

In 1997, a year after Rumsey was designated a Natural Area, and in the middle of the government's Special Places program, Dickson got an anonymous phone call saying that new oil and gas rights were to be sold in the Rumsey Block. Then Environment Minister Ty Lund asserted that carefully managed development was acceptable in protected areas and that Rumsey would be the model for Special Places, not the exception. And Premier Klein backed him up by saying it was all in the spirit of sustainable development.

Then Energy Minister Steve West, who once described ecological reserves as "protected areas that haven't been hurt yet," said, "It wasn't our intention ever to sterilize that large a piece of the province from our natural resources." He believed, in spite of evidence to the contrary, that a couple of years after reclamation, no one would know industry had ever been there.

"Mineral rights have been consistently posted following the designation of Rumsey as a natural area in 1996," says Unger. "Areas of land that had no legal obligations linked to them or had dispositions that subsequently expired, have been re-posted following the designation, contrary to the apparent purpose of an Alberta Energy Information Letter (IL) 2003-25 and undermining the protective designation."

IL2003-25 states that mineral commitments that existed prior to the establishment of a protected area will be honoured and that applications for new surface dispositions for existing surface or subsurface commitments will also be honoured. Existing

commitments cannot be used as a basis to access new subsurface rights in a protected area because these new rights came into effect after the protected area was established. The government is including CBM as part of existing commitments.

In a January letter to AWA, Mar says that the Alberta Government is committed to phasing out industrial activity in protected areas. "Interdepartmental discussions between senior officials are currently occurring on the issue of coal bed methane development in Rumsey Natural Area," he wrote. "My staff are working to ensure that natural gas activities, including coal bed methane, are eventually phased out of this internationally significant protected area." Since a CBM well could last 25 to 40 years (and some suggest it might even be renewable) it could be a very long time until Rumsey is free of oil and gas.

Reflecting on the history of Rumsey, Dickson says she realized that "the story of Rumsey was just an example of the history of so many places that need protection - government initiatives, promises etc. that raised hopes, that we took seriously and worked to respond to and improve - only to find so many hidden flaws or walls of political intransigence, that all came to nought or became unacceptable policy in spite of our efforts."

A common word running through Rumsey's story is the word 'balance.' Cole believes that achieving the RID goal will achieve balance. Trident believes that through collaboration we can find a balance between legal rights and environmental concerns. Premier Klein believes that we have achieved "balanced decisions" in Rumsey that provide for existing land use commitments and for the long term ecological preservation. But who decided that the boundaries of Rumsey defined where we should be looking for balance?

If you take a bird's eye view, Rumsey is just a small island in a sea of development. It constitutes only 0.003% of the Central Parkland and Northern Fescue Grassland Sub-Regions combined. About 12% of the Parkland has native vegetation left, very little of it in large blocks that are



A bladed trail winds through the Twin River Heritage Rangeland

S. Bray

essential for protection of ecosystems. Only 3% of the Northern Fescue has more than 75% of native vegetation remaining.

"We're long past any balance when dealing with a natural region that is as heavily impacted as the aspen parkland, and Rumsey is the largest remaining block at 80 sections," says Bradley. "Balance is all related to scope and scale," she explains. "When you're talking balance in terms of ecological protection you have to talk at the scale of the natural subregion or region. That's the scale we use for Alberta's biodiversity framework."

Suppose we had originally set out goals of protecting 50% of each of these regions and allowing industrial development in the other half. It's not as crazy as it sounds. That's exactly what the Canadian Boreal Initiative is proposing for the Boreal Natural Region today.

Archie Landals, of the Parks and Protected Areas Division, says the Government freely acknowledges that it has not met conservation targets for

Grassland and Parkland regions. At trilateral meetings of the Commission on Environmental Cooperation grasslands were recognized as the most threatened ecosystem in North America. Why do we continue putting one of our last and supposedly protected large grasslands at risk?

Today Rumsey stands at a crossroads and the choices we make today are critical to its ecological future. Bradley believes the case can be made that the ecosystem in Rumsey is at risk already and that introducing more threat, in the form of CBM, for example, will continue to reduce our ability to maintain the ecological integrity of the area.

"This is not a time for lack of vision or faint hearts interested in sticking with the status quo, which in practice means continued ecological compromise of the area," says Bradley. "It is not good enough."

When it comes to Rumsey, it is well past time for a reality check.



TRAGIC ACCIDENT CLAIMS LIVES OF WILDLIFE DISEASE EXPERTS

By Shirley Bray

The wildlife research community is mourning the loss of two internationally known wildlife disease experts from Wyoming. Elizabeth "Beth" Williams, the world's foremost expert on chronic wasting disease (CWD), and her husband, Edwin "Tom" Thorne, a leading authority on brucellosis, died December 29, 2004 when their pickup ran into a jackknifed semi-trailer at night on an icy road in northern Colorado. They were returning home to Laramie, Wyoming after a holiday trip to the Caribbean.

The death of Tom and Beth is a great loss for their families, scientists, friends, and colleagues all over the world. Not only were they well-liked and well-respected, but they both carried a vast store of experience and expertise that they shared freely with their colleagues and others. They were experts on wildlife diseases such as CWD, a fatal brain-wasting disease of deer and elk, and brucellosis, which causes infertility in cattle, bison, and other animals.

"It's just a terrible tragedy," said John Baughman, International Association of Fish and Wildlife Agencies (IAFWA) executive vice president and former Wyoming Game and Fish director. "Tom and Beth were two of the great professionals in wildlife medicine. They will both be missed dearly in the wildlife community."

"The loss of these dear friends and colleagues is enormous at both the personal and professional levels," wrote Torsten Morner, president, and Ed Addison, executive manager, of the Wildlife Disease Association in a letter to its members. "For many, the personal and professional relationships with Tom and Beth were one and the same because once we had met them and worked with them ...they instantly became our friends....They both shared

that wonderful blend of being extremely committed to and serious about their work while simultaneously displaying a sense of respect and caring for others and a sense of humour that made the world around them uplifting and positive."

Beth was nationally and internationally known for her work on wildlife diseases, particularly chronic wasting disease and brucellosis, and for restoration of the endangered black-footed ferret and Wyoming toad. At the time of her death she was editor of the international *Journal of Wildlife Diseases*.

She received her doctorate in veterinary pathology from Colorado State University. It was here that she first diagnosed CWD during a late-night laboratory session as a graduate student in 1977. No one knew at the time why deer at a university research facility acted disoriented and eventually wasted away. Trying to sort through all the possibilities was a real mystery, Beth said in a *High Country News* article. It was at the university that she met Tom Thorne, and they married in 1980.

Williams went on to become an international authority on CWD. In 1983 she pursued her career at the University of Wyoming and the Wyoming State Veterinary Laboratory.

In recent years, she watched as the general lack of interest at the time of her discovery of CWD turned into a media frenzy after the mad cow outbreak in England caused people to question whether CWD was a similar disease and could be transmitted from venison to hunters or others. In a September 2003 article in *Nature*, she and Mike Miller, a veterinarian for the Colorado Division of Wildlife, published an article warning that CWD could spread rapidly among herd in the wild, especially where animal density is high.

One of her recent projects was to

determine whether contamination in the environment, such as the feces and urine of infected animals, is an important factor in the disease's spread. Williams believed that explaining the amount of uncertainty in science is an essential part of her job. "There's a real need for scientists to get [their results] out of the lab," she said, "so that the public can understand that things are never black and white."

"It's a huge loss to our progress in understanding [CWD]," said Miller. "I don't see anyone stepping in" to fill the knowledge gap left by Williams' death. "Beth was the foundation of everything that we have learned over the years about chronic wasting disease." Miller described her as a superb team player.

"Beth's name is forever united with the discovery of CWD," said Dr. Val Geist, a professor emeritus of the University of Calgary who remains active in wildlife conservation and on the game farming issue. "She provided the first correct diagnosis of the disease and rose due to excellent scientific work to become the foremost authority on it. The high regard she is held in is not only due to the excellence of her scientific work, but also her level-headed approach to it in the many public meetings she attended. Beth was a voice of calm reason."

"Combined, Tom and Beth represented a remarkable husband-and-wife team dealing with wildlife health and disease issues in the western United States," says the University of Wyoming web site. She earned several honours, including the Wildlife Disease Association's Distinguished Service Award in 1996, the Wyoming Game Warden Association's award for outstanding assistance to wildlife law enforcement, and a couple of outstanding teacher awards.

Dr. Donal O'Toole, director of the Wyoming State Veterinary Laboratory,

went to graduate school with Beth and was a close friend of the couple. “Even then she was a star.... There are no shortages of smart and clever people, but there is always a big shortage of wise people – and Beth was the wisest person in the department and the university recognized that.” At the memorial service he noted her limitless energy and commitment to Wyoming wildlife, her skill as a veterinary pathologist, and her love of working with students.

Tom received his doctorate in veterinary medicine at Oklahoma State University. He joined the Wyoming Game and Fish Department in 1968 and spent 36 years with the Department supervising wildlife research projects and providing on-site veterinary help with wildlife trappings and wildlife relocation projects throughout Wyoming. In 1999 he became the division chief and then, in his last year, acting Game and Fish director until his retirement in 2003.

He served as vice president of the Wildlife Disease Association, chair of the advisory council for the American Association of Wildlife Veterinarians, and chair of the US Health Association’s wildlife diseases committee. He was an expert on brucellosis, CWD, and other wildlife diseases, and he co-authored the book *Diseases of Wildlife in Wyoming*, as well as many articles in veterinary and wildlife journals.

He was described as the cornerstone of the Greater Yellowstone Interagency Brucellosis Committee, which aims to eliminate the disease, which is not native to wildlife. “Tom and Beth were highly respected colleagues, wonderful friends, and great ambassadors for the veterinary profession,” said Tom Linfield, chair of the GYIBC executive committee.

After his retirement, Tom joined the Game and Fish Department as a wildlife disease consultant. Both he and Beth were leaders in the efforts to save the black-footed ferret, thought to be extinct until 18 of them were discovered in Wyoming in the early 1980s. Both recognized that distemper was killing the animals. The animals that were saved became the base population for ferrets released in various western states to rebuild their numbers. Tom

led the veterinary team that solved the mystery of successfully breeding black-footed ferrets in captivity. In 1988 he was honoured for his efforts as Conservationist of the Year by the Wyoming Wildlife Federation.

