

A WILDLANDS ADVOCATE



THE ALBERTA WILDERNESS ASSOCIATION JOURNAL

FEBRUARY 2015

Giving Up the Ghost?

Recreation: Learning From Others

Trails in the Bighorn

Urban Biodiversity

Buffaloed

C O N T E N T S

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Cover Photo

Yes, sand dunes are found in Alberta. Cliff Wallis captured this image in the sand dunes just south of Empress, a stone's throw from the Alberta-Saskatchewan border.

PHOTO: © C. WALLIS



Featured Artist: David Mayne Reid

David, an AWA member who helped us understand climate change in our December issue, is a Renaissance Man. Now retired, this accomplished botany professor's scientific curiosity has been complemented throughout his life by a love of the visual arts. During the last 15 years he's developed the artistic side of his personality with the help of the excellent instructors found in the Alberta College of Art and Design.

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Public/Private Lands/Interests

Our time is one where much effort is made to distinguish between the public and private spheres of our lives, between when the “public good or interest” should trump private interests and ambitions or where private interests should prevail. At the same time much effort is made to blur the boundaries between these spheres and the priorities they privilege. Public-private partnerships, for example, try to blur distinctions. They suggest that these partnerships, seen quite frequently in the context of building schools or public transportation, can further both public and private interests.

The features in this issue of the *Wild Lands Advocate* speak to this general issue and do so in the context of the land. How are public lands managed? Are they managed in ways ensuring that private desires and wants don't diminish their capacity to perform important functions for the general public? Gordon MacMahon and Robert Sandford look at clearcut logging practices in the Ghost River watershed through this lens. Clearly this technique is one designed to satisfy private

wants and needs, such as those of Spray Lakes Sawmills and its employees. But does government, the steward of the Crown lands which loggers depend on, ensure that the public interests served by forests in watersheds – ecological services and biodiversity – receive their due?

Industrialization of public lands may be the most obvious case where we can examine what sort of balance exists between private and public. Recreation on public lands also is an important element of this issue. Adam Driedzic invites you, and government, to consider how other jurisdictions regulate recreational activities such as off-highway vehicle (OHV) use. Can we learn from other jurisdictions and manage recreational activities better in Alberta? Adam thinks so.

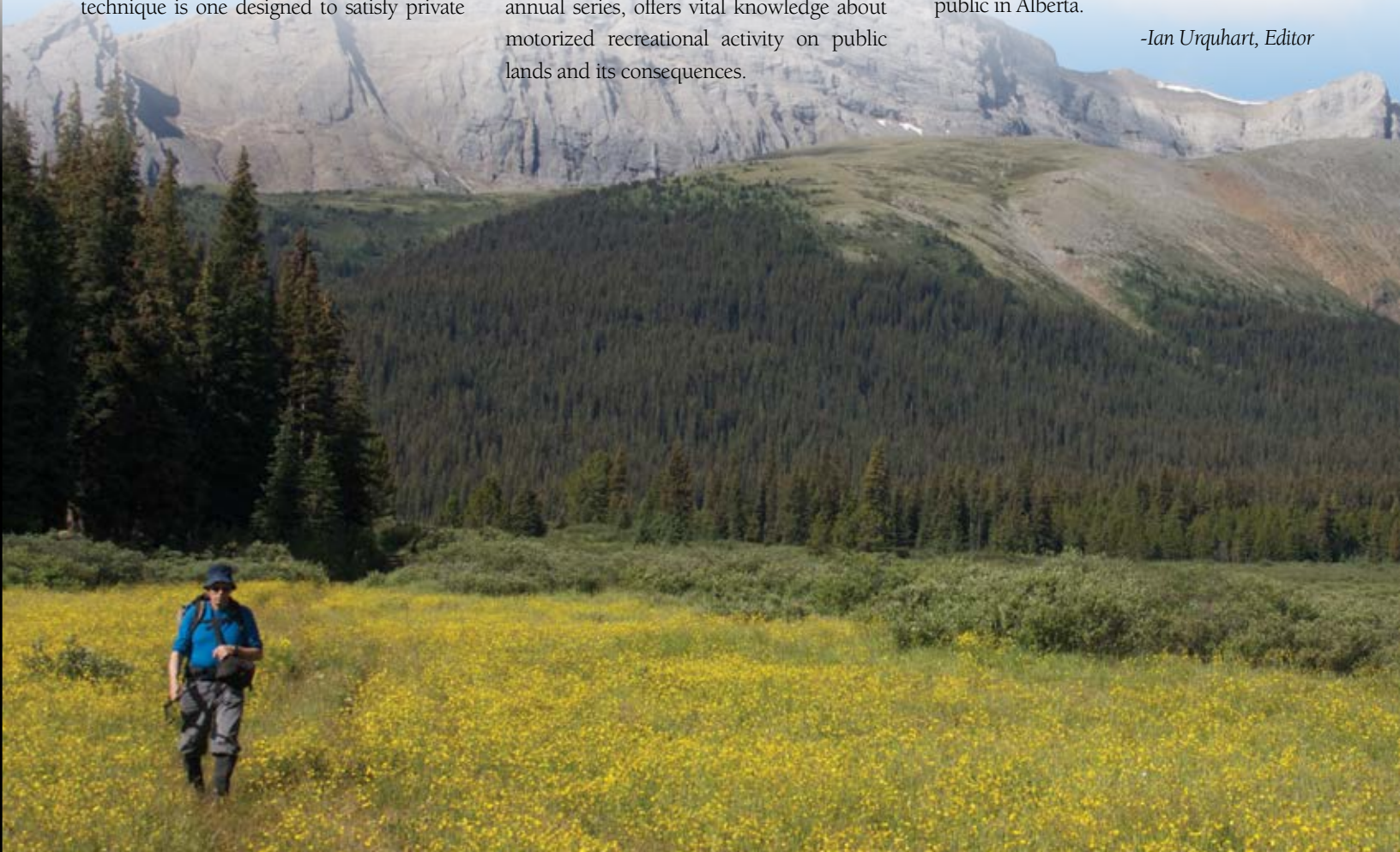
The impact of OHV use on Crown lands also is the focus of Sean Nichols' article on the Bighorn. AWA's long-term trail monitoring program in the Bighorn is one of our organization's activities I'm proudest of. Sean's report, one in an ongoing annual series, offers vital knowledge about motorized recreational activity on public lands and its consequences.

What about our cities? Most of us, after all, spend most of our lives in urban environments. What, if anything, is being done in our largest cities to ensure that public spaces there are preserved in the name of public goods such as biodiversity? David Robinson explores that question in this issue of the *Advocate*.

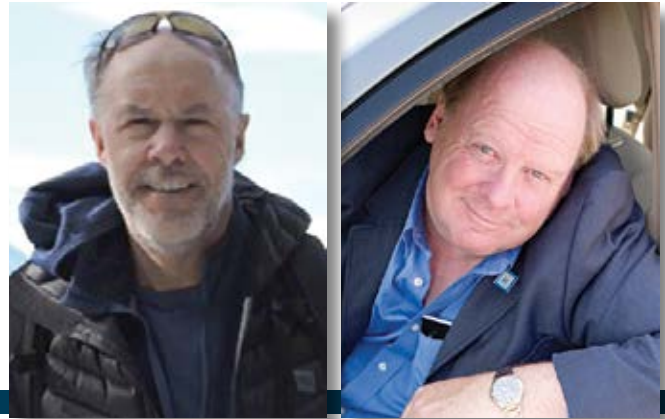
To turn the issue upside down, what about the relationship between private lands, and the activities on those lands, and the public interest? How can private activities protect and promote public interests and values? Conservation easements offer one mechanism to do just this. I look at a particularly contentious case where conservationists fought with each other over the terms and implementation of a conservation easement. It's a cautionary tale.

Many of the other contributions to this issue of your magazine also touch on this important issue. We hope you find them useful in thinking about this crucial relationship between the private and the public in Alberta.

-Ian Urquhart, Editor



Giving Up the Ghost?



By Gordon MacMahon and Robert Sandford

The Ghost River watershed immediately upstream of Calgary covers an area of some 1,000 square kilometres flowing into the Bow River at Ghost Reservoir west of Cochrane. Many watersheds located upstream of major urban centres, such as those upstream of New York and Portland, have been protected because of the valuable function intact watersheds play in stabilizing water systems and securing the clean water those centres depend on. However, despite recent flood events, Calgary now witnesses clear-cut logging in the Ghost watershed, logging which has many area residents up in arms.

Research by Kim C. Green and Younes Alila of the University of British Columbia shows that logging increases the magnitude of

floods; logging produces a two to four fold increase in the frequency of larger flood events. Research by John Pomeroy of the University of Saskatchewan in the nearby Kananaskis region demonstrates that while removal of trees may not affect peak flows, the compacting of soils often associated with clear-cutting can double peak flows during flooding events. It is estimated that, during the 2013 flood, the Ghost watershed contributed approximately 30 percent by volume to the total flow in the Bow upstream of Calgary. Clear-cutting in the Ghost watershed is likely then to increase the magnitude of future Bow River floods.

Spray Lakes Sawmills wields the largest axe in the Ghost River watershed. Its Forest Management Agreement and Timber Quotas permit it to log in this area. However many

residents are alarmed at the scope of its operation as the company expands rapidly across many areas we feel are both rich in biodiversity and offer critical ecological services. Clear-cut logging operations commenced in the western parts of the Ghost Valley in 2008; they continued through to 2013 when accelerated plans kicked in along the Waiparous Creek tributary. Going forward logging will very soon expand south and west along the Ghost River. Some of this new territory, originally planned for a twenty-year harvest, instead will see rapid clearing in just two years.

When digging into forestry planning documents area residents discovered that the Detailed Forest Management Plan for the Ghost was based on regional versus watershed level hydrological modeling. Crucially, this modeling was completed in 2004 prior to the last two recorded flood events of 2005 and 2013. Further investigation revealed that the harvest plans were based on historical average precipitation and did not contemplate the effects of severe weather events such as those witnessed in 2013. When looking at the Equivalent Clear-cut Area modeling that informed the harvest plans it became clear to us that the modeling didn't consider the effects high precipitation volumes would have on logged landscapes. Furthermore all the modeling and harvest plans (and initial approvals) were based on a spatial harvest sequence covering twenty years; it never considered taking all of the trees off the land in just 3 years.

Many of the areas that have been and will be targeted by the logging company arguably are very rich in biodiversity. The Ghost watershed also is well known for its abundant seeps, springs, and wetlands representing a



The beauty of the Ghost River Valley. PHOTO: © S. MACDONALD

very complex interplay between surface water and groundwater. Much of the Ghost River flow is composed of water that originated from one of the hundreds of springs found in the valley. Despite this established complexity the Ghost watershed and others in Alberta's Green Area are not protected and the logging companies are not required to maintain an extensive enough buffer adjacent to their clear-cut areas. Research from the Washington State Department of Ecology suggests that buffers around wetlands should be between 60 and 90 metres. However, buffers to wetlands in the Ghost are much, much smaller. Wetland functionality cannot be overlooked given the importance of the Ghost in supplying clean drinking water to many downstream residents.

But the issue in the Ghost goes far beyond our current or historical understanding of the value of wetlands in upland watersheds. What we are discovering is that warmer global atmospheric temperatures are causing changes in the rate and manner in which water moves through the Earth's hydrological cycle.

There is nothing particularly surprising about this. The most fundamental laws of atmospheric physics decree that, for every one degree Celsius of warming, the atmosphere can carry seven percent more water vapour. If you increase the temperature of the atmosphere by 2°C the atmosphere can carry 14 percent more water vapour. If you raise the temperature of the atmosphere by 4°C it will carry 28 percent more water vapour. The relationship, however, is non-linear because the percentage increase is always added to a higher number.

That is why recently identified phenomena such as "atmospheric rivers" demands our full attention. These huge rivers of water vapour aloft are carrying more water and are contributing to flooding of magnitudes we have not witnessed before.

At a recent high level meeting at the World Bank in Washington it was pointed out that there was some urgency in doing a better job of helping others understand how our hydro-climatic circumstances are changing. We, of course, know that hydrological conditions



Ongoing Spray Lakes Sawmills Clear Cut Operations in the North Ghost. PHOTO: © G. MACMAHON

on this planet have always been changing. We also know that we have been fortunate to have had a century or so of relative hydro-climatic stability. That era, however, seems to be over. The long-term hydrologic stability of the climate we experienced in the past will not return during the lifetime of anyone alive today.

What we haven't understood until now is the extent to which the fundamental stability of our political structures and global economy are in part predicated on relative hydrologic predictability. When we lose relative hydrologic stability – or stationarity as hydrologists call it – political stability and the stability of our global economy in a number of regions in the world are put at risk.

We now have clear evidence, for example, that the Canadian prairies have crossed over an invisible threshold into a new hydro-climatic regime. The loss of relative hydro-climatic stability on the Great Plains makes the established bell curve of climate risk meaningless. In a more or less stable hydro-climatic regime you are playing poker with a deck you know and can bet accordingly. The loss of stationarity is playing poker with new cards in the deck, cards you have never seen before. These new cards appear more and more often, ultimately disrupting your hand to such an extent that the game no longer has coherence or meaning. It can no longer be played.

A strong case was made by the World Bank

that hydro-climatic destabilization is now a major threat to development. Extreme weather events are now, in fact, reversing development in some regions. It was clearly stated that we now have to start thinking the unthinkable. The unthinkable, of course, is that these kinds of events might reverse development here in North America and threaten our prosperity. As evidenced by what is happening on the prairies, the fact is that it is already happening here in Canada. We just don't see it that way yet.

Our changing hydro-climatic circumstances tell us that what we thought was permanent or sustainable isn't. To evaluate development proposals such a clear-cutting in the Ghost on parameters that may be less and less relevant invites disaster. The loss of hydrologic stability suggests that sustainability may be beyond our grasp if we don't change our thinking and decisions now.

Sustainability demands many changes. We need to identify and then reverse the damages already done to Earth's ecological functions. We need to decide how we'll ensure that population growth, further ecological decline, and climate disruptions don't further destabilize our already fragile global economic system. If such destabilization occurs then implementing meaningful sustainable development goals will likely be unaffordable. One of the most immedi-



Spray Lakes Sawmills cutblock near Cow Lake. PHOTO: © H. UNGER

ate and cost-effective ways to make the required shifts is to invest in thoughtful, forward-thinking, and holistic management of our water and related natural resources.

It already has been well established that the careful management of water's role in ecosystem function is a form of insurance. It protects us against threats to the stability of the ecological systems upon which all of us ultimately depend for our livelihoods and prosperity. But to be of any use, we have to buy that insurance. We buy that insurance by protecting upland watersheds.

We have known for thousands of years that deforestation of the upper regions of watersheds can increase mean temperatures and diminish precipitation. Over time such changes alter local climates. Previous civilizations have learned this at enormous cost.

Soil is unlikely to be the first thing we think about with respect to the ecological services that upland forests provide. Like the Earth's atmosphere, the composition of which has been altered over time by the appearance of oxygen-producing cyanobacteria in the global ocean and terrestrially by the appearance of the Earth's forests, soil is in fact the creation of living things over time. Good soils are as porous and microscopically alive as a coral reef – and are just as crucial to the vitality of the larger ecosystems they are a part of.

Globally we are destroying our soils. We try to compensate for diminished natural soil health by adding artificial fertilizers. These fertilizers in turn wash away with depleted

soils and contaminate water in floods. The magnitude of such flood events could be reduced if we were better stewards of those soils. Soil compacting also has become a global problem in that it does not permit soils to absorb and retain water over the longer term. One study by Pokhrel, Hanasaki, et al demonstrated that nearly half of current global sea level rise can be attributed to water that comes from run-off from compacted agricultural lands. Healthy soils could have reduced or prevented such run-off.

Different ecosystems are characterized by different soils that capture, purify, and release water at different rates. Upland forests, for example, modulate the hydrological cycle by absorbing heavy rains, enhancing the seepage of water into the ground which is held firmly in place by tree roots, and reducing surface run-off. Healthy soil rich in microorganisms and their aggregates holds water like a sponge, releasing it slowly to plants as well as to aquifers, streams, and rivers. In combination, these effects even out the release and availability of water throughout the year. Healthy soil is now seen as the best protection for crops during a drought, as well as the best protection from floods. A 2012 test demonstrated that deep, healthy soils can absorb up to eight inches – more than 20 centimetres – of rain an hour without generating flooding.

Soils rich in microorganisms will also attack and eliminate pollutants from water, allowing purer water to eventually drain into an aquifer or stream course. Healthy soils remain

humanity's first and foremost water purification system. Rebuilding soils as a means of enhancing natural processes of water purification is now seen as smart urban planning. That is why 200 cities in 29 countries have foregone building new water treatment plants and instead have invested in watersheds. Calgary should join this club. The clear-cut logging proposal in the Ghost River Basin offers an opportunity to re-evaluate what our uplands forests do for us. Sustainable development doesn't mean putting a few more parameters forward for mitigation in advance of the expected approval of a development. It means that insuring that all parameters associated with any development – be it a subdivision or a cut-block – meet a standard that will ensure that development will not compromise the character of place, diminish biodiversity or eliminate the opportunity for future generations to live at least as well as we did in our time.

Traditionally, debates over logging in places like the Ghost have revolved around threats to wildlife, the loss of natural scenery, or a diminished quality of life of residents. But in the case of the Ghost we are talking about much, much more.

Now ecosystem services are in the spotlight. Giving up the Ghost means sacrificing the capacity of upland forests to slow and moderate climate change effects. By clear-cutting the forests and compacting the soils we are taking away free natural water storage and purification services for southern Alberta communities. The trade-off between fibre and ecosystem services also includes reducing flood and drought mitigation potential. This compromises our society's resilience to disaster. Soil health and attendant critical carbon storage will also be compromised. This will make it even more difficult to deal with rising temperatures throughout the prairies, temperatures that are expected to continue rising at a rate higher than that of any region in Canada except the Arctic.

But this trade-off between timber and ecological services is not the only one at issue here. There's a trade-off too between giving up the Ghost and the way we live

and the manner in which we allow ourselves to be governed. This very real democratic trade-off is related directly to the risk a society takes when it continues to make decisions based on a longstanding but dangerously outmoded political and economic status quo. The past, whether thought of in ecological, political, or economic terms, is no longer a guide to the future. If we give up the Ghost we risk more than “just” water security.

Some concluding comments

Ghost Valley residents have started to raise the alarm. We have hosted commu-

nity events and town hall meetings including events targeting many of Calgary’s flood affected communities. This informal community group known as **Stop Ghost Clearcut** is not ‘anti-logging.’ However it seeks an immediate moratorium on Ghost watershed logging until a slower more reasoned and sustainable logging approach based on current science and updated modeling is considered. If the formally approved logging method and pace does not value ecosystem integrity, biodiversity, and respect of the watershed’s hydrological functionality it should not be permitted. Sadly much of Alberta’s Eastern Slopes faces the very same level of indus-

trialization through clear-cut logging. Allowing this to occur upstream of 1.6 million people and the province’s economic centre is inexcusable. 🌲

For further information please see <http://www.stopghostclearcut.com/>

Gordon MacMahon has a BSc and an MA in Environmental Management from Victoria’s Royal Roads University; Robert Sandford is the EPCOR Chair for Water and Climate Security at the United Nations University Institute for Water, Environment and Health.

Featured Artist – David Mayne Reid



Mt. Thor, Baffin Island, Pastels

Managing Recreation on Public Land:

How does Alberta Compare?

By Adam Driedzic, *Staff Counsel, Environmental Law Centre*



Have you ever wondered if recreational use of public land is managed differently, and perhaps better, in places other than Alberta? A pending report from the Environmental Law Centre compares the legislative regime for managing recreation on public land in Alberta to five American jurisdictions and three Canadian provinces facing similar challenges. The comparisons focus on three legal barriers to implementing recreation policy on the ground in Alberta. These include:

- A clear mandate to manage recreation outside of parks and protected areas,
- The absence of directed revenue for recreation management programs, and
- Questionable protection from liability for trail-related accidents.