At the memorial service, Donal O’Toole spoke of Tom’s reverence for wildlife and his focus on “getting the job done.” As an example, he described how Tom convinced his neighbours to call him to remove rattlesnakes rather than kill the snakes themselves. He then took the snakes to his and Beth’s property. Tom had a reputation, he said, of never placing his personal interests above his respect for wildlife. A number of people emphasized Tom’s special ability to listen to peoples’ views and to bring people with conflicting views together and have them listen to each other. Wyoming Governor Dave Freudenthal remarked on Tom’s ability to make complex scientific problems simple enough for politicians to understand them and the political ramifications of the issues.

Rich Guenzel, a Game and Fish wildlife biologist in the Laramie office, praised Tom for his generosity in giving credit to other people and his professionalism. “He was one of those forces behind the scene that no matter how tense an issue might be he was always calm and in control.”

Dr. Tom Moore, a Game and Fish laboratory supervisor on the University of Wyoming campus, spoke about Tom’s love of animals. “He actually put himself in the mind of the animal, and from that, his enthusiasm would rub off on the people around him. He would say, ‘Let’s consider this or could we do this.’ Whatever he said brought people off their high horse down to a level they could communicate. You never took yourself seriously around Tom and working with him was a lot of fun.”

“It’s hard for me to find the words to describe how tragic Tom’s and Beth’s deaths are to the Game and Fish family,” said Terry Cleveland, Wyoming Game and Fish director, who worked with Tom for more than 30 years. “Professionally, it’s an international loss to the wildlife field and a heartbreaking tragedy personally.” At the memorial service he spoke of Tom’s many accomplishments including his very large role in the decision to not

allow game farming in Wyoming, and of Beth’s huge contributions toward a better understanding of Wyoming wildlife and its management.

“In the storm of highly charged issues, Beth and Tom offered an oasis of reason,” said Darrel Rowledge, president of the Alliance for Public Wildlife. “Beyond their many professional accomplishments what struck me most was their personal and scientific integrity. What a potent mix it was: a relentless dedication to wildlife and conservation – tempered with careful science and endless personal grace. They took time from absurdly busy schedules to patiently listen, teach, and empower. Their encouragement meant the world to me, and their advice remains unassailable: it’s not enough to demand sound science at the microscope.... It must be the basis of our policy.”

“I regarded Tom Thorne and Beth Williams as more than mere colleagues, but as friends,” said Geist. “We were engaged early on in stemming the advance of game ranching, a development that threatens the very existence of North America’s system of wildlife conservation. Both recognized that threat early. I still recall Tom testifying in court as the State of Wyoming was attacked over its decision to disallow this destructive industry. We won in court repeatedly thanks to the diligent professional work of Wyoming biologists and veterinarians.

“I shall miss Tom’s friendly disarming attitude in discussions, his understanding of wildlife diseases that I drew on for my insights. In my mind’s eye both are alive, as they shall always be as long as I live.”

A memorial fund for Tom and Beth has been established in the Department of Veterinary Sciences at the University of Wyoming.

Sources include:

“Auto Accident Claims Lives of Renowned Husband/Wife Wildlife Veterinarians Tom Thorne and Elizabeth Williams.” 14 Jan. 2005. www.outdoorCentral.com. Hartman, Todd. 2004. “Crash kills CWD expert.” *Rocky Mountain News* 31 Dec. 2004. Macalady, Alison. 2004. “Uncommon Westerners: Veterinarian Beth Williams.” *High Country News* Feb. 2004. University of Wyoming Web site: www.uwyo.edu. Wildlife Disease Association Web site: www.wildlifedisease.org.



IS IT TIME TO WRITE OFF “DOOMED” CARIBOU HERDS?

By Lara Smandych, AWA Conservation Biologist

Despite ongoing discussions between ENGOs and representatives of Suncor and ConocoPhillips, the multi-million dollar gas pipeline through the range of the endangered Little Smoky caribou herd will not be re-routed but rather is well on its way to completion.

The current status of the pipeline was made known in a recent phone meeting between representatives of both companies and ENGOs. The clearing of the right of way has been completed and the companies expect the entire project, including cleanup, to be completed by the end of April. Given the numerous requests made by ENGO groups and individuals for pipeline re-routing and deferral of activity, the companies have ignored these concerns and, in essence, have failed to do what is best for the remaining approximately 80 individual caribou of the Little Smoky herd.

How will this “business as usual” attitude impact the remaining herds? The evidence suggests that, for many herds, their future in Alberta appears grim. Dr. Stan Boutin, a professor in the Department of Biological Sciences at the University of Alberta, stated in a recent talk that he feels that many of Alberta’s herds, and specifically the Little Smoky, are doomed.

Given this view, should we write off some of our caribou herds? Would our attention and money be better spent on those herds identified as having a greater likelihood of survival? Before we answer that question I believe we need to understand why the caribou reached their current endangered status. Once we have a better understanding of these factors, we will have a better chance of determining our options for increasing their chances for survival.

We know that many factors affect the survival of caribou. Included among these are the following: (1) Fragmentation, loss and alteration of habitat from resource development. For

the Little Smoky herd, “best practices” by industry are not enough and may come too late. New industrial activity must be reduced and even eliminated from these areas. (2) Predation. Due to changing a landscape, caribou have become more susceptible to predation, particularly from wolves. Caribou may suffer because they are not able



Caribou



Little Smoky

to maintain the spatial/territorial separation from prey species, which may protect caribou from predators.

Long-term habitat requirements within caribou ranges must be maintained and even improved. But attempts to improve wildlife habitat will be futile if all other interests are not integrated and managed accordingly. In the case of the Little Smoky herd, although Suncor and ConocoPhillips have committed over one million dollars to the restoration of existing seismic disturbance in

the herd’s range, their efforts may fail because of competing industrial interests in the same area.

To improve caribou management in Alberta, many companies are quick to point to government for a solution. Albertans must expect companies, as operators on the land, to take on the obligation and responsibility of ensuring that the integrity of our landscapes and wildlife are maintained. These companies should strive to constantly raise their standards of practice. However, government must have a strong policy commitment to protect the caribou and its habitat and recovery.

A good starting initiative would be for the Alberta government to implement the Alberta Woodland Caribou Recovery Plan. AWA supports the two goals of the Plan: 1) achieve self-sustaining woodland caribou herds and maintain the distribution of caribou in Alberta, and 2) ensure that the long-term habitat requirements for woodland caribou are met within Alberta’s caribou ranges. In order to achieve these goals, however, strong actions and commitments will be required, particularly for those herds identified as “at immediate risk of extirpation.”

Furthermore, AWA and other ENGOs believe there a need for the formation of a provincial umbrella coordinating group for caribou with the full cooperation of relevant Alberta government agencies. To be effective, this committed multi-stakeholder group would provide strong guidelines and targets that would result in the maintenance and recovery of Alberta’s caribou herds. AWA and other ENGO partners will be meeting with the assistant deputy minister of Fish and Wildlife, Mr. Ken Ambrock, later this month to discuss these ideas.



LONG-TERM VISION NEEDED FOR PUBLIC LANDS

By Shirley Bray and Jason Unger

A lively discussion took place during a meeting that AWA held in October to discuss the development of a public lands policy for Alberta. A small group of about 20 people were brought together to identify issues, concerns, and ideas. Although diverse and sometimes contradictory views were expressed, participants were interested and concerned enough to continue the roundtable through an e-mail forum.

The first goal is to define public lands and to develop a long-term vision. The second goal will be to develop principles for public land management. Although some people think that visions and principles are

An Alberta government “Public Land Information Letter,” Sept. 1997, refers to managing public lands for the benefits of all Albertans, both now and in the future; establishing and sustaining an optimum balance of use, conservation, and development of resources; stewardship; maintaining or enhancing the quantity and quality of public land resources; and long-term sustainability.

The Alberta Round Table on Environment and Economy (1991) envisioned ensuring the quality

The vision of the Alberta Forest Conservation Strategy (AFCS, 1997), which was developed by consensus, was that forest areas will continue to meet our needs for ecosystem services and that Albertans have opportunities to be informed and to participate in decisions made affecting the forest. Its goal was to maintain and enhance, for the long term, the extent and health of forest ecosystems in Alberta for the sake of all living things locally, provincially, nationally, and globally, while providing environmental, economic, recreational, social, and cultural benefits for present and future generations.

The Alberta Forest Legacy, which was the government’s worked-



Different visions of public grasslands



simply motherhood statements that don’t mean much and don’t reflect subsequent action (the government was noted as being a good example of an issuer of these sorts of visions and principles), others believe that they are necessary guides. They can make people think about what they and future generations want and need.

A common vision of public land, if attainable, may form a fundamental building block on which Alberta public land can be effectively and responsibly managed. We recall Yogi Berra’s famous quote, “If you don’t know where you are going, you might wind up someplace else.”

In formulating a vision statement, we looked at previous visions for aspects of public lands in Alberta that could generate inspiration or caution.

of water, air, and land; preserving biological diversity; Albertans living within natural carrying capacity; a healthy economy, where market forces and the regulatory system work for sustainable development; a healthy environment for rural and urban Albertans; Albertans receiving the education and information; and Albertans being responsible global citizens and stewards.

The Prairie Conservation Action Plan (2001–2005) vision for the prairies is that native prairie, with its plants and animals, survive, that its intrinsic values are conserved for current and future generations. For Alberta the vision is to conserve the biological diversity of native prairie and parkland ecosystems in Alberta for the benefit of current and future generations.

over version of the AFCS, speaks of maintaining access to diverse economic, cultural, and recreational benefits that are provided by and dependent upon sustainable forest ecosystems; considering all resource values, measurable and perceived, when making management decisions; and sustainability.

British Columbia describes its land and resource management planning system (LRMP) as “a process for defining a future vision for public land and resources. LRMPs develop broad strategic objectives with an aim to balance the well-being of communities, economies and ecosystems. The final LRMP reflects sustainable solutions for the benefit of present and future generations.”

So a possible vision statement

S. Bray

S. Bray

C. Olson

might be: “All Albertans are responsible for the management and stewardship of Alberta’s Public Lands. Alberta’s Public Lands will be managed in a manner that preserves the ecological integrity of those lands for future generations, thereby guaranteeing the social and economic values upon which Albertans depend.”