The findings indicate that the legislated regime in Alberta diverges from that in jurisdictions thought to be ahead on recreation management and resembles that in other jurisdictions that are struggling. The report identifies how motorized recreation is typically managed relative to non-motorized recreation and explores options for improvement in Alberta under existing law as compared to legislative reform. What follows are summary highlights and general trends from the full report, scheduled for release in June 2015.

Finding #1: How do mandates to manage recreation differ?

In Alberta today the mandate to manage recreation is split between numerous government agencies that administer separate

legislation. Parks and protected area legislation provides a fairly adequate mandate but it is tied to protected land. Outside of protected areas, the *Public Lands Act* provides no clear recreation management mandate and has basically allowed recreational use to be an afterthought to natural resource development. Public access to public land is ‘open unless closed.’ This makes random use the baseline and allows management actions to be perceived as restrictions. There is little direction for the use of existing regulatory tools and several require political decisions. Motorized vehicles are regulated under separate transportation legislation, enforcement officers are being moved from land and transportation agencies to the solicitor general, and municipalities have limited authority and capacity to act. This mandate fragmentation creates uncertainty as to where responsibilities should fall, allows gaps on the landscape, impairs development of recreational infrastructure, and fuels public perception that there are no rules.

This fragmented mandate is fairly opposite to the jurisdictions reviewed. Especially in the U.S., attention to recreational resources is entrenched in the core of public lands legislation. Recreation-related powers and duties are typically consolidated rather than dispersed. In some cases multiple agencies have comparable powers over their respective lands and in other cases one agency will lead on recreation programs across the land base. Most importantly, regardless of how powers are distributed, recreational land management is always someone’s job. In all jurisdictions

reviewed public access is either “closed unless open” or “as designated” with mandatory designation of all trails as open, closed or restricted. Legislation also directs agencies to identify recreational opportunities and develop infrastructure. Notably more recreation management decisions are administrative rather than political but are subject to detailed legislated guidance. Legislation often provides for involvement of user groups and municipalities.

Most jurisdictions have additional motorized-specific legislation that consolidates provisions on machines, user rules, access, enforcement, penalties and funding programs. The scope of motorized programs varies immensely with respect to inclusion of off highway vehicles (OHVs), snowmobiles and street-legal vehicles like 4x4 trucks and RVs. Likewise motorized programs vary immensely in their focus on opportunity provision or impact reduction.

The comparisons also warn that mandates won’t be met without practical administrative capacity, especially for enforcement and infrastructure maintenance. Land agencies may need outside resources including user payments and non-government service provision even if such schemes are controversial.

Finding #2: How is revenue for management programs generated and directed?

In Alberta there is almost no directed revenue for recreation management. In striking contrast, every single U.S. jurisdiction surveyed uses a spectrum of tools to avoid



An OHV trail in Alberta's Bighorn Country. See the next article by Sean Nichols for a photo of the damage OHV use did to this trail in just one year.
PHOTO: © S. NICHOLS

sole reliance on general government revenue. This spectrum includes direct user fees and permits to recover the costs of services or high impact activities, regulatory charges on vehicles and operators, indirect revenue sources such as a fuel tax attributable to recreational vehicles, and unrelated sources such as oil royalties, gaming revenue, and legislative appropriations.

Every state surveyed funds motorized and non-motorized programs with means beyond user fees and permits. General or non-motorized funding largely comes from the indirect sources listed above. Motorized funding came from regulatory charges such as levies on vehicle registrations, backcountry vehicle permits, and mandatory user education cards. The breadth of revenue sources, recipients and uses of funding under motorized programs varies immensely. For example, a narrow program would

use levies on OHV registrations to fund trail enhancement specifically for OHVs. A broad program would consolidate charges against all vehicle types and operators and use it to fund a mix of opportunity provision and impact reduction. These uses include land acquisition, trail enhancement, enforcement, education, search and rescue, emergency medical services, and general agency operations. There are also some examples of directed fines, restitution payments, and community service for environmental damage.

Finding #3: Are recreation managers protected from liability?

In Alberta protection from lawsuits related to trail injuries is better than it used to be. However, this protection comes through general “occupiers’ liability” leg-

islation, which is very complex and provides no guarantee that land agencies and trail groups will not be sued. Risk management practices involve use of further legal instruments like waivers, agreements, and statutory consents that may create more complexity than certainty. Uncertainty warrants insurance and the existing insurance regime may be inadequate. There are very few relevant court cases, which raises the question of what risk really exists. Nonetheless the perception of risk is a deterrent to recreation management action including infrastructure development, engagement of the non-government sector, and user payments. Other Canadian provinces with similar legislation have had similar experiences. In contrast, all American jurisdictions and one province had simpler and stronger liability protections. This usually involves broad protections in recreation-specific



Two of these OHVs were attempting to winch the third out of the mud. The driver of the third was charged under the Public Lands Act. PHOTO: © W. HOWSE

legislation and additional protections in OHV-specific legislation.

Reform considerations

Opportunities to fill these gaps in Alberta under existing legislation are somewhat limited. Lack of agency mandate is the largest issue as all administrative powers must come from legislation. Regional plans, the recreation trails partnership pilot, and merger of the parks and public land ministries could all help the current approach of “shared responsibility” function better. But none of these initiatives can create legislative authority that does not exist.

Revenue generation has mixed potential in Alberta. User fees are possible but require political decisions that may be contentious (witness the apparent backlash to the fees introduced in the March 2015 budget). Permits and other statutory consents may be issued administratively but there’s no requirement that revenue from these measures will be directed back to recreation management. Regulatory charges on machines and operators would require legislative reform but at least there are plenty of models. Revenue from a fuel tax at-

tributable to recreational vehicles or from unrelated sources like casino funds would require legislative reform and there would be opposition as these funds already exist and are spent elsewhere.

Liability protection presents a difficult reform problem. Legislated protections already exist, they are better than before, and there are very few examples of them failing in Alberta or elsewhere. Nonetheless, uncertain liability deters management action so demands attention. Legislative reforms to provide broader, simpler, and stronger protections would be ideal.

How to tackle motorized recreation as compared to general or non-motorized recreation is also a serious issue in Alberta. Provincial initiatives including regional plans and the trails partnership pilot project suggest an OHV focus as thinking turns to formalizing a general recreation system. This is the opposite of all jurisdictions reviewed where general recreation management regimes were well established, motorized-specific programs were developed as this new challenge emerged, and some motorized programs were applied to more than OHVs. At least one report stated that

responding to OHV issues by focusing too intently on OHVs can lose support for management programs. Motorized programs were part of the solution in most jurisdictions reviewed, but these programs were clearly demarcated and other uses received significant attention. If the current provincial trend were to persist in legislative reforms, it would allow vagueness as to whether reforms were for general recreation management or OHVs specifically and, if the latter, would leave gaps in the system.

Legislative reform is the ideal way to improve recreation management in Alberta given that there were shortcomings on every point of jurisdictional comparison. A dedicated recreation management act could establish a mandate, directed revenue and liability protections in one package. It could move more recreation management decisions from the political realm to the administrative realm and enable user-specific programs where appropriate. It would offer much greater guidance than seen under existing legislation and regional plans. However, new legislation is not clearly on the agenda and if it is it might miss the mark. A “trails act” has been anticipated for years but has yet to emerge. This act could create a delegated administrative organization responsible for recreation trails across different categories of public land. While a pragmatic option, delegated authorities are uncommon in the jurisdictions reviewed, contentious where proposed, and had limited functions where adopted. The more common model combined government authority with legislated stakeholder roles at the program level, so this option should be included in any reform debate. There would be much value in developing model legislation for discussion in Alberta. This would help in adopting the best features of other jurisdictions while avoiding the worst. ▲

For the full report visit the Environmental Law Centre website at www.elc.ab.ca in June 2015.

Hummingbird to Hope:

Trail Monitoring, Management and a Wildland Park in the Bighorn

By Sean Nichols, AWA Conservation Specialist



Walking in a Rut: Canary Creek and the Trails of the Bighorn's Upper Clearwater / Ram

When hiking Canary Creek in the Ram River headwaters, near the Bighorn Wildland's Hummingbird Recreation Area, one often gets the sense of walking in a rut.

For kilometre after kilometre of trail, years of doing the same thing over and over again, of driving vehicles down the same path, has exacted its price from the delicate creek valley bottom. Compacted ground has turned into depressions, those depressions have turned into channels, and those channels have become ruts. In a near-textbook example of a positive feedback loop, subsequent traffic gets funneled back into those ruts, which deepen and destabilize.

Two summers ago, a threshold was reached in which the waters in Canary Creek, fed by rainfall and snowmelt, broke through the increasingly thin walls of dirt between the creek bed and the rutted trails. Coursing down new channels, carving out new beds, ponds and eddies, the water reconfigured the structure of the valley and caused significant lengths of trail to cave in. It was utterly inevitable.

We wrote about this at the time (see my story in the October 2012 issue of *Wild Lands Advocate*) and again last year. In 2012 the trails were closed out of necessity, having been rendered impassable by the effects of the water. This prompted a wholesale rebuilding of the trail system up Canary Creek (see my article in the October 2013 *WLA*) by a local off-highway vehicle (OHV) user

group. This questionable rebuilding included several kilometres where vegetation had been simply shoved out of the way by bulldozer. At the time, we observed that there was no reason to believe that the newly-created trail would hold up to use any better than its caved-in predecessor.

The widespread flooding throughout southern Alberta in 2013 closed access routes to the Hummingbird and so usage was down significantly for the year. When

AWA staff went out to perform our annual monitoring trip, we encountered few trail users. This situation was also reflected in the data collected by AWA's TRAFx counters (electronic devices buried beneath the trail that count and record the number of vehicle passes over time), which showed a decrease of as much as 48 percent in OHV traffic in 2013 as compared to previous years.

After two years of floodwater-related interruptions, the Hummingbird area's trail net-



Map of the North Saskatchewan Region (blue outline), with the Bighorn circled.

work opened to a full complement of users in the summer of 2014. TRAFx data counts were back up to pre-flood levels, showing in fact higher numbers than we had ever recorded before. During the two days of AWA's early August monitoring trip we encountered a half dozen different groups of OHV riders, and the same number again of equestrian users. We were thus able to see clearly the effect of this traffic on both the rebuilt and pre-existing sections of trail.

As expected, the observed degradation was worst on the new sections. Repeated OHV traffic uprooted grass and dug tracks into the soft topsoil, compacting it, creating depressions with the potential of becoming channels and thus starting the cycle anew...

Talking in a Rut: Trail Management in the Bighorn's Upper Clearwater / Ram

When discussing Canary Creek in the Ram River headwaters, near the Bighorn Wildland's Hummingbird Recreation Area, one often gets the sense of talking in a rut.

AWA's concerns about the suitability of the Hummingbird area for OHV trails are not new. Nor are the specific impacts and effects discussed above. While events of the last two summers have resulted in a clear illustration of the problem, the current condition is just the unavoidable consequence of an inexorable process.

Of course we have not been silent about this. In addition to articles in *Wild Lands Advocate*, AWA has compiled reports and updates (available on the AWA website at www.albertawilderness.ca/bighorn) as well as written letters to ministers and other government officials. We have also spoken directly to public officials serving in Alberta Environment and Sustainable Resource Development's (AESRD's) lands division.

AWA meets with the AESRD lands division officers every year as part of our Bighorn Wildland Recreation Monitoring Project (BWRMP), now in its tenth year of trail monitoring and reporting. This monitoring includes the year-round measurements of traffic levels on trails provided by the buried TRAFx units. During these meetings, we present our findings and results to AESRD, stressing the importance of addressing these structural deficiencies in the trail network.

Yet when confronted with the reality of this trail system and the necessity of its closure, the response from AESRD has always been the same, and has always demonstrated the same lack of commitment. Sufficiently pressed, land managers will concede that these specific trails are problematic and unsustainable. To date, however, this acknowledgement hasn't translated into any kind of curative action.

Indeed prior to 2014, AWA had not seen any substantive response at all on the part of AESRD. The only "action" ever seen on the

ground was the problematic and misguided rebuilding of the trails we encountered in 2013, done by the local OHV user group.

There are, however, reasons to be optimistic, even if those reasons may be faint.

Some hope comes in the form of the *Backcountry Trail Flood Rehabilitation Program*. This three-year AESRD program arose in the aftermath of the 2013 floods in southern Alberta. It is tasked with performing an inventory of recreational backcountry trails on public lands in the eastern slopes, from the northern tip of the Bighorn down to the border of Waterton Lakes National Park. As part of this inventory, the state of the trails is being assessed with regard to flooding-related damage and a measure of the necessity and/or urgency of repair works is being derived.

For any given trail or site, this measure is based on a multitude of factors, from the extent of the damage, the intensity and nature of use the trail gets, the likelihood of ongoing environmental degradation if the damage is left unaddressed, and so forth. From these assessments, AESRD will produce a priority list of damage sites, and select contracting crews to effect appropriate, site-suitable repairs.

In the specific case of Canary Creek this resulted in the fall of 2014, in a significant stretch of trail being repositioned along a new alignment. This new trail was built up and out of the valley bottom, instead of being constructed further up the slope where



One year later this is the trail shown in Adam Driedzic's preceding article. Now that "brand new" trail is dug up, with many exposed roots. PHOTO: © S. NICHOLS



Here the trail, previously on the right of the photo, is now on the left. The trail on the left soon will likely look like the trail on the right. It too will exhibit root damage and dig-in. PHOTO: © S. NICHOLS

the ground and vegetation are more robust and better able to withstand the impact of the trail. The hope is that this will result in a decrease of disturbance into the creek.

It looks promising, at first glance. But we're still a long way from having actually solved much.

Patching up Symptoms, Missing the Systemic Issues

First of all, this rebuilding doesn't really address many of the underlying issues with the trail network. It is, in effect, a "band-aid" to patch over one specific stretch of problematic trail that ignores the more systemic problems. It may be a more elaborate and better-constructed band-aid than that applied by the OHV users, but conceptually it's not much different.

Due to the terrain in the area, much of the trail network cannot be re-aligned in this way (or even if it could, it would be signifi-

cantly cost-prohibitive to do so). The wider, flatter, more stable regions further down the valleys can have a trail built in this manner, but the valley in the upper reaches of the creeks (and the valleys and saddles connecting this creek to adjacent ones like Hummingbird and Ranger creeks) is narrower, steeper, more densely vegetated, and vastly less stable.

It is in fact in these upper valleys where the most problematic stretches of trail are already found. This new AESRD-built trail is not even being built to avoid the worst damage sites, the inventory and prioritization process notwithstanding. Why? It would be far too difficult to do in those stretches.

It would most likely also be not very effective in the upper reaches either. While re-siting trails further up the valley sides mitigates some of the worst kinds of erosion and damage to the valley bottoms and creeks, there is still significant potential for erosion down

the hillside and consequent siltation into the watercourse. In the upper valleys where the soils are less stable, this potential increases to the point where the benefit of the entire enterprise becomes questionable.

So now what? With some of the lesser-impacted damage sites addressed traffic will still continue to use the trail and still wreak the much more extensive damage recorded at the upper reaches.

This scenario could be avoided if the trail were closed at that upper point, leaving it as an extended dead-end. This eventuality would seem unlikely given the AESRD approach to-date and understandably so. A dead-end trail without a specific engaging destination at its terminus only serves as an invitation to users to continue further, creating their own undesigned trails and frolic areas. A dead-end trail likely would prove counter-productive in other words.

This doesn't even consider the concerns



Fallen flagging shows where the bank has eroded further from last year and continues increasingly to undercut the trail. This creek is very much alive and is damaged significantly by infrastructure like OHV trails. PHOTO: © S. NICHOLS

raised by the increased access to and fragmentation of an otherwise pristine backcountry that the trail network represents. AWA's monitoring and TRAFx data have shown a year-by-year increase in traffic on the trail system. While recent flood-related closures dented peak summer numbers, traffic outside those closures continued the trend seen prior to 2012 of steady annual increases. And, in 2014, numbers increased again (reaching a record peak of 222 vehicles in one day during July 2014).

This increased traffic, increased human presence in the backcountry, increased associated damage, litter, and so forth, put significant strain on the wildlife and the natural ecosystem as a whole, regardless of the specifics of where the trails are sited.

Accompanying a net increase in traffic levels comes a commensurate increase in the number of "bad apples" – unruly or destructive users who won't keep to the trails or respect the regulations governing their use. Every year during official trail closure periods we record vehicles on the closed

trails (sometimes 10-20 per week with the occasional peak being much higher), laying proof to this claim.

So if a trail system is in place, there must be enforcement of those rules and regulations that establish its presence and govern its use. In the Bighorn, as across all AESRD-administered public lands, this enforcement is notable in its absence. While there are occasional enforcement blitzes (most prominently during the May long weekend), the majority of the year sees no one patrolling the trails.

Enforcing Regulations: Whose Job is it, Anyway?

As far as OHV-related enforcement is concerned, this is no longer even AESRD's job – rather this responsibility has been shifted to the Ministry of Justice and Solicitor General. Alberta sheriffs now wear the enforcement badge.

Yet outside the blitzes, the sheriffs are as absent from the trails as are AESRD enforcement officers. This is hardly surprising, in a

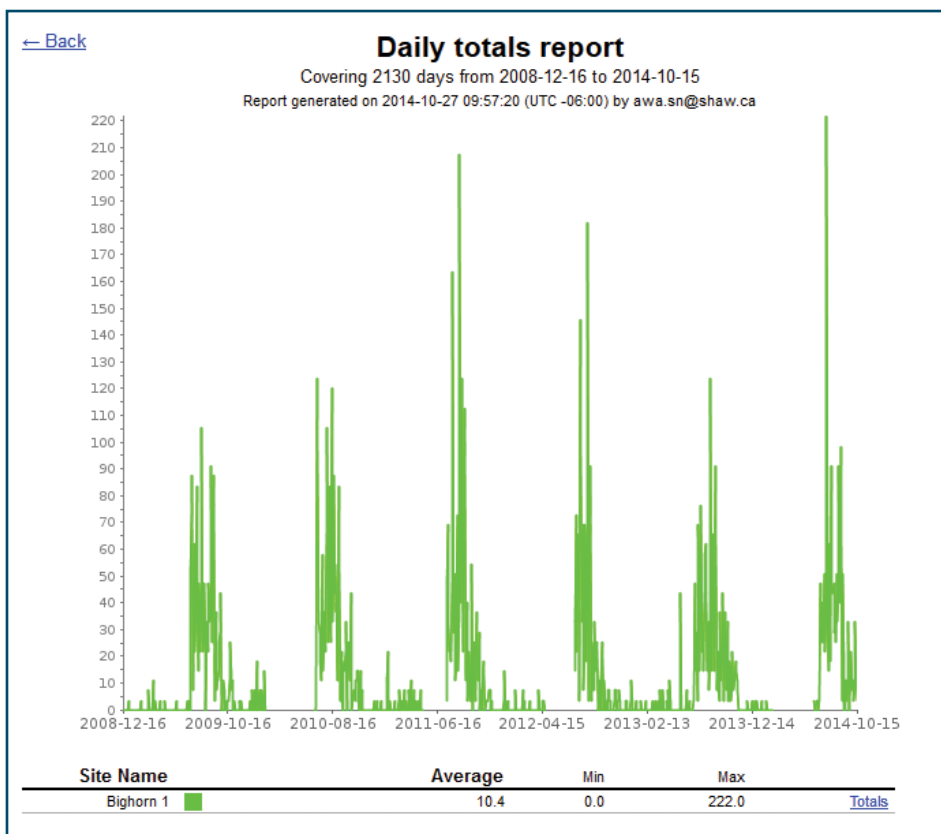
sense: the sheriffs have a large area and mandate of responsibility, of which enforcing OHVs and trail use is only a small part. And, like all departments and ministries, they face increased budgetary constraints, continuously being tasked to do more with less.