The following is an excerpt from an article by Kyle DeBeer, Northwest Regional Coordinator for 2020 Democrats in Wyoming, entitled *Toward a Long-Term Vision of Public Land Stewardship*. The full article can be found at www.2020democrats.org.

“Wyoming is an instructive example of the debate over public land use in the United States. In a state where nearly half of its total area is managed by the federal government, everyone holds a strong opinion about

the manner in which public lands should be managed. The great difficulty faced is reconciling the conflicting positions of different stakeholders.

“Too often, public land management decisions have been made to satisfy short-term needs without a long-term vision of the use of public lands. One unfortunate example of such shortsighted land-use policy is the Bush Administration’s emphasis on resource extraction and energy development without mitigating the resulting degradation of public lands. ...

“Public land management must fully consider the impacts of development and mitigate them. It is time to manage our lands with a vision of what they should be like in the year 2020 and further beyond. Without this long-term vision, public lands may be irreparably harmed before

the next generation of Americans can enjoy them. This means that the federal policy must be responsive to our need to consume resources – coal, oil, natural gas, and others – while preserving the significant stretches of open space that are so central to the identity of the intermountain West.

“It will certainly require that the government provide incentives to encourage the efficient use of natural resources and the development of alternative energy sources. And it will require each of us to articulate a vision that seeks to reconcile the conflicting positions of different stakeholders.”

If you have a vision for Alberta’s public lands that you would like to share with us, please contact us.

THE LITTLE BOW GETS BIGGER – ALBERTA’S NEWEST RIVER DAM

By Dr. Stewart B. Rood, Glenda M. Samuelson and Sarah G. Bigelow

The Little Bow/Highwood Rivers Project includes Alberta’s newest dam and provides the second major water project to follow the Oldman River Dam. The controversy surrounding the Oldman Dam attracted national attention that peaked in about 1990, and legal consideration up to the level of the Supreme Court over federal versus provincial jurisdiction and the nature and need for environmental impact analysis. A key outcome was that while environmental matters are substantially under provincial jurisdiction, rivers involve fisheries, navigation, and First Nations issues that invoke federal responsibility. As a consequence, any major water management project in Canada requires both provincial and federal review.

At the time of the Oldman Dam Project, three other proposed river projects in Alberta had received considerable support and even partial approval. Of these, the Pine Coulee Project was the first to advance, probably partly because it was expected to be the least controversial and complex. That project involved the

construction of a small dam on Willow Creek, about an hour south of Calgary. A canal from that dam diverts water to be stored in a larger, offstream reservoir in Pine Coulee. That water would then be available for release back into Willow Creek during the late summer when flows are naturally low but irrigation demands are high.

Pine Coulee was generally a dry prairie coulee and reservoir flooding did not inundate riparian woodlands or an extensive stream channel. Consequently the anticipated environmental impacts were judged as considerably less severe than for other recent dams in Alberta such as the Oldman Dam or the Dickson Dam on the Red Deer River. A joint provincial-federal environmental review for the Pine Coulee Project proceeded in 1994 with little public attention and the project was developed from 1996 to 1999 with limited controversy. Following implementation there has been some groundwater leakage from the reservoir, but the project has otherwise proceeded relatively smoothly.

The Little Bow Project followed, and as anticipated, its environmental assessment was more complex and controversial. The project represented the expansion of an existing water management system that is primarily intended for irrigation in the warm and fertile agricultural region north of Lethbridge. There are two diversions from the Highwood River, which is part of the Bow River Basin, into the Little Bow River of the Oldman River system. One canal diverts water through Women’s Coulee into Mosquito Creek, a tributary of the Little Bow, and the second and larger diversion, the Little Bow Canal, occurs within the Town of High River. The Little Bow Project involved a tripling of the capacity of the Little Bow Canal and the construction of a dam on the Little Bow River between Nanton and Champion, an hour southeast of Calgary.

The Little Bow and Highwood Rivers are naturally connected and have a particularly interesting past. The Little Bow valley is vastly larger than would be produced by the current flow regime and was probably scoured by



An aerial view of the Pine Coulee Reservoir near Claesholm, Alberta, which was completed in 1999. This is an 'offstream reservoir', so designated since the reservoir is filled with water that is diverted off stream from Willow Creek. While offstream reservoirs typically have fewer environmental impacts than onstream reservoirs they are incapable of trapping high springtime flows.

much larger flows thousands of years ago when the Highwood River flowed south rather than north at the Town of High River. At some point in time and probably associated with glacial events, the Highwood River shifted northward and now flows into the Bow River downstream of Calgary. After being abandoned by the Highwood River water, the Little Bow River would only have naturally flowed due to rapid snow-melt, following heavy rains, or with flood overflows from the Highwood River. Without a mountain source, the Little Bow would naturally have dried up during most summers and the First Nations name, Naked River, reflects the lack of cottonwood groves, in contrast to the abundant woodlands along the adjacent perennial streams, the Highwood River and Willow Creek.

Over the twentieth century, the flows of the Little Bow River were dramatically altered by human activities. The construction of a raised railway line and municipal diking in High River reduced the flood overflow contributions from the Highwood River. Conversely, the Little Bow Canal diverts flow from the Highwood into the Little Bow. As a result of the artificial year-round flow regime, true willows (*Salix* species) and riparian cottonwoods (balsam poplars) have become established at some sites, wolf willow (*Elaeagnus*) has expanded, and cattails have proliferated. Thus, the flow regime and current river environment of the Little Bow

River are products of artificial water management, and by many measures it is a richer river ecosystem today than would have existed naturally a century ago.

With continued irrigation expansion along the Little Bow River, there has been pressure for increased water diversion from the Highwood. However, withdrawal of more water during the summer months when irrigation demands are greatest would impose stress on the Highwood River ecosystem. With reduced flows, water temperatures would rise and dissolved oxygen could fall, degrading conditions for aquatic organisms and particularly for trout, a cold water sport fish. The Highwood River provides the primary spawning tributary for the world-renowned "blue-ribbon" rainbow and brown trout fishery of the Bow River, and concern for this fishery prompted special consideration for sufficient flows along the Highwood River.

As an apparent solution, the expansion of the Little Bow Canal and the installation of another storage reservoir on the Little Bow River would permit increased diversion during the spring, when high flows occur along the Highwood River. The new reservoir on the Little Bow could subsequently be managed to release water downstream during the irrigation season, without the need for further diversion from the Highwood River during the hot and dry summer. Despite considerable economic cost, this project received

favourable responses from a number of groups, including cautious support from a fisheries coalition, as technical analyses concluded that the new flow regime would provide a minor benefit for the rainbow trout and mountain whitefish populations of the Highwood and Bow Rivers.

As a major water management project, the Little Bow Project underwent considerable study with respect to technical aspects, environmental impacts, and economic considerations. These were presented to a joint provincial-federal environmental review panel involving the Natural Resources Conservation Board (NRCB) and the Canadian Environmental Assessment Agency (CEAA). In 1998 the joint panel concluded that the project would provide a net benefit to Alberta and thus recommended approval of the project infrastructure. However, the panel considered that the project was insufficient with respect to the overall water budget and in a peculiar twist, recommended the implementation of additional water storage. Thus, the joint review panel effectively recommended approval of another water storage project, even though it hadn't been proposed.

Project construction began in 2000 but the controversy continued and additional complexities emerged. The focus of the environmental impact assessment had often been on the charismatic fishery of the Highwood and Bow Rivers, but the project would



S. Rood

An aerial view of the 'onstream' Twin Valley Dam and reservoir along the Little Bow River, which was completed in 2004. The reservoir floods reaches (segments) of the Little Bow and Mosquito Creek valleys (hence the name) but is largely filled with water which is diverted from the Highwood River in the town of High River, Alberta.



S. Rood

Both the Pine Coulee and Little Bow projects included fish screens, metal structures intended to prevent fish passage into the diversion canals. This photograph shows the fish screen in the Little Bow Canal in the Town of High River that traps large and even fairly small fish, which are then flushed back into the Highwood River

have much greater environmental impact on the Little Bow River. A technical analysis of river impacts predicted rather minor channel erosion and change along the Little Bow River, but local landowners were skeptical of this conclusion. As the project unfolded and project engineers visited the river during different flow periods, they recognized that the residents' concerns were well founded. Thus, further environmental impact analysis was undertaken to reconsider the impacts of the tripling of flow along the upper Little Bow River.

The renewed analyses recognized that the Little Bow River would increase in physical size, and particularly channel width, in response to the increased flow. With a larger channel, there were concerns that the future river could actually require higher summer flows to maintain water quality and a healthy aquatic environment along the Little Bow. With these concerns, the fisheries coalition expressed further concerns about the overall water budget. At a follow-up hearing of the joint provincial-federal review panel in 2001, an interesting reversal occurred relative to water development advocacy. Alberta Transportation, the project's proponent, argued that the supplemental water storage sites recommended by the joint review panel would be extremely costly and thus of questionable net value to the public. Conversely, a lawyer for the fisheries coalition argued that additional storage was needed and thus another reservoir or reservoir expansion was essential.

Meanwhile, a move was underway to provide a novel solution to the water budget problem, the use of "non-storage options." Thus, rather than increasing storage (supply), the preference of some experts was to reduce demand. While this might not fully resolve the potential problem, it could diminish the scale and thus economic and environmental costs of additional water storage. Regrettably, the non-storage option received limited initial support, but it did emphasize the need to more broadly consider Alberta's growing water problems.

In 2004 the three major components of the Little Bow Project – (1) the new dam, (2) the expanded

Little Bow Canal, and (3) an expanded canal to supplement nearby Clear Lake – are now complete and fully operational. The Little Bow dam has been named the Twin Valley Dam to recognize the two inflowing tributaries, the Little Bow River and Mosquito Creek. The reservoir created by the dam is virtually full. With tripled flows along the upper reach of the Little Bow River, changes to the channel have begun and there will probably be progressive change over more than a decade as the system responds to the new flow regime.

However, with respect to environmental impacts, it is not simply the presence or absence of a dam, but often even more importantly the pattern of dam operation that is critical. In the case of the Little Bow Project, the operations plan was the final component of the initial proposal and the component that the joint provincial-federal review board deferred ruling on due to their concerns about the water budget. While construction was underway, a joint team from Alberta Environment and Alberta Transportation developed a sequence of management scenarios that were assessed with respect to watershed demands and supplies over a sequence of years with a natural range of wet and dry cycles. Scenarios were evaluated relative to the delivery of water for irrigation and municipal needs and the maintenance of instream flows for environmental conservation. The modeling indicated that the further storage recommended by the joint panel would not solve the rare water challenges, and a set of drought operational rules were proposed for those occasional years.

To complement the government efforts, a Public Advisory Committee (PAC) was established in 2001 consisting of volunteer representatives of municipalities, industry, and local landowner and interest groups. In an encouraging display of public participation and advocacy, the PAC achieved consensus support for the refined operations plan and also provided an insightful cluster of recommendations to Alberta Environment. These recommendations included aspects such as the need to monitor the system and provide

flexibility for adaptive management in which the operations plan would be refined in response to the actual impacts. The PAC, along with Alberta Environment and Alberta Transportation, held public open houses in October 2004, and following subsequent feedback, the three groups will likely provide common recommendations to the joint provincial-federal review board. With this range of consideration and support, approval seems likely.

Thus, the project is approaching its completion and with the supplemental flows, there will likely even be some environmental benefits

involved deliberation by a joint panel representing federal and provincial agencies and concerns. While there were a number of frictions along the way, the recent consensus-building by the PAC provides an encouraging model of community involvement.

While the Little Bow Project was underway, the province has been evaluating two other river dam proposals. The Meridian Dam would have been built along the South Saskatchewan River downstream of Medicine Hat, near the Alberta-Saskatchewan border (hence Meridian). A pre-feasibility study concluded that the project would be uneconomical

impacts on the physical environment and on aquatic and riparian ecosystems, it may well be the human dimension that provides the greatest challenge, and opportunity.

For further information about the Pine Coulee and Little Bow projects, the Natural Resources Conservation Board Web site provides the joint federal-provincial reviews: <http://www.nrcb.gov.ab.ca/web/nrp/reviews.cfm>.

(Dr. Stewart B. Rood, Glenda M. Samuelson and Sarah G. Bigelow are from the Environmental Science Program at the University of Lethbridge. You can write to Dr. Rood at rood@uleth.ca.)



A view of the riparian or streamside zone along the Little Bow River near the Town of High River during the initial test flow in 2003. With the rippling of inflow originating from the Highwood River, low-level flooding occurs along the Little Bow River. This inundation should lead to mortality of some riparian grasses while flood-tolerant willows should thrive. Over time, the scour due to swift flows and the loss of plant cover should result in channel widening. Consequently the future, expanded channel would convey the increase flow without over-bank flooding. This process will produce a rare opportunity for the establishment of cottonwoods (balsam poplars) and other riparian plants along the Little Bow River. - Photo Credit S. Rood

along the Little Bow River. These should include the prospects for more riparian willows and cottonwoods, as well as potential improvements to water quality, which has been a perpetual problem along this small prairie river. Aspects related to the fish populations along the Highwood and Bow Rivers are still unfolding, but it is anticipated that the new project will have minor impact. The project has cost the provincial taxpayers more than \$100 million; the government and joint review panel consider this as an investment in the regional economy, as it will provide additional water for irrigation and regional municipalities.

In terms of policy and process, the Little Bow Project has provided a dramatic contrast to the Oldman River Dam. The project underwent a reasonably comprehensive environmental impact analysis before it was approved, and that analysis

even without considering environmental costs and thus, the proposal has been shelved. Another pre-feasibility study is underway for a proposed dam on the Milk River, the third project that was under consideration at the time of the Oldman Dam Project. The Milk River Dam pre-feasibility study has been considerably delayed, probably in response to additional complexities and information requirements. Recently, the Milk River gained international attention due to aspects involving water sharing between Alberta and Montana, and these aspects will further complicate any future projects.

With changes in senior personnel in the Alberta government, the fate of the Milk River proposal is uncertain. If it is advanced, the experience from the Little Bow Project will be valuable. And finally, as demonstrated by the Oldman Dam and the Little Bow Project, while river dams have profound



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RECKONING HIDDEN COSTS OF RIVER DIVERSIONS

By Jason Unger and Shirley Bray

Red Deer River near Drumheller



N. Doughits

Society is losing \$2.4 billion per year because dams and water diversions from the Colorado River have drastically reduced the water flow and productivity of the river ecosystem, says Karl Flessa, a University of Arizona (UA) researcher.

By using the monetary values other researchers have applied to services provided to society by various ecosystems, Flessa compared the dollar value of ecosystem services provided by the Colorado River delta region before all the dams and water diversions to those provided by the current land-use types. The difference between the two figures is the benefit lost to society: in this case, 6 cents per 100 gallons of water diverted, or \$2.4 billion annually.

“In most years, the Colorado River no longer reaches the sea,” says Flessa, a professor in the geosciences department. The decline in freshwater influx has increased the salinity of the water in the estuary and has profoundly changed the circulation in the upper Gulf of California. Upstream dams and diversion projects have also trapped and diverted much of the Colorado’s sediment load.

“The day-to-day functioning of ecosystems provides benefits,” said Flessa in an interview with Mari Jensen of *UA News*. “What I’ve done is estimate what’s the value to society if you just leave the water in the river. Human populations are losing that value when the water is diverted for other purposes.

“The original ecosystem services provided are worth more than the ecosystem services we now get from the transformed landscapes,” he said. Benefits that the river originally provided included natural flood control, natural wastewater treatment, and

nursery areas for fish and other marine organisms.

“The price we pay for Colorado River water should include the cost of lost ecosystem services,” Flessa continued. “Included in the price of water should be mitigation costs for the environmental consequences of diverting water.” He added, “It’s a crass, philistine thing to do, but we can put a dollar value on the impact.” In evaluating the environmental impact of diverting water, Flessa emphasizes that it is a matter of the value of water to humans, not of the value of water to fish or plants.

While his analysis is limited to the environmental impacts of the changes, he argues that everyone should pay more for their water. That money could be used to help restore the river ecosystem and some of the lost ecosystem services.

“The delta is not dead,” he and his colleagues wrote, “but its partial restoration depends on international collaboration in conservation science, river management, and resource utilization.”

The Colorado River lesson is one that needs to be applied to the Red Deer River in Alberta well before decisions are finalized on water management. In his article in the October 2004 issue of *Wild Lands Advocate*, Heinz Unger wrote about the current management plans that are being prepared for the river and a grand scheme to divert water to Special Areas, an arid region in east-central Alberta.

The region comprises three separate Special Areas, covering 2.1 million hectares, which are administered as a single entity by the Special Areas Board. The Board is responsible for municipal services and leasing of public lands. The Board operates five community pastures,

providing grazing for some 9,000 cattle annually.

The Board is evaluating the feasibility of a water supply project (SAWSP) that aims to divert water from the Red Deer River through an 88-km canal or pipeline to the headwaters of Sounding and Berry Creeks. The 384 kms of channels in these basins would distribute water for multiple uses, including domestic uses, stock watering, municipal use, irrigation, recreation, and waterfowl and wildlife conservation, particularly through wetland projects. Is this diversion the best use of water from the Red Deer River? Has anyone done a real reckoning of the cost of diverting this water?

Part of the Palliser Triangle, Special Areas was designated to promote settlement of the region starting in the early 1900s. John Palliser, who explored the prairies in the mid 1800s, documented extremely dry conditions and speculated that some areas, now dubbed the Palliser Triangle, would be “comparatively useless” for agriculture. However, a relatively wet period followed, bringing settlers to the region. The population initially increased but a huge exodus occurred during the drought of the 1930s.

Currently the South Saskatchewan Basin Water Allocation Regulation reserves water for the area sufficient to irrigate 25,000 acres of land. The number of cubic metres required would vary depending on weather conditions and is, therefore, difficult to determine. While the average flow of the Red Deer River ranges from 20 to 82 m³/year, the project proposes to divert 220,752,000 m³/year or 10 to 35 per cent of the river’s water, a huge amount of water, whose loss will undermine the ecological integrity of the Red Deer River.

The project fails to consider a number of critical elements:

(1) Instream flow needs. As discussed previously, recent meetings of the Red Deer River basin advisory committee and stewardship groups indicated that the instream water conservation objectives will be undermined in favour of SAWSP. This is contrary to the position of Alberta Environment's Water for Life Strategy in terms of conserving the aquatic environment.

(2) Full cost accounting. The full cost of the project has not been assessed, including loss of ecosystem services. There would be limited economic return for the public commodity of river water. The amount of food production increased from the diversion would be minimal in light of need and economic return. SAWSP would be a subsidized project.

(3) Ecological integrity. Portions of the Red Deer River basin are already degraded. The further impact of the proposed project on the ecological integrity of land and water of the Red Deer River region has not been assessed.

Proponents of the Special Areas Water Supply Project (SAWSP) believe that the long-term viability of the human population in the Special Areas region is largely dependent on water supply. "The most important thing other than drought proofing our area," says the Web site, "is opportunity for renewed hope for the

future." They believe that in addition to socio-economic benefits will be "considerable long-term environmental sustainability." Since a naturally arid environment will sustain itself quite well if left on its own, the environment they want to sustain must be the one created by artificially high water supplies.

In his review of J. M. Arthur's book, *The Default Country: A Lexical Cartography of Twentieth-Century Australia*, Andrew Johnson explores the understanding of "drought-proofing" in Australia. The word drought, Arthur noted, carries with it the sense of an abnormal ecological event, something outside the normal progress of seasons and rainfall. In parts of Australia, however, extended periods of low or zero rainfall might be normal.

Johnson argues that while one might take the word *drought* at face value and universally apply it such that drought is a regular, recurrent event in Australia and a less frequent event in England, in Australia the word has a political, cultural, economic, and environmental impact. The language, he says, conditions its users to expect rainfall as a right – if not divine, then at least "natural."

"In one sense, then," writes Johnson, "the word suggests to Australians that the country they inhabit is defective, encourages them to take steps to 'repair' the land through extensive programs of irrigation, and also leads them to seek redress or

compensation from governments when such programs fail."

The key to drought-proofing is not manipulating nature but rather living and developing economies within its confines. As used by the Board, drought-proofing entails taking as much water as need to satisfy and support drought-risky practices. This ill-advised view of drought-proofing is contrary to the goals of developing sustainable communities.