One of the more effective agents of enforcement in recent years has actually been an RCMP officer from Rocky Mountain House, Cpl. Wayne Howse, who has personally taken on the task of monitoring and pursuing OHV users who violate the regulations in place.

These violations can often be stunningly flagrant and demonstrate just how unconcerned the worst abusers are about ever being caught and charged. In 2012 Cpl. Howse investigated an OHV rider by the name of Andrew Sharpe who, with a group of friends, "repeatedly [drove] up and down Swan Creek [...]. The OHV drivers were racing each other, performing stunts (commonly known as 'doing catwalks') in the stream, and spinning tires so, eventually, the creek turned brown with mud and silt. [...] The scene of the racing and damaging the spawning grounds was located on a section of Swan Creek where no OHV trail exists."

After this episode, Mr. Sharpe was bold enough to post approximately 90 videos of this and other escapades on YouTube. Cpl. Howse was able to use them as evidence to charge and fine a number of the offenders. Mr. Sharpe's OHV was also forfeited and later put up for auction. (See also the follow-up report by fisheries biologist John Tchir: *Swan Creek Fish assessment and potential effects of OHV use within the stream* – on the AWA website at <http://albertawilderness.ca/archive/headwaters-archive/2013-08-13-swan-creek-fish-assessment-and-potential-effects-ohv-use>)

On the one hand this was a good day for enforcement. Cpl. Howse's tenacity is laudable and greatly appreciated. However, this isn't the way a modern democratic society should function. We have governments and government departments to prevent these behaviours: they are charged to perform these monitoring and enforcement actions as a matter of course. Nature shouldn't have



Daily TRAFx counts from a trail in the Bighorn's Hummingbird area, showing the period from December 2008 through October 2014. Decreased numbers are seen in 2012 and 2013 due to trail flooding and closures, but traffic increased substantially in 2014. CREDIT: © TRAFx RESEARCH LTD.

to rely on exceptional individuals who become so fed up with systemic inaction that they take matters on themselves.

Cpl. Howse has recommended various measures to address this. One of his recommendations was, for example, for the establishment of an “RCMP Environmental Enforcement Position,” an officer who would “work jointly with other partners such as ESRD, Fish and Wildlife” and related government ministries and departments. This is a recommendation that AWA is more than happy to fully support.

So why was this handoff of responsibility from AESRD made in the first place? It is, once again, unsurprising when one considers the primary mandate of AESRD (née SRD). As a ministry primarily concerned with resource development, trails (including OHV trails), trail maintenance and enforcement have fallen under its jurisdiction primarily by virtue of happening to pertain to one of the various uses of the land that AESRD administers through Public Land Use Zones (or PLUZ’, formerly Forest Land Use Zones, or FLUZ’). So trails end up getting relegated to a secondary – at best – priority, and enforcement is all but an afterthought. There’s little, if anything, in the Bighorn history we’ve documented to challenge this interpretation.

So what can be done?

For many years, after all, Albertans have been promised a *Trails Act* that would address these kinds of issues, across whatever jurisdiction. But we seem to be no closer to that goal today than we were as long ago as 2009 when Alberta’s then-ministry of Tourism Parks and Recreation (ATPR) released the *Alberta Recreation Corridor and Trails Classification System* report.

That report recommended: “Trails should not be developed in a manner where they can damage the environment. Special design considerations are required to locate trails through sensitive areas such as wetlands; fragile habitats; [and] soils subject to high erosion.” The report goes on to recommend that “stream or water crossings should be avoided wherever possible. If they are required, *trail alignment and design is critical to*

ensure minimal impact.” (emphasis mine)

If this recommendation were to become law it would hopefully address siting and alignment across an entire trail network, rather than leaving those design issues to be addressed in a piecemeal fashion at specific problem spots. Ideally, it might even raise what for some is the unthinkable – namely that perhaps motorized trails don’t belong in certain backcountry areas in the first place. Such a law could also include some serious attention to enforcement.

In the less-than-ideal world in which we do live, however, this *Trails Act* has yet to see the light of day. Repeated enquiries of government have netted a range of responses: the Act has been written and is merely awaiting the minister’s approval, or the Act is merely awaiting the release of the Land-use Framework regional plans to ensure it will be consistent, or the Act is merely awaiting... something. That something is political will.

In the meantime, it may be best to look elsewhere, somewhere other than AESRD. There is another department that holds trails and trail use as a higher priority, much closer to its core mandate: Alberta Parks.

AESRD’s Backcountry Trail Flood Rehabilitation Program helps illustrate this prioritization. Remember that this program covers all public lands along the eastern slopes from the Bighorn down to Waterton Lakes. That includes all PLUZ’ along the eastern slopes, as well as a large area in the Livingstone-Porcupine. The total budget for this program is \$10 million.

In contrast, Alberta Parks has assigned a budget of \$60 million just for the flood cleanup of Kananaskis Country (not including the \$16 million apportioned to the golf course), an area two-fifths the size.

When recreation is your mandate, administering recreation gets your dollars. The math is pretty simple.

The Bighorn Wildland Provincial Park

This difference in priorities reflects well the two very different mandates of these ministries. It’s why AWA wants to see the Bighorn

designated a Wildland Provincial Park.

This position is not new. AWA has proposed the idea many times over the last several decades, and indeed protection for the Bighorn was promised by the Alberta government back in 1986 – going so far as to be displayed on a provincial road map at the time. Indeed most of the Bighorn was once upon a time within the National Parks System (as part of the *Rocky Mountains Park* before it was shrunk several times between 1911 and 1930, eventually becoming the Banff and Jasper National Parks we know today).

AWA hopes this is an opportune time to re-address this idea, with the development of the North Saskatchewan Regional Plan (NSRP) through Alberta’s Land-use Framework (LUF) planning process.

The North Saskatchewan is one of seven regions into which Alberta has been split along watershed boundaries for the purposes of implementing the LUF’s regional plans. It is the third of those regions to go through the regional plan development process, with the first two being the Lower Athabasca, in the province’s northeast, and the South Saskatchewan, stretching across the southern Alberta, from roughly Highway 1 south.

The North Saskatchewan likewise spans the width of the province, taking in Banff National Park, and including Edmonton on its way to the Saskatchewan border. The area AWA recognizes as the Bighorn includes the nearly 8,000km² area of mostly Foothills and Montane Natural Regions lying between the existing National Park boundary on the west and the Forestry Trunk Road along the east. This area is divided into a core 4,000km² Wildland zone, with an adjacent 3,000km² transition zone, and a further 1,000km² lying within the protected Siffleur and White Goat Wilderness areas, along with the Parks Canada-owned Ya Ha Tinda Ranch.

The NSRP process represents – as with many things – both a danger and an opportunity. Part of the reason why the Bighorn has maintained its pristine character unlike so many other parts of the province is due to the foresight of a number of land use policies that have governed its use. The 1984 *Policy*

for Resource Management of the Eastern Slopes (a.k.a.: “Eastern Slopes Policy”) designated most of the Bighorn landscape as either *Prime Protection* or *Critical Wildlife*, placing significant restrictions on the types of development allowed there. Likewise the 1976 *Coal Development Policy for Alberta* (“Coal Policy”) designated most of the Bighorn as Category 1 land prohibiting exploration, development or any new dispositions.

Yet rumors from the Government of Alberta imply that these policies may be revisited in the process of rolling them into a completed NSRP. This is the danger.

The opportunity is that LUF regional plans are required to identify areas to set aside as *Conservation Areas*. The mechanism by which these Conservation Areas are implemented is not defined, but in practice, both already-completed regional plans have used Wildland Parks as one of the tools to achieve this.

AWA strongly believes that an area like the Bighorn, which remains relatively pristine wilderness, which is habitat for various species at risk, including grizzly bears, bull trout and the Harlequin duck, which has a low existing level of investment from resource industries, which offers good recreation potential (when appropriately managed), and which has already been on the government’s radar for protection, is a prime candidate for designation as a Conservation Area via the Wildland Park mechanism.

AWA’s vision for the Bighorn Wildland Park includes no surface access for industrial development within the Wildland and no motorized recreation within the Wildland. In the adjacent transition zone the Environmentally Significant Areas (ESAs) and Critical Wildlife Zones would be placed under a development moratorium until a proper assessment has been conducted to identify areas requiring protection beyond the core Wildland Park area. Any industrial and recreational activities occurring within this transition zone would need to be conducted to the highest standards in order to avoid ecological impact.

While some of the parks established through those previous regional plans

have, in one way or another, fallen short of this ideal, AWA remains optimistic that its unique circumstances mean that there is a real chance for meaningful protection of the Bighorn.

Among its other benefits, protecting the Bighorn would be an opportunity for the provincial government to secure the headwaters of the North Saskatchewan River, which provides water to the City of Edmonton as well as many other cities and communities downstream. Ninety percent of the North Saskatchewan’s flow emanates from four sub-basins: the Cline, Ram, Clearwater, and Brazeau. Their upper reaches collectively form the Bighorn Wildland.

With the establishment of such a park, appropriate management for these headwaters could be achieved as well as, finally, the chance at appropriate management and enforcement of the OHV use that occurs on the Bighorn’s trail systems – like that in the Hummingbird – and directly affects the water quality in those headwaters.