Sustaining communities in Special Areas requires initiatives surrounding water conservation and altered land-use practices. We should not be looking at how we can get water to the land, undermining the environment in the process, but how we can use the land in its natural state.

For more information:

Flessa, Karl W., et al. 2001. *Since the dams: Historical ecology of the Colorado Delta*. Poster presented at United States –Mexico Colorado River Delta Symposium, International Boundary and Water Commission, Department of Interior and the Mexican Secretariat of the Environment and Natural Resources, Mexicali, Baja California, Mexico, 11-12 Sept. 2001.

Jensen, M. N. 2004. "Hidden cost of Colorado River diversions: \$2.4 billion annually." *University of Arizona News* 10 June 2004.

Johnson, A. 2004. Review of *The Default Country: A Lexical Cartography of Twentieth-Century Australia*, by J. M. Arthur. *Colloquy* 8. www.arts.monash.edu.au/others/colloquy/current/Johnson.htm.

Special Areas Web site: www.specialareas.ab.ca.



MILK RIVER DAM REPORT LOCKED IN CABINET

By Shirley Bray

Milk River

Under Lorne Taylor's instructions, the Milk River Feasibility Study has been "locked in a cabinet" according to Garry Bucharski of Alberta Environment. The government is waiting for the International Joint Commission (IJC) to finish its deliberations on Montana's challenge

of the international agreement regarding sharing of water of the St. Mary and Milk Rivers. AWA has written to the new environment minister, the Hon. Guy Boutillier, to ask about the status of this report and for a copy. Hopefully he can find the key to the cabinet.

Sharing Two Rivers

The Milk and St. Mary Rivers arise in Montana in or near Glacier National Park and flow north into Alberta. Milk River Ridge stands as the divide between water flowing north to the Hudson's Bay and south to the Gulf of Mexico. Within the Milk River Ridge area is the Twin River Heritage Rangeland and the confluence of the

north and south forks of the Milk River. A few kilometers downstream from the confluence is the proposed site of the Milk River dam.

The St. Mary River arises in Glacier National Park and flows north into Alberta into the St. Mary Reservoir. The water becomes part of the South Saskatchewan River basin and ends up in Hudson's Bay. The Milk River meanders through 160 kms of southern Alberta, then loops back into the United States south of Manyberries and flows into Montana's Fresno Reservoir. Eventually, the waters that pass through this basin reach the Missouri River and then the Gulf of Mexico, the only Canadian river to do so.

S. Rood



has been prevented from receiving its full 50 per cent share of water under the treaty. In dry years, it calculated that Montana receives around 40 per cent. Montana uses the water for irrigation and communities. Alberta argued that the agreement is fair, that it takes only the amount of water it is entitled to, and

and Mail (July 26, 2004) that the IJC should seek scientific advice on the long-term effects of climate change before reconsidering the agreement. He pointed out that climate change has exaggerated the natural differences between the two rivers.

The natural flow of the Milk River, which relies largely on spring runoff, has decreased due to shorter winters, longer summers, and higher overall average temperatures, which have reduced the snowpack and increased evaporation. The high alpine origin of the St. Mary River has kept its flow more stable, and its natural flow may have increased due to glaciers melting at increased rates and for longer periods each year. Therefore, the short-term impact of climate change may be working to Canada's

advantage, but as the glaciers disappear, the St. Mary River could become more like the Milk River, dependent on runoff and lacking a reliable late summer and fall flow.

In comments to the IJC, both the Southern Alberta Environmental Group (SAEG) and AWA noted that the aquatic and riparian environments of the two rivers are stressed and degraded by current water management. "Healthy rivers reflect healthy societies," wrote Klaus Jericho of SAEG. "IJC is responsible for making decisions regarding the use and quality of boundary waters. If the test of common good is to be met, decisions by IJC need to consider instream flows to protect and restore the health of the aquatic environments in these shared rivers."

In the meantime the IJC Task Force must submit a work plan in February that will include provision for an appropriate public consultation process. Its final report is expected at the end of June. Alberta's representative on the Task Force is Dave McGee of Alberta Environment in Lethbridge. More information can be found at .

St. Mary River

that it needs all the water it currently uses to maintain the irrigation economy of the area.

Alberta hopes to capture more of its share of the Milk River during the spring runoff by building a dam or using offstream diversions. It is likely that the 2002 meeting between Alberta's Milk River Water Management Committee and members of the international group regarding the Milk River Water Study was the catalyst for the Montana challenge.

The IJC, which includes three Canadians and three Americans, held four public meetings in July in Montana, Alberta, and Saskatchewan to seek public comment on the 1921 agreement. At the meeting in Lethbridge, most of the 300 people attending were against revising the agreement.

In December 2004 a new international task force was set up to examine the 1921 agreement and will make recommendations to improve it. Michael Byers, who holds the Canada research chair in global politics and international law at the University of British Columbia, wrote in the *Globe*

The flow of these rivers is shared by Canada and the United States under a 1921 international agreement that was used to implement the 1909 International Boundary Waters Treaty. Under the treaty, rivers are considered as one waterway and their flows divided equally between the two countries.

A 1921 agreement specifies how the water is to be measured and allocated. Natural flow is divided equally in the winter. But during irrigation season (Apr. 1 – Oct. 30) the U.S. receives up to three-quarters of the natural flow of the Milk River and Canada three-quarters of the St. Mary River. Montana can divert some of its share of the St. Mary River into the north Milk River via a deteriorating canal that doesn't always work properly.

Without diversion of water from St. Mary, the Milk River often runs dry in summer, while the St. Mary River rarely does. A leak in the canal in July 2004 closed the canal for almost a week, resulting in significantly lower water levels in the Milk River. Montana is thinking of fixing the canal.

In April 2004 Montana Governor Judy Martz asked the IJC to reopen the 1921 agreement, arguing that Montana



GOVERNMENT REVISING ACCESS PLAN FOR CASTLE WILDERNESS

By Nigel Douglas, AWA Conservation Specialist

Alberta Sustainable Resource Development (SRD) is starting to look at revising the 1992 *Castle River Access Management Plan for Motorized Recreational Access*. This plan, written in 1992 but not implemented until 1998, is now up for revision and AWA is keeping a close eye on the process. Though involved with the original Castle Access Management Plan Working Group in 1999, AWA resigned from the process, along with the Canadian Parks and Wilderness Society, the Professional Outfitters Association, and Speak Up for Wildlife, due to the fundamentally flawed process, particularly the failure to use the best available science in decision-making.

As part of the new revision process, Darryl Johnson and Marina Irwin from SRD's Public Lands and Forests Division have been contacting the numerous and diverse groups that were involved in the original plan. Although the mechanism for revising the Plan has not been decided, it is to be hoped that the process will avoid some of the acrimony that went along

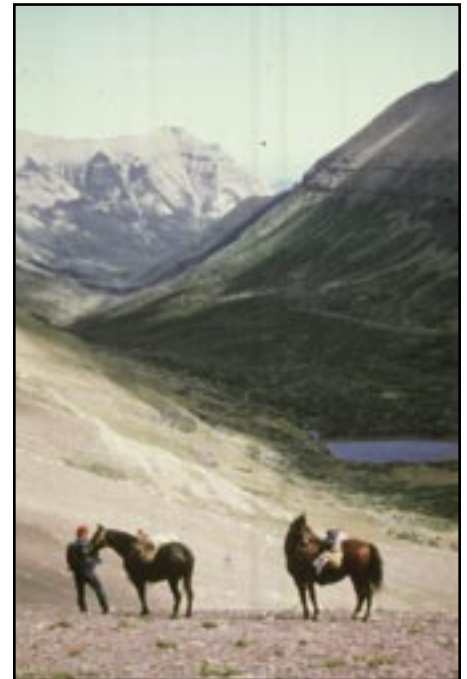
with the original plan. AWA is keen to ensure that, whatever the process, it should include thorough public consultation.

Problems with the existing plan include the very limited resources that are put into enforcing motorized access restrictions and the weak penalties that are imposed on anybody who is caught using the area illegally. Any fines imposed are seen by many as "user fees" for taking their vehicles wherever they want. One major criticism of the plan is the lack of any consideration to non-motorized users, whose enjoyment of the area is seriously impacted by motorized use. How can a plan possibly work that focuses on one set of users, yet completely ignores the legitimate requirements of others?

AWA has made some initial comments on the revision process. Our goal continues to be the fully legislated protection of the Castle Wildland and our position has always been that there should be no motorized access in protected areas. The need to reassess the overall picture in the Castle area – not just the motorized access – is as

strong as ever.

We plan to continue to be involved in the revision process as it develops.



G. Hackler

Yellow Creek, Castle Wildland

CHEVIOT UPDATE: BEN GADD FINALLY GETS HIS DAY

By Lara Smandych, AWA Conservation Biologist

Closing arguments were given at the Alberta Environmental Appeals Board (AEAB) Hearing in Ben Gadd's appeal of the approvals issued by Alberta Environment for the Cheviot mine haul road. The two-day hearing was held in Hinton, Alberta on January 24 and 25, 2005. Gadd was deemed to be directly affected by the construction of the haul road as it may have negative impacts on his ecotourism operations, which he conducts in the area of the haul road.

The hearing provided the opportunity to both Gadd and

representatives of Cardinal River Coals Ltd. (CRC) – now Elk Valley Coal – to review and provide information on the approvals granted for the haul road project as well as to address outstanding concerns regarding the haul road, including the impacts on wildlife movement and migration, the impacts on watersheds, and tourism access. The haul road is already operational and mining of the Cheviot Creek pit area has commenced.

In the cross-examination of CRC's panel, Gadd's counsel, led by Jennifer Klimek, raised questions regarding the

impact and mitigation of the road for sensitive species, including the grizzly bear and harlequin duck populations; the mitigation of dust and noise; relocation of existing campgrounds and trail access; and verification of the level of employee training and company commitment in regards to avoiding wildlife along the road and reporting accidents, mortalities, and encounters.

The AEAB will make recommendations to the Minister of Environment within 30 days.



PUBLIC, SCIENTISTS IGNORED - SPRING HUNT FOR GRIZZLY BEARS ON AGAIN

By Nigel Douglas,
AWA Conservation Specialist

Grizzly Bear

At the beginning of February the government announced that the spring grizzly bear hunt would be taking place again in 2005, in exactly the same format as last year (73 licences issued). AWA had high hopes that a new Minister of Sustainable Resource Development, David Coumts, would not follow in the ill-advised footsteps of his predecessor.

We hoped that he would be willing to listen to the scientists on the government's own Endangered Species Conservation Committee and Grizzly Bear Recovery Team, which have both recommended a suspension of the hunt. Apparently not. If he is not listening to his own scientists, or to the Alberta public, or even to hunters, many of who oppose the hunt, who is he listening to?

The draft Grizzly Bear Recovery Plan was finally presented to Minister Coumts, just before Christmas 2004. What happens next is unclear. The Plan will go through a process of consultation within the department and the Minister will then decide whether to implement the Plan or not. To put this in context, the draft Caribou Recovery Plan was submitted to the former SRD minister, Mike Cardinal, in June 2004 and the final version is still being awaited. Coincidentally, on the day that

the caribou plan was submitted, AWA was contacted by three separate oil and gas companies planning to carry out work in the habitat of the Little Smoky caribou herd, one of three herds defined in the plan as 'at immediate risk of extirpation.'

An anonymous caller said he believes AWA is going "off the deep end" on the grizzly issue because we are using bad science and bad numbers from an unreliable source. So we went back over the last two years to confirm the origin of the numbers AWA has been using. It turns out our numbers come from the government and AWA's recommendations regarding grizzlies concur with those of government committees.

In 2002, estimated grizzly numbers were 841 bears on provincial lands and 175 to 185 in the National Parks. A 2003 Alberta government report (*Report on Alberta Grizzly Bear Assessment of Allocation*) revised those numbers to 500 bears on provincial land (and 175 in the National Parks).

There is some debate over this figure, but scientists, including Dr. Mark Boyce of the University of Alberta, government biologist Gord Stenhouse, and Mike Gibeau of Parks Canada, who was also a researcher for

Eastern Slopes Grizzly Bear Project, concluded that the weight of evidence, based on studies within Alberta, suggests a provincial population, including national parks, of less than 700 independent bears (not including cubs still dependent on their mothers). They agreed that Alberta has the habitat resources to support a larger population to recover the species.

In common with AWA, the government's Endangered Species Conservation Committee in 2002 recommended listing the grizzly as a threatened species and the Grizzly Bear Recovery Team recommended in 2004 that the spring grizzly hunt be suspended. So if AWA is going off the deep end, we're in good company.

"The beauty and genius of a work of art may be reconceived, though its first material expression be destroyed; a vanished harmony may yet again inspire the composer; but when the last individual of a race of living things breathes no more, another heaven and another earth must pass before such a one can be again." - William Beebe (1906)



THANKS TO ANDY MARSHALL

Andy Marshall, a regular contributor to the *Advocate* for four years, has cut back on his writing as a result of his election to Cochrane Town Council last fall. However, he retains an active interest in the *Advocate*, as a member of its editorial board, and in the important work it does for conservation issues.

GOVERNMENT CONTINUES TO PROP UP GAME FARMING INDUSTRY IT ADMITS IS NON-VIABLE

By Shirley Bray



S. Bray

Game farm near Trochu

Once again the Alberta government is pumping money into the failed game farming industry. The Alberta Industry Transition Program for Other Ruminants will allow producers to access \$8 million in short- and long-term provincial support to help maintain herds and flocks and develop new markets, says a December 2004 government news release. “Other ruminants” include domestic animals such as sheep and goats, but also game-farmed animals such as deer and elk. The government is trying to blur the lines between domestic and wild farmed animals – but the distinction is critical to wildlife conservation.

In a meeting with frustrated game farmers about two years ago, then Agriculture Minister Shirley McLellan said that if she had been around when game farming was brought up in the first place, she would have voted against it because it will never be economically viable. Why then is the

government continuing to pour money into this industry?

The Alliance for Public Wildlife and AWA both agree that the industry needs to be shut down and that game farmers need to be properly compensated once the industry is gone. We object to the government pouring more taxpayer money into the game-farming industry and trying to revive it. The government is essentially promoting the greatest known enemy of wildlife – markets. Wildlife is a public resource and should not be sold. Wildlife in North America was almost wiped out in the 1800s because it could be sold. During the 1900s, a century of increasing fragmentation, wildlife was restored because selling it was made illegal. Now fragmentation and markets present a dual threat to wildlife.

The class action lawsuit brought by game farmers against the federal government in Saskatchewan continues to go forward. It is now in

case management and proceeding to certification, which means that the government can no longer delay.

Ontario has joined seven other provinces in banning penned hunting. Ontario had previously banned penned hunts for native and endangered species but permitted hunts for exotics such as wild boar and fallow and sika deer at approximately five penned hunt operations. Four of these recently had charges laid against them for violations of various Ontario wildlife and land-use regulations (International Fund for Animal Welfare, Dec. 2004 news release). The number of penned hunt operations has decreased in Canada from ninety in 1998 to about twenty in Quebec and Saskatchewan, the only provinces that still permit these hunts. Alberta pledged to continue its ban on penned hunting in 2002 in the face of large-scale public opposition.



CANMORE ARTIST USES IMAGERY TO HELP US RECONNECT

By John Geary

Copyright Colleen Campbell

Colleen Campbell is one of those people who defy any attempts to pigeonhole her.

The Canmore resident is a wildlife artist, but also a wildlife researcher. As an artist, she is not strictly a painter, nor is she a sketch artist. She originally trained in interior design, although she once considered becoming a veterinarian. She has traveled extensively, doing studies in the Canadian north, cycling in Europe, and working her way around Asia and the south Pacific.

Campbell does not actively seek to defy pigeonholing; rather, it is a by-product of living a very full, active life, one based on following her passions. Like many artists, Campbell began her lifelong relationship with art as a youngster. "I'd been drawing and painting since I was a little kid, long before I went to school," she says. "Then I took fine arts courses as much as I could throughout high school in Ottawa. I've been a fulltime artist at periods of my life, usually when I took time off from whatever job I had at a particular time."

Campbell grew up in Ottawa, moving to Victoria just as she finished high school. She wanted to go to veterinary school, but at the time, women were not being accepted into the program. The University of Victoria was planning to start a faculty of fine arts, but when it bogged down, she decided to head east to study interior design at the University of Manitoba.

In completing her degree there, she managed to work a conservation

angle into her thesis. "It was more about environment than it was about stuff, location, sense of place, so even as an undergrad I was concerned about conservation," she says. That concern grew when she spent two summers in the Canadian north, doing grad



Colleen Campbell

work, in the mid-1970s. "That's when I realized how important our contact with the natural world really is, and how important it is for us to respect that. I think some of the events we see unfolding in the world today – things like avian flu, mad cow disease – are a result of disrespect we have for other creatures."

Even when she became very busy with her teaching career – she's taught at post-secondary institutions like Calgary's Mount Royal College for 33 years – art continued to play an important role in her life. When her teaching duties began to demand more time and energy, she maintained a connection with art by working in her sketchbook, collecting ideas.

At the same time, she realized the volunteer work she was doing – wildlife research – was critical to what she would produce as an artist. "My work is about a spiritual reconnection with nature," she says. "My work is not necessarily about wildlife but about a sense of place and a connection to the environment, and seeing the importance of different animals, the roles they played in the original myths in many different cultures, and how they taught us things about the world we live in. We've kind of forgotten that."

For example, in one of her pictures of a coyote, there is an aspect of "road kill" in the imagery, but it also deals with the mythological stories about coyotes and how they wore many different masks in those stories.

Campbell says the animals she portrays in her art seem to produce very extreme feelings in people. "They love or hate ravens, love or hate coyotes, or, with bears, this conflict about wanting to see one in the wild but not wanting to see one in the wild."

That's a feeling Campbell does not have the luxury of indulging: since 1993, she has focused her wildlife conservation work on grizzly bears,

including work on the Eastern Slopes Grizzly Bear Project. During the last three years, she has studied habitat for female grizzlies with cubs in the Lake Louise area.

Campbell's artistic talents reflect her diverse approach to life. She did her masters degree in printmaking, and she loves silk screening but does not care to work with water-based inks. She has also done etching and photography. But these days, she tries to create art with less toxic forms of materials. "I've started doing a lot more in watercolour, and I've begun to see drawing as means to an end rather than an exploratory medium."

While she has not had much time to focus much time on her art recently, she is in the process of turning her basement into a studio. And there are some works in progress. "There's a drawing of a raven there right now, but I haven't worked on it in several months. I've got a couple of really big projects on the go and another one in my sketchbook.

"There's always something percolating along."



Copyright Colleen Campbell



Copyright Colleen Campbell



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SOARING WITH THE AWA

By Sarah Anglehart and Fiona Stewart



S. Bray

Master of Teaching class, Fall 2004

As part of the Master of Teaching program at the University of Calgary, we were placed at the Alberta Wilderness Association (AWA). This non-profit society is housed in a former school that is a historical building in Kensington. It feels like a place of learning, and the wooden stairs are worn from the thousands of steps students have taken up and down them. There was a cohort of eight in the placement. Our welcome was warm and included homebaking and warm drinks. Vivian Pharis and Nigel Douglas led us through the framework of the program.

Our task was to learn about watersheds, divide into pairs, make a lesson plan, and take it out to schools beginning the following Monday morning. In the afternoon we had a PowerPoint presentation. It provided a wealth of information about watersheds in Alberta. We were also offered a number of additional resources. We were not, however, given any definitive parameters for our presentation. Vivian and Nigel expressed complete faith in our abilities to complete the task at hand.

Overnight we thought about the presentation and the task we had been assigned. We met up and went to the offices of the AWA; by the time we left there two hours later, we had a framework for our presentation and a bucket of organic matter from Vivian Pharis's backyard.

We met up again on Thursday, November 11 to produce our

experiment. Using duct tape and screen recovered from a neighbour's renovations we came up with a demonstration comparing what happens when rain falls on a forest and when rain falls on cement.

Monday morning found us in the office of Louis Riel Elementary/Junior High facing the unfolding drama of our contact having called in sick; there being no substitute teacher; and the class having been scheduled to have a test on microscopes. We were both bewildered by everything that was taking place. The assistant principal took us up to the room in which we were to present and showed us where we could get water.