Get Involved: AWA’s Freshwater Campaign

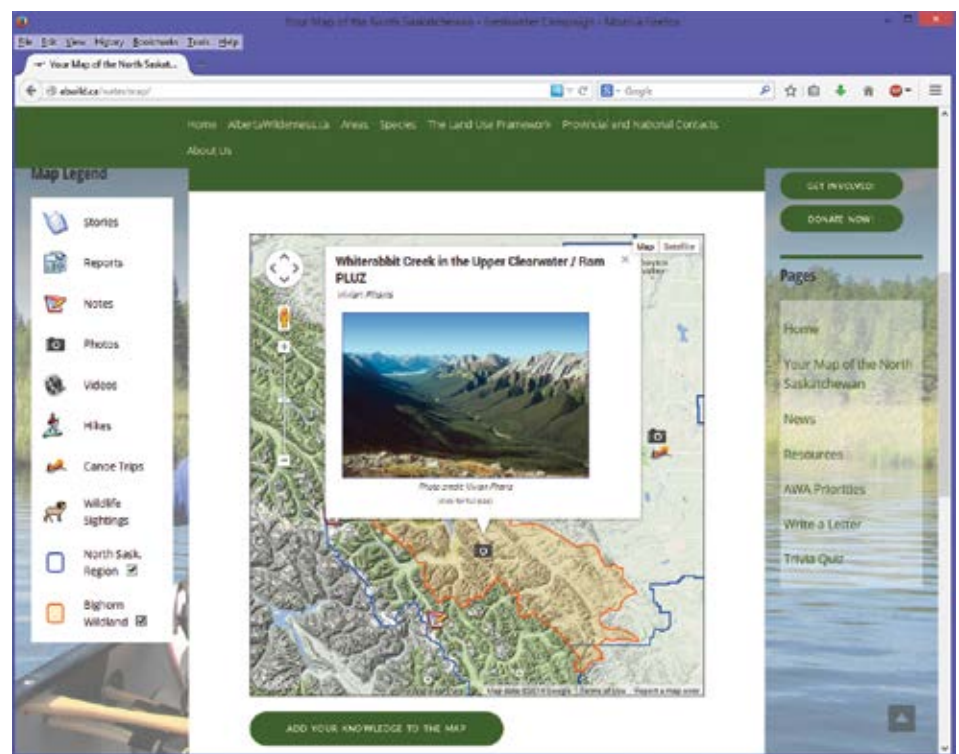
Where the NSRP process goes from here remains to be seen. AWA has its priority is-

suess for which it is advocating, such as the establishment of a Wildland Park in the Bighorn, but so do many others as well.

Specifically, we expect that our members and readers of the *Wild Lands Advocate* who know and care about the Bighorn will have their own ideas regarding its management. For this reason, AWA has started up a *Freshwater Campaign* in collaboration with Mountain Equipment Co-operative (MEC) and all of our members who are concerned about the future of the North Saskatchewan’s headwaters.

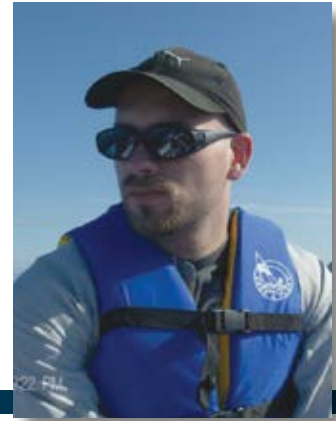
We have built a website that includes information and resources, an interactive map of the area, stories from members and users, tools and opportunities to provide feedback and to publish your own stories. We have events planned for 2015 including hikes and volunteer opportunities (for example, the opportunity to come along on some of the BWRMP monitoring trips referenced above).

We would love for all of our readers to become involved. For more information and details please visit AWA’s Freshwater Campaign website at <http://abwild.ca/water>. 🐾



Screenshot of AWA’s Freshwater Campaign website, showing interactive map.

An Impossible Dream?: Biodiversity in Alberta's Largest Urban Centres



By David Robinson

Planning for ecological functioning is probably not what comes to mind when thinking of urban development but that's exactly what the City of Edmonton and City of Calgary are doing. The City of Edmonton published their *Biodiversity Action Plan* in 2009, after publishing their *Natural Connections Strategic Plan* in 2007. The city aims to enhance species di-

versity by establishing and protecting a network of interconnected natural areas around the city. It outlines a number of other 10-year goals, including reducing pollutants, reducing waste, and updating current infrastructure to meet environmental standards.

In 2011, Calgary also committed to a Biodiversity Plan and, in November 2014, received comments on the second draft of

its plan, cleverly titled *Our BiodiverCity: A 10-year plan to integrate with Calgary's nature*. It promises to incorporate more ecological principles into the management and protection of Calgary's ecosystems and parks. Following the plan, the City hopes to see an additional 20 percent of natural open space in Calgary for increased biodiversity. Both cities formally signed the Durban Commitment, making them participants in the Local Action for Biodiversity (LAB) project. This project is coordinated by a non-profit global organization of over 1,000 municipalities known as ICLEI – Local Governments for Sustainability.

Biodiversity is still a fairly new concept for decision-makers. It was introduced in the late 1960s as "biological diversity" and was not commonly used until the 1980s when the contracted word we use today was adopted. As a concept, biodiversity has a simple, very encompassing definition. In essence, it refers to the variety of life in a given region, or "...diversity within species, between species and of ecosystems," as the United Nations defined it in the 1992 *Convention on Biological Diversity*. To put it simply, an area with an abundance of species and individuals is said to be more biodiverse than an area with few species and individuals. Biodiversity is crucial for healthy ecosystems. Interactions among and between species and their environments facilitate ecological functions such as nutrient recycling, water and air filtration, and pollination.

Biodiversity is declining in regions all over the globe. Here the *Canadian Biodiversity Strategy* lists it as among the most critical threats facing humanity today. According to



Edmonton's ecological network. CREDIT: © CITY OF EDMONTON (SOURCE: NATURAL CONNECTIONS; CITY OF EDMONTON INTEGRATED NATURAL AREAS CONSERVATION PLAN)



Edmonton's ravines constitute a biodiversity core area in the city. PHOTO: © CITY OF EDMONTON

the UN Convention, species extinction rates in this generation have skyrocketed to about a thousand times greater than historic rates. The Convention directly attributes this to habitat destruction and overexploitation, invasive species, and climate change.

Given that human development has such an impact on biodiversity it is a wonder how we can plan to include it as a priority in urban development at all. Traditionally, urban development involves clearing, bulldozing, and building with little or no regard for the land. However, the biodiversity plans suggest that it does not necessarily have to be that way.

Edmonton's plan outlined a number of key challenges to overcome to meet their goals. The city's population has been increasing steadily over the past 25 years; much of the natural land in the region of Edmonton was unprotected and vulnerable to increasing development pressure. Edmonton released a *State of Natural Areas* report in 2006 which determined that a majority of natural areas around the city's river valleys would be lost if land development were to continue using the 2006 practices. In addition to increasing development pressure, increased land costs and limited public knowledge of the importance of natural systems were challenges faced by the action plan.

According to Grant Pearsell, Director of Parks and Biodiversity with the City of Edmonton, securing land for protection is a major challenge. Alberta has no enabling

legislation that allows municipalities to protect forests or individual trees. Forested land is often privately-owned and the city loses much of its forest through landowner activity. Similarly, Alberta municipalities are limited in their abilities to protect wetlands. Current compensation rates associated with the *Interim Provincial Wetland Policy* for offsetting wetland destruction around the city have the effect of accelerating drainage of urban wetlands. With the introduction of the new *Alberta Wetland Policy*, compensation money owing is based upon the price of land at the point of impact. This policy shift should have a positive effect and increase the number of wetlands protected in urban municipalities. A Wetland Task Force, comprised of the City of Edmonton, Urban Development Institute, Province of Alberta, and Sierra Club has been formed to find ways to work together to implement the new wetland policy.

Still, Pearsell stresses that challenges should not discourage the production of such plans. We can advocate for legislative change if needed but we ultimately must work with the cards we are dealt. Edmonton's *Biodiversity Action Plan* has provided the City with the opportunity to embed biodiversity values solidly within its planning framework. For example, during the creation of the biodiversity plan, the City was also updating their Municipal Development Plan (*The Way We Grow*), Environmental Strategic Plan (*The Way We Green*),

and Transportation Master Plan (*The Way We Move*) that guide urban development and land use throughout the city. These integrated policy plans now reflect the biodiversity plan, arguably placing it on an equal footing with other City policies. Terms of Reference for suburban area structure plans have been updated to include ecological information and all new neighbourhoods are designed with natural areas, parks, and other open space arranged in an ecological network. The biodiversity and natural connections plans also influenced the 2010 *Wildlife Passage Engineering Design Guidelines*, which provide transportation designers with specific criteria for incorporating the needs of wildlife in their designs so that wildlife can cross more easily major roadways. The City of Edmonton is now constructing its first wildlife passage for moose in northeast Edmonton and has a major wildlife passage for the Anthony Henday Drive ring road.

These changes were great opportunities to include biodiversity in development decisions around the City of Edmonton. Five years later, Edmonton has all the components needed for a functioning ecological network with approximately 4,000 hectares currently protected in the city. Continued planning for the protection of these components, including restoration projects, will allow for the long-term sustainability of an ecological network in Edmonton. Using projections based on the balance between gained and lost land, the City expects about 5,500 hectares of protected land by 2025. Edmonton is in the final stages of a major ecological mapping project and has identified 14,000 discrete ecological sites within its boundaries. The data will help the city greatly improve its conservation efforts.

The ecological network model has proved to be a powerful tool for Edmonton's development. City engineers were always interested in accommodating ecological functioning but were unsure how best to integrate that goal into their projects. The *Biodiversity Action Plan* and associated plans provide the opportunity for designers and developers to collaborate and allow groups of varying disciplines to approach problems

together. According to Pearsell, Edmonton fostered the creation of the Edmonton and Area Land Trust to expand its capacity and protect land, which the community never had the capacity to do until now.

The success of Edmonton's biodiversity plan will hopefully help inspire Calgary's efforts. Calgary's population is expected to double by 2075, and the city's housing, services, and industry must expand to accommodate that. *Our BiodiverCity* cites numerous opportunities to improve biodiversity in the city. They include conserving and reclaiming wetlands during development of a planned 384 hectare industrial park in east Calgary and establishing a monitoring program by a city waste management facility to assess impacts on adjacent wetlands. In terms of actions, the City proposes to develop an Ecological Integrity Index (EII) for Calgary's parks and natural spaces. This will be a concrete biodiversity scoring system to establish a baseline and track progress towards enhanced biodiversity. The EII will grade habitat health, map and record critical habitat, and track changes in plant and wildlife diversity (including invasive species) within parks. It also will monitor how biodiversity responds to disturbance of the surrounding land. The EII will be used to produce park planning policies and guidelines. The plan will set 2025 targets for restored

natural lands, land fragmentation, and invasive species. The City will also sponsor a research program that will interview Calgary citizens and Alberta urban biodiversity experts to understand citizens' perceptions of urban biodiversity. From this project the city will develop public education and engagement programs that will work with the public's current level of understanding.