The principal came and supervised homeroom attendance. The regimented

Dear Nigel,

Thank you for the wonderful experience I had during my Community/Workplace Placement at the Alberta Wilderness Association. Your faith in the process sustained me as I made my way to my first presentations. It was only after several successful sessions that I began to believe in the process myself.

I learned a great deal during my time with AWA. Since our assigned topic was watersheds, we had the opportunity to visit a number of grade 8 classes. It was my experience at AWA that led me to change my route from elementary education to secondary. It is, therefore, not an overstatement to say that this placement was a life-altering experience for me.

Thank you.
Sincerely, Fiona CM Stewart

nature of Junior High startled us. The group left and our first class arrived. We began our presentation. We read information from cue cards, we discussed our poster, and frankly, neither of us remembers much of the presentation. We lost the class and were finished everything we had by 9:00 a.m. Unfortunately, the next bell, the dictator of secondary education, would not ring for another 22 minutes.

We made a shift to "wing it" mode. We discussed in low tones our options. During a presentation at the university, a guest speaker had taught us a simple

word game, much like charades. On November 15, 2004 we used that game to save us from a very bad start to our tenure as spokespeople for the AWA.

Students wrote words on scraps of paper on the topic of watersheds. We divided the class into teams and each had one minute to come up with as many words as possible. We almost crashlanded, but instead we caught an updraft and soared. An idea passed to us by a teacher, who we now understand had perhaps herself run out of things to talk about, turned out to be a key element of our presentation. It was a wonderful experience.

After our time ran out and while we were packing up our things, the principal gave us constructive feedback. She suggested that rather than ask the students to use their own paper, we should pre-cut slips of paper for the game. We smiled and nodded and did not share with her that we had not planned on including this game at all. Suddenly the next group from the AWA was setting up and we were dumping our water. It had been quite a ride.

Over the following four weeks we visited 8 schools and presented 14 times to groups ranging from grade 4 to grade 11. It was a remarkable experience for us. We felt the highs and lows of teaching. Because of the curriculum content we had a number of presentations to grade 8 students. While there were moments of desperation, there was also laughter. We witnessed at least one amazing thing in every school we visited.

We have come to see teaching as a water dance. There is a park in Richmond, B.C. where the water table is so high that if one jumps up and down, the ground ripples. This is how we have come to see teaching. Despite the temporary illusion that one is on solid ground, it is a delicate balance and an unexpected wave can knock you off your feet at any given moment. It is only in experiencing the waves that one learns to surf. We both feel gratitude to AWA for providing us with this unique opportunity.



ALBERTA POLITICS UNCOVERED: NEW BOOK EXPLORES IMAGE VS. REALITY OF ALBERTA

By Mark Lisac

Last fall, NeWest Press published my book, *Alberta Politics Uncovered*.

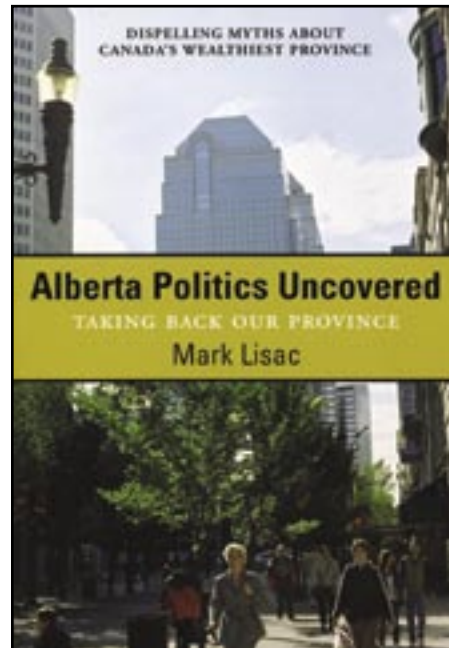
It has met the usual dismissals from some people. Others have responded more warmly than I had thought probable, especially some younger readers.

Why did this happen? Because change is in the air, I think. A lot of people seem hungry for a fresh discussion of Alberta politics. People want realism. They want to hear independent voices. They know something is wrong when they hear the official ideology describing one Alberta but look around and see a province that is quite different. The image is a place of self-reliant freethinkers. The reality is a place where the provincial government keeps gathering more power into its own hands. The image is a land of entrepreneurs and cowboys. The reality is a place where politicians like former cabinet ministers Murray Smith and Steve West keep coming back to the public payroll after years of talking about getting government out of people's lives.

Much of *Alberta Politics Uncovered* explores these kinds of contradictions. There are many. The vaunted low tax load is compromised by high post-secondary tuition fees and the costly, regressive flat tax known as medicare premiums. The bonanza of natural gas royalties that makes the low taxes possible (for now) comes at the price of soaring utility bills.

Spending cuts turned out to be partly illusory. The health system suffered badly for three years but has been painfully restored year by year ever since; one of the keys has been to attract physicians and nurses by offering better pay than they can get in other provinces. The budget was balanced but a multi-billion-dollar debt was built up in the form of delayed spending on maintenance of roads and buildings.

Alberta has had successes in the last decade, too. They have usually come in lower-profile areas such as improvements in consumer protection, workplace safety, family law, and some programs for children. Government leaders oddly tend to treat such real achievements as too minor to notice. They would rather launch grand plans



with titles like the “the third way” in health care and “the new Alberta.”

Slogans and cliches should function as a warning. They serve only to cover up realities. “Western alienation” is one. It too often allows the strange mental separation that sees the federal government attacked for the kinds of scandals and arrogance that are accepted from the provincial government.

The “maverick” reputation is another favourite. It too often justifies doing things that don't make sense. It allows cover for policies like a flat-rate income tax, which never received public discussion, or for unpopular experiments in health policy.

The election last November may have signalled some changes. Voters

punished a lack of substance in the Conservative campaign, a lack that some Conservative candidates admitted was a problem. Scores of candidates acted as independent voices for smaller parties such as the Alliance and the Greens. The Alliance resembled other parties from the past, but the Greens are new and took a surprising five per cent of the popular vote in Calgary.

These small incursions may be the first step toward a fragmentation of political power that resembles the ongoing fragmentation of the media. However, some broad themes are likely to prevail. One of the most important is likely to be an increasing concern for the environment.

Alberta depends on endless, rapid growth. Our economy is built on capital investment. Our household finances depend on relatively low housing prices (compared with the likes of Toronto and Vancouver) that depend on rapid outward expansion of cities. Our provincial finances depend not only on gas royalties, but on the income tax provided by a well paid young workforce that translates investment dollars into things like oilsands plants.

The price for these dependencies is paved-over farmland and the pressure of a larger population that, for example, has obliterated much of the sport fishery and strained the capacity of the mountain parks. Part of the political reaction we are beginning to see grows from the conversion of an Alberta of blue skies and open space into a crowded, industrial landscape. We have to develop the words and the political choices to match this reality as well as the reality of a political system dominated by a single party.

BEWARE KANANASKIS NORTH

Mr. Danyluk really experienced an environmental epiphany, or is he just “flying a flag of convenience”?

In political terms, supporting the recent designation of the Garner Orchid Fen Natural Area must have been non-taxing because (1) although of undoubted ecological significance, by international standards this 1.66²-km site is tiny (the IUCN’s minimum size limit for a protected area is 10 km²) and thus “sterilizes” (economically) only a postage stamp-sized patch of boreal forest; (2) no Lac La Biche region businessman has come up with a plan to “develop” Garner Fen ... yet; and (3) Natural Area – the government’s favourite category of “protected area” – embodies a level of protection equivalent to a piece of wet tissue paper.

According to a peculiar article in the *Edmonton Sun*, October 8, 1996 (notable chiefly for the fact that its author was obviously unaware that Lakeland had already been established four years previously), the “Kananaskis North” moniker originated with the Getty government in 1990. As a former planner for Alberta Parks who worked on Lakeland, I am hard-pressed to imagine a worse “model” for Lakeland to follow than

the crass commercialization and over-development, at the expense of environmental protection, epitomized by Kananaskis. Such a K-Country type development plan would inevitably lead to the loss of Lakeland’s remaining ecological integrity and wildland character, and I urge the AWA to vigorously and unequivocally oppose the whole concept of a “Kananaskis North.”

Finally, if you believe that perpetrators of crimes against the environment should be held accountable, not rewarded, for their actions, the question arises whether the AWA should develop selective amnesia regarding Mr. Danyluk’s earlier “accomplishments.” After all, this is the political opportunist who, having identified cormorants as convenient scapegoats for the chronic, long-term, over exploitation of walleye stocks in Lac La Biche, sponsored Bill 206 in order to “legitimize” their unwarranted persecution. I’ll acknowledge grounds for optimism when Mr. Danyluk helps get this asinine piece of legislation repealed. Until then, I’ll stick to the truism: “A pessimist is an optimist in possession of the facts.”

Yours sincerely,
Dr. Richard G. Thomas

SHARING THE BIGHORN WITH EQUESTRIAN USERS

Dear Editor:

In one of your pieces on the Bighorn Wildland you referred to problems of equestrian use. My wife and I are hikers and there are times we dislike the effects of horse use on the trails. However, there are a number of good reasons for not publicly objecting to this use. Its effects are minor compared to the aesthetic and physical despoliation from OHV use.

Horse riders have some claim based on longstanding usage: many hiking trails were horse paths first. Perhaps most importantly, for the most part, I think equestrians share the values of other friends of the wilderness and should not be alienated. We appreciate the activities of Lara Smandych and others in the AWA.