Steven Snell, a planner with Calgary's Parks, Planning, and Development department, says this is not the first time biodiversity has been considered in Calgary's municipal decision making. The city had already found some success with previous conservation projects, such as Nose Hill Park and the Inglewood Bird Sanctuary, and established a *Wetland Conservation Plan* in 2004. In Calgary's 2009 *Municipal Development Plan* (MDP), biodiversity was included as a component for conserving and restoring Calgary's green spaces. "*Our BiodiverCity* gives a finer grain of action for the broad policies of the MDP," said Snell. "It aims to create a corporate picture of biodiversity, to engage the conservation ethic in Calgary and brings it from Calgary's signature natural areas into our neighbourhoods."

Of course, such a plan relies heavily on public cooperation. Thankfully, there is strong public interest in the plan's goals. The *BiodiverCity* document notes that a 2014 sur-

vey revealed the majority of Calgary citizens support conserving nature. Nearly 90 percent believe the city's public parks improve quality of life and that an ideal city contains sustainable urban forests with a diversity of trees. Just over 70 percent of respondents believe biodiversity is an essential component of a city park and that individuals can take action to help the environment. "I hope it inspires "rewilding" initiatives to restore a greater ecological function in underused open space, in neighbourhood gardens, in front yards," Snell added. "I hope it continues Calgarians' pride in their parks and city in general."

We can either use nature as a blank slate on which to develop cities, as has too often been the case in the past, or instead grow in response to nature and attempt to include valuable natural processes in new developments. Such plans are important steps in raising citizen awareness about the values of biodiversity and potential threats imposed on it. A significant majority of Alberta's population is found in Calgary and Edmonton so programs aiming to get city residents involved in conserving biodiversity may influence other municipalities to adopt similar projects and develop their communities with biodiversity in mind. ♣



Big Lake is part of the regional biodiversity core area including and adjoining to northwest Edmonton. PHOTO: © CITY OF EDMONTON

A Conservation Easement Goes to Court



By Ian Urquhart

A “Do Over.” That phrase on a Norquest College billboard caught my eye on a February afternoon as I walked in downtown Edmonton. I wondered if any of the parties to a conservation easement dispute that went to court, *Nature Conservancy of Canada v Waterton Land Trust Ltd.*, wished they could have a “do over” – a chance to reconsider and/or renegotiate the sale in 2004 of the Penny Ranch just outside of Waterton Lakes National Park.

The focal point of this court case was a conservation easement the Nature Conservancy of Canada (NCC) registered against the title to the ranch it sold to Tom Olson. Olson owns Olson’s High Country Bison, a family-run bison ranching and meat distribution business. The family’s bison ranches are dedicated both to the conservation of wild bison and to the restoration of bison habitats. The NCC regis-

tered the easement, courted Olson to buy the ranch, sold the ranch to Olson, and then accused Olson of not adhering to the terms of the easement. The NCC’s complaint centred on the new fencing Olson erected as part of his bison ranching operation.

Conservation Easements

Conservation easements are important means to encourage private landowners to embrace public interest goals such as protecting, conserving, or enhancing the environment. The Alberta government created these legally binding provisions in 1996. They are now outlined in Part 3 of the *Alberta Land Stewardship Act* (see Carolyn Campbell’s examination of easements and other ALSA private land conservation initiatives in the October 2009 edition of *WLA*).

Conservation easements restrict the uses of

the lands to which they apply; a landowner cannot use her land in any way she sees fit but must instead ensure her use of her property conforms to the conservation purposes specified in the easement. Such restrictions generally reduce the market value of the property (the land would be worth more if it was not encumbered by a conservation easement). A property owner who donates a conservation easement to a conservation charity (for example, the Edmonton and Area Land Trust) will receive a tax receipt for the easement’s value.

Unlikely Adversaries

Given their ambitions and reputations, you would think there shouldn’t have been an easier conservation easement to negotiate and implement than one between the NCC and Tom Olson. No one can quarrel with the important conservation role the NCC has played in Canada. The NCC’s partnerships with individuals, corporations, foundations, and governments have helped to protect more than 2.7 million acres since 1962. For Larry Simpson, the Alberta Regional Director of the NCC, the Penny Ranch sat in the part of Alberta that is, “from a conservation perspective, the most important private landscape in the province to be conserved.”

Olson’s conservationist credentials are as impressive. His four bison ranches aren’t content “just” to restore plains bison, an important conservation goal in itself; they also aim to restore native grasses – to restore the native fescue habitats that sustained the plains bison over the centuries this species dominated the prairies.

But Justice Jeffrey of the Alberta Court of



The adversaries in Nature Conservancy of Canada v Waterton Land Trust Ltd. both care deeply about the restoration of the plains bison and the native grasses the bison thrived on. PHOTO: © R. BLANCHARD

Queen's Bench noted that, despite these ambitions and reputations, "(s)ubmerged below the surface... lurked a minefield of complicating issues." That minefield materialized as a fence. The NCC alleged that Olson violated the conservation easement by installing new perimeter fencing around the ranch. Olson, for good reasons, wanted to do as much as possible to keep his bison on the ranch's 12 quarter sections. The NCC insisted this new fencing violated the conservation easement's intent to ensure the perimeter fencing wouldn't restrict the movement of wildlife.

Justice Jeffrey decided this case in favour of Olson in 2014 nearly a decade after this dispute erupted, like the Rockies, out of the Prairie north of Waterton Lakes National Park. The Justice agreed with Olson's description of the conservation agreement he and the NCC negotiated. He also concluded the new bison fence didn't breach the easement's fence height terms. Justice Jeffrey further concluded that, due to the NCC's failure to issue a tax receipt to Olson for his donation by August 31, 2005, the Conservancy owed Olson damages of more than \$700,000.

The Penny Ranch's Ecological Appeal and Health

As noted above, the NCC regarded securing and protecting private lands north of Waterton Lakes National Park as central to the Conservancy's mission in Alberta. The judgment in *Nature Conservancy of Canada v Waterton Land Trust Ltd.* suggests the NCC regarded the Penny Ranch as strategic. Larry Simpson described the ranch as "special," as containing "mostly intact habitat," as "an important place." These attributes led the NCC to try to persuade, unsuccessfully, the original owner of the ranch to place a conservation easement on the property. When the ranch was advertised for sale in 2001 the NCC purchased it for \$3.3 million and then leased the lands out to cattle ranchers.

Cattle ranching damaged the ecological health of these lands. A baseline biophysical survey commissioned by the NCC and completed in March 2003 concluded that lower elevation rangelands were unhealthy "due

to cattle grazing." Perhaps the NCC could be excused for not taking measures to try to restore these rangelands before it received the survey report. It's less understandable why, after the NCC received this report, the organization allowed grazing practices to continue that contradicted the Conservancy's land conservation ambitions. The survey identified three strategies for restoring the health of the ranch's landscape; Justice Jeffrey reported that the NCC didn't implement any of them and allowed overgrazing to continue during the few years it owned the property. The Justice accepted the conclusion of a professional rangeland agrologist that the health of the landscape only improved after Olson purchased the land from the NCC. The decision concluded that "the rangeland health of the Penny Ranch was very poor when the NCC owned it and improved after Olson's taking over possession and stewardship of it." To that end, given the poor health of the landscape, Olson rested the property after he purchased it rather than immediately putting 200 to 250 bison on the ranch in 2003.

Negotiating the Sale to Olson

In 2003 the NCC decided to sell the ranch subject to a conservation easement. It listed the ranch for \$3.3 million and said it would offer a tax receipt for the difference between the ranch's appraised value with the easement (\$2 million) and a purchase price of \$2.5 million or more. The NCC knew of Olson's efforts to rehabilitate native grasses on his bison ranch in southeastern Alberta. Given this conservation pedigree the NCC regarded Olson as "a good prospect" for purchasing their ranch.

For his part Olson agreed with the NCC's objectives. He was prepared to pay fair market value for the ranch (meaning the value as if it wasn't encumbered by the conservation easement) and accept a tax receipt for the very substantial donation he would be making. For three months Olson negotiated with the NCC over the sale; Margaret Green, the NCC's Director of Land Conservation, had complete authority to negotiate and close the sale of the ranch on behalf of the Conservancy. Only Green had direct discussions with

Olson. Justice Jeffrey viewed those negotiations as "amicable and constructive. Both parties shared similar environmental stewardship and sustainability objectives." At trial Olson testified: "Margaret Green wanted me there, and she wanted me to be there because I had a record of taking care of the land." Olson offered to purchase the ranch for \$3 million. The sale closed in August 2014. So far, so good.

Controversy Erupts: The Fencing Provisions

You wouldn't be reading this if the NCC and Olson didn't disagree profoundly about whether the conservation easement allowed Olson to erect a new perimeter fence to keep his bison on the ranch. Olson testified that he and Green discussed what type of fencing would be needed to do that. He stressed he wouldn't even have made an offer to purchase the ranch if he couldn't erect adequate fencing: "I didn't even make the offer till I told her that I was going to re-fence the property of a bison fence, at the time I planned to put up a six foot fence. So she was fully aware that was the deal before I even put the offer in."

Justice Jeffrey accepted Olson's "clear and credible" testimony on this point. It appears that he had little, if any, contrary testimony to compare against Olson's recollections. Margaret Green was "a very reluctant witness" who didn't want to testify at all during the trial. She offered reliable testimony, in the Justice's view, on the few matters she could recall. But, she couldn't recall any of the specifics of the meetings she had with Olson about selling the property. The NCC's legal position at trial wouldn't have been strengthened by the fact that the National Board of Directors of the NCC only set a minimum sale price (\$2,562,500) for the ranch. It didn't specify any other terms. Also, the Alberta Regional Board of Directors didn't review or sign off on any of the amended terms Green and Olson negotiated. Justice Jeffrey concluded that Larry Simpson, for his part, "took no issue with what Green had negotiated with Olson on fencing." Green reported to Simpson.