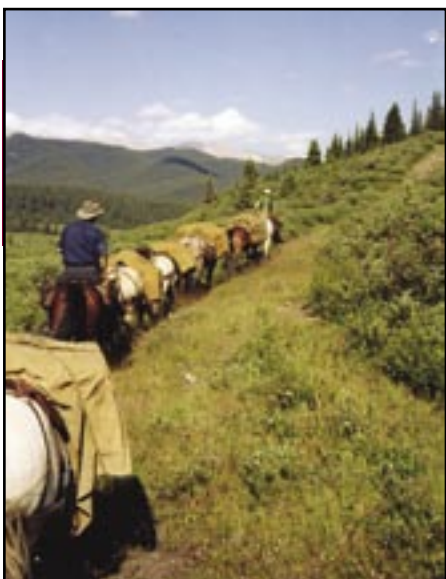
Lois and Glen Mumey
Cowley, AB



Boreal Forest in Lakeland

Dear Editor:

Dr. Ian Urquhart’s recent article (*WLA* Dec. 2004) on the Primrose-Lakeland area exudes a strong whiff of what John Ralston Saul has termed “relentless positivism.” Since a certificate of ecological illiteracy is a mandatory requirement for membership in the provincial Tory caucus, I think Ian’s optimistic assessment that he and AWA can “work together” with MLAs such as Mr. Ray Danyluk (Lac La Biche–St. Paul) should be tempered with a hefty dose of caution. Has



Horses in the Bighorn

**Lara Smandych,
AWA Conservation Biologist,
responds:**

Thank you for your letter regarding the Bighorn Wildland. AWA supports responsible recreation activities in appropriate areas of Alberta's wilderness, including, hiking, camping, and horseback riding. We believe that these activities, if well managed, provide a traditional way for experiencing the backcountry. At the same time, we recognize that these activities can have serious impacts on the landscape if not properly managed, monitored, and maintained.

AWA has been monitoring recreational impacts in the Hummingbird area within Bighorn Wildland, where horse use is legal.

Whereas other activities, such as OHV use, are temporally restricted to certain times of the year and spatially restricted to designated trails only, equestrians can ride at any time of the year, to any location, on any trail. This unrestricted access has resulted in the creation of a large network of braids and secondary trails throughout the landscape. Similar to the damage created by OHV use, these trails show signs of severe rutting and vegetation damage.

I understand and respect your perspective and do not wish to alienate the equestrian community; however, the damage caused by this activity cannot be ignored. Cumulatively, if the damage from recreational activities continues unabated, we may witness the transformation of

remaining wilderness into a degraded backcountry. All users must be aware of the impacts they cause and must take responsibility for the condition of both the trails and surrounding landscape so as not to impede the use and enjoyment of all. The future of Alberta's wilderness, along with the opportunity and experience that we all appreciate and enjoy, are being threatened, with the lack of protective designation and increasing mismanaged recreational activity. AWA continues to work with SRD to improve the management and overall condition of trails. AWA has also recently contacted many of the equestrian groups involved in the Bighorn area to discuss common concerns and address management issues.



CAPP'S "RESPONSIBLE" RESOURCE DEVELOPMENT AD QUESTIONED

believe that people of all walks of life are lining up to give their sincere, heartfelt thanks to Canada's petroleum producers. But, finally, the ad went too far. It reported that the region's beleaguered cows "didn't even notice" the petroleum producer's recent seismic work. Wait a minute. I think the cows did notice! I think that they, in their profound bovine wisdom, simply chose to keep their mouths shut. Why? What do most petroleum producers eat with their mashed potatoes and gravy?

I don't usually read industry ads. On this occasion, however, my eye caught one glaring sentence: "Cattle share this densely vegetated space with deer, moose and elk as well as large ground-nesting birds such as herons."

I would assume that most of your readers, and all credible wildlife biologists, know that the area's great blue herons – the only herons the petroleum producers are likely to encounter – are colonial nesting birds. They build their bulky, conspicuous nests in the crowns of the tallest available trees. Dozens of these nests

often appear within established heron rookeries.

Sadly, the Canadian Association of Petroleum Producers, while looking for love, is trying to find herons in all the wrong places! More surprising is the association's proud salesmanship of its flagrant error. Its worst offense, however, is its blatant insult to Alberta's head-smart cattle, observant animals that have never been known to say a single word in support of Canada's petroleum producers.

David McIntyre
Crownsnest Pass, AB



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Dear Editor:

A recent issue of *The Pass Herald* contained a half-page Canadian Association of Petroleum Producers ad entitled "Committed to responsible resource development." The ad was used to "sell" the association's science-based environmental ethic and its "ground-breaking" efforts to protect ranching and wildlife values. The same ad also lauded the loving and group-hugging relationship that was seen to exist between the petroleum producers, ranchers, and Alberta Sustainable Resource Development.

Well, okay, I guess that I can

SUBVERSION OF DEMOCRACY IN ALBERTA

Dear Editor:

Have your readers ever wondered why it is that the public keeps being thwarted by the Alberta government?

Public demand in Alberta for effective conservation and protection of the natural ecosystems we depend on seems, all too often, to fall on deaf ears. How can that be in a democracy? you might ask. Well, on 16 August 2000, Robin White and I found the answer.

We like to think we have a representative democracy here in Alberta. According to Webster's dictionary, that is "a form of government in which the supreme power is vested in the people and exercised by them indirectly through a system of representation and delegated authority in which the people choose **their officials and representatives** at

periodically held free elections." [My bolding.] We are the paymasters of the MLAs and ministers who decide law and policy, and of the civil servants who carry that out. They are all our servants. Or are they?

That August day found the two of us in the E. S. Huestis Demonstration Forest, seven km west of Whitecourt on Hwy 43 then five km north on Hwy 32. The forest covers a 10 km² area and provides some 16 interpretive signs along a self-guided, 7-km-long, drivable nature trail. The signage was revealing. Some of it pointed to an ignorance of scientific fact, but that's another issue. What chiefly caught our eye was a sign that read as follows:

"Alberta's forest managers are accountable to many clients as well as all Albertans to ensure their interests

are protected."

Well, there you have it, folks, straight from the lion's mouth. Citizens and taxpayers take a back seat to the government's "clients" and protection of those clients' interests.

Clearly this government has become so corrupted that it no longer understands what democracy is. What they are doing is illegitimate. In an actual democracy, the citizens' representatives represent the citizens – no-one else. Should citizens vote this government in again at the next election and pay their salaries to protect interests other than those of the citizens? Think about it. Why would you?

Marian White
Calgary

LAC LA BICHE: "FOREST CAPITAL OF CANADA" - A FARCICAL MISNOMER

Dear Editor:

Whether blaming commercial overfishing of walleye on cormorants, or proposing to further overload a failing sewage disposal system (thereby ensuring that Lac La Biche [LLB] retains its title as "western Canada's most eutrophic large lake"), the region's politicians and pro-development lobby blindly adhere to the mantra "Don't confuse us with the facts." A classic case in point is provided by the town (and Lakeland County's) recent reconfirmation as "Forest Capital of Canada." I wish to offer an alternative perspective on this tragi-comic event.

Alberta is divided into the White Area (or Zone – i.e., the settled, cultivated, and predominantly privately-owned portion of the province – and the Green Area – land that is mainly forested and Crown-owned. The White Area is continuously expanding at the expense of the Green Area, and the "signature" ecological feature of

the White/Green contact zone is the rapid rate at which its forest cover is being cleared and fragmented. LLB currently lies near the heart of this "fragmentation frontier," where the main causes of forest loss are agricultural clearances (to produce yet more economically marginal farmland), settlement expansion/urbanisation, and clearcutting of private woodlots to feed the Al-Pac pulpmill's rapacious maw and local sawmills.

LLB is located within the south part of the Dry Mixedwood (DMW) Sub-region, which forms the southern margin of Alberta's Boreal Forest Natural Region (BFNR). For a 1998 Alberta Environmental Protection report on the "state of health" of the BFNR, satellite images and air photos were analyzed in order to calculate the annual rate (per cent) of deforestation in the southern DMW between 1949/1950 and 1994/1995. The rate determined was 0.91 per cent (or 192 km² of forest cover lost per year).

To place this figure in a global context, the annual rate of deforestation in Amazonia between 1975 and 1988 was 0.87 per cent. (Note: the total area of forest cleared per year in Amazonia is obviously far greater than that in the southern DMW.) Did renowned environmentalist Colleen McCrory have the LLB region in mind when she called Canada "Brazil of the North"?

Examination of more up-to-date satellite imagery indicates that since 1995, the annual rate of forest loss in the LLB region has actually increased! Therefore, in honour of those councilors who continue to demonstrate their contempt for the concept of environmental sustainability, I propose that LLB and Lakeland County adopt a far more accurate and appropriate title: "Deforestation Capital of North America."

Yours sincerely,
Dr. Richard G. Thomas

OPEN HOUSE TALKS

CALGARY

Location: The Hillhurst Room, AWA,
455 – 12th St. NW

Time: 7:00 – 9:00 p.m.

Cost: \$5.00 per person;
\$1 for children

Contact: (403) 283-2025
for reservations

Pre-registration is advised for all talks.

Tuesday, February 8, 2005

Swift Foxes in Southern Alberta

With Clio Smeeton

Tuesday, March 8, 2005

The Spider's Niche

With John Hancock

Tuesday, March 29, 2005

Following Rattlesnakes through the Changing Prairies of Southeastern Alberta

With Dennis Jorgensen

OTHER EVENTS

Thursday, February 24, 2005

We're More Than Just Pond Scum! The Secret Lives of Aquatic Bugs

With Dr. Gordon Pritchard

Time: 7:00 p.m.

Location: Bow Valley Ranch Visitor
Centre, East end of Fish Creek
Provincial Park, access via Bow
Bottom Trail

Cost: Free

Saturday, March 19, 2005

Geological History of the Rocky Mountains

Time: 9 a.m. – 3 p.m.

Cost: \$30

Contact: Friends of Kananaskis
(403) 678-5593,
friends@kananaskis.org

Saturday, April 16, 2005

Winter Digital Photography

Time: 10 a.m. – 3 p.m.

Cost: \$30

Contact: Friends of Kananaskis
(403) 678-5593,
friends@kananaskis.org

PAINT THE CALGARY TOWER!



Saturday, March 12, 2005

Join us for the annual Calgary Tower Mural Competition

- Bring your creative talents to celebrate Alberta wilderness
- Create a lasting mural in the stairwells of the Calgary Tower
- Prizes by Pages Books on Kensington and refreshments by Tim Horton's

Deadline for entry is

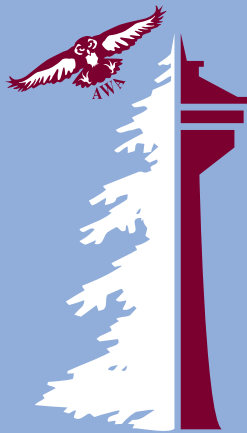
Wednesday, March 2, 2005.

Visit www.climbforwilderness.ca for details and registration forms.



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EVENTS

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Return Undeliverable Canadian Addresses to:



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