The NCC's Concerns: Wildlife Movement or Negative Publicity?

One question Justice Jeffrey wrestled with in his decision was: "What motivated the NCC's concerns with the new perimeter fence Olson erected?" Olson began to replace the perimeter fencing on the Penny Ranch immediately after the ranch sale closed in August 2004. His new perimeter fencing wasn't barbed wire; it was a four-strand smooth wire fence, the middle two wires of which would be electrified when the power was turned on. The highest strand on one version of this new fence would be 66 inches high but it could be lowered to 54 inches when bison weren't in that area. The highest strand in the second version of the fence, the version Olson said would be used for most of the new fence, would be 60 inches high; it could be lowered to 48 inches.

One month after Olson started to replace his fences he started to receive calls from the NCC. The Conservancy was receiving complaints from Olson's neighbours about the height of the new fence and what it would mean for wildlife movement. Simpson testified: "And so people who were calling were – how could we let – you know, they had the attitude of how could we, the Nature Conservancy, let this happen. They were very concerned. They could immediately see the size of the fence and could see that there would be problems in terms of wildlife movement through this area."

Worries the new fence would impede wildlife movement then might have explained the NCC's concerns, concerns that led to the court case against Olson. But, as noted above, Justice Jeffrey didn't believe the NCC

disagreed with Olson's position on the need for new, at times higher, fencing to contain his bison. Instead, the Justice concluded that public relations concerns motivated the NCC to demand changes to Olson's fencing, "not its purported concern about the additional impediment to wildlife migration presented by his New Fence. The NCC, and particularly Simpson, was worried that the animosity many neighbours felt towards Olson would negatively affect its reputation." Simpson felt these complaints showed that the Conservancy, with approximately \$40 million in donations already at work in southwest Alberta, was "on trial."

The 'small town politics' at issue here was the local affront of someone from Calgary coming down and putting bison on the land in 'cattle country.'

– Justice P.R. Jeffrey

Justice Jeffrey also concluded that many of the complaints against Olson's new fencing "were motivated by self-interest not wildlife migration." Neighbours' freedom of movement, to ride horses across the ranch property to hunt and fish for example, was affected by Olson's arrival. Bison ranching wasn't part of the local culture; it disrupted the way things normally were done. Some didn't like it for those reasons alone and wildlife movement concerns camouflaged such self-interested concerns.

The Fence and Wildlife Movement

If Olson's new fence effectively limited wildlife movement then perhaps it doesn't matter whether 'small town politics' or a genuine concern for wildlife movement inspired the criticisms of Olson's plans. Justice Jeffrey wasn't persuaded by any of the testimony he heard that the new fence would make it more difficult for wildlife to move through the area. In fact, he was persuaded by video footage, presumably introduced by Olson, that the new fence didn't present any impediments to wildlife movement on, off, or through the ranch. The new fence, he concluded, "was not shown to reduce wildlife diversity at the Property or wildlife migration across the Property."

On the Importance of Care

Some of Alberta's most precious landscapes are found in that 75 percent of the province's White Area that is privately owned. In these areas conservation easements are vital tools for protecting and restoring critical habitats. Perhaps the most important lesson from this lengthy, expensive dispute and court case is about "care." Care for the land is the ethic that rests at the heart of the conservation easement concept. In order for that care to be implemented effectively and fairly the parties negotiating these conservation agreements need to take great care as well. "The overall take-away message is to achieve that important underlying purpose," the University of Calgary's Professor Sharon Mascher said, "care has to be taken in clearly setting out the arrangement and protecting that interest." ▲

Featured Artist
David Mayne
Reid

No condos...yet,
Acrylics



Flying a Chequered Flag at OHV Races in the Livingstone-Porcupine

By Sean Nichols, AWA Conservation Specialist



Since 2011, ten officially authorized OHV (typically motocross, or dirtbike) racing events have taken place on public lands in the headwaters areas of Southern Alberta's Livingstone-Porcupine. As most readers of *Wild Lands Advocate* know, this area is very important for the security of eastern slopes headwaters species and does not have a designated trail network. Despite this, no environmental or field inspections of the races are carried out during these events and Alberta Environment and Sustainable Resource Development (AESRD) officers typically do not attend the events.

When questioned about the authoriza-

tions, AESRD staff confirmed that these events were granted permission via *Temporary Field Authority* (TFA) permits – a tool originally intended to facilitate industrial access, that was being “jury rigged to fit recreation use.” Because of the nature of the TFA (the only regulatory tool available), there are no registration, administration or other fees levied by AESRD for the events. There is also no mandate for AESRD staff to attend. To describe this approach as “hands-off” may overestimate the government's attention to these events.

AESRD's on-the-ground inspections are limited to performing pre- and post- event audits for a race that typically accommo-

dates 100 participants and may have up to 200 further spectators. Races “have to use existing trails” but since an area like the Livingstone-Porcupine doesn't have designated trail networks, it's hard to determine what is (or is not) a legitimately “existing” trail and what might have been created only a few days or weeks before the application was tendered. Instead, AESRD ostensibly sees their role as primarily “educational,” one in which they use the application process as an opportunity to “educate” the applicants about the fact that they will be holding the events in a sensitive wilderness area.

This raises the obvious question about why the races need to be held in these green zone public lands to begin with? The oft-given response is that they are there for the scenery. Yet most participants are heavily absorbed in the action of the race itself, only paying attention to their surroundings to the extent that they need to be able to navigate them. There are plenty of private lands that would offer similar terrain challenges to the racers, and a potential revenue stream to the landowner, especially where the land is agriculturally marginal.

Money perhaps may be the core of the issue. Race organizers would have to pay an extra fee to hold these events on private lands, yet without so much as an administrative fee, they can hold races in sensitive public headwaters for “free.” Of course, these events are free only to their organizers and participants. Albertans who value these landscapes for more than their raceway potential and the na-



What damage could this possibly do to streams in the foothills? PHOTO: © AWA FILES

tive species (some threatened or endangered) that see their habitat destroyed by these events pay dearly for the freedom the racers enjoy.

All of this raises the question of why the government so willingly authorizes this destruction? This is the real stumper. Proposals for the permits for these events are run past Alberta Fish and Wildlife. AWA asked: has Fish and Wildlife ever recommended denying a permit only to see that recommendation overruled? Well, yes. They have. AWA also asked: has a permit for a racing event ever been denied? Well, no. One hasn't.

It's the kind of headwaters story we've heard over and over again.

With so many "obvious" recommendations to make, it's hard to know where to start. First and foremost, these races don't belong on public lands, especially those in sensitive headwaters areas. If government feels this blight may be welcome then Fish and Wildlife need to have a veto in the permit process. If they recommend against approving an event then the event shouldn't take place. AESRD also needs to take on a much stron-

ger role during the application process than simply one of "education." At the very minimum, there need to be fees associated with the granting of approvals. For one, these fees should be dedicated to the sorely needed, yet sorely lacking, enforcement function. For another, this may help spur a market response to the applications: if government doesn't give these events a free pass for them to take place on public lands then organizers may be prompted to seriously consider hosting these events on the already disturbed white zone lands. That's where they belong.

Field inspections need to happen and AESRD staff need to be on-hand to carry out inspections during events. A comprehensive inventory of existing trails in the Livingstone-Porcupine needs to be created. Caps and capacity limits for cumulative impacts need to be set (currently there are none). Regulations for noise levels also need to be in place (again, there is currently no legislation in place for this). Of course, ideally these regulations and permitting would be extended to cover individuals, and not only to or-

ganized events. Likewise, existing biodiversity timing restrictions (for example prohibitions on activities taking place between December 15 and April 30 in the Key Wildlife and Biodiversity Zones south of highway 1) only apply to industrial or commercial events. Such restrictions need to cover races such as these.

A few, but only a few of these ideas are apparently being addressed now (for example, AESRD is generating an inventory of existing trails). Others may be considered under the upcoming South Saskatchewan Regional Plan (SSRP) Recreation Management Framework. AWA strongly encourages the prioritization of that process and looks forward to seeing increased assessment, accountability, and enforcement.

Right now, a significantly more stringent inspection regime is in place for industrial disturbance of these headwaters, yet recreational users are given a pass when causing the same level of damage. We need to level the metaphorical playing field, so that the physical one remains intact. ♣

Featured Artist – David Mayne Reid



Still day on lake edge, Acrylics

“Grasslands” – An Inspired Documentary Film



By **Brittany Verbeek**, *AWA Conservation Specialist*

AWA's outreach program kicked off the New Year by hosting a film screening at the AWA office building in Calgary. The new Canadian documentary called “Grasslands,” the chance to hear from the film's director Ian Toews, and perhaps the irresistible smell of fresh popcorn attracted a sold out crowd for the evening.

This documentary would make even the most extreme prairie naysayer develop an appreciation of its beauty and importance. It is a powerful film. Trevor Herriot, naturalist, author, and one of the interviewees, asks you to simply “experience a place of grass.” Many amazing scenery shots of wide-open prairie make the viewer appreciate the great plains of North America; historically one of the largest unbroken eco-zones, it now stands as one of the most endangered with only approximately 18 percent left intact.

The film emphasizes the biological and cultural significance of grasslands. It shows the amazing resiliency of grasses – their ability to survive under all extreme weather con-

ditions including wind, cold temperatures, snow, flood, and drought. The only irreversible damage to them has been delivered by plow or machine. The mixed grass landscape thrives courtesy of fire and large mammal grazing. They stimulate vibrant second growth in an impressive natural rejuvenation process. Trampling also alters micro-habitat structure creating new niches for other grassland species. Examples of the intricacies and interconnectedness of prairie ecosystems are beautifully woven through the entire film.

Leroy Little Bear is interviewed in the film and describes the connection his people have had with this landscape for generations. “When buffalo started to disappear from the land,” he said, “a large part of the spiritual and cultural being of First Nations also disappeared.” Here the film powerfully demonstrates how grassland species are an integral part of Blackfoot rituals and ceremonies. They are essential to identity.

The film is shot with an Arri Alexa state of the art camera and brings the sights and

sounds of wild grasslands to the screen. Greater sage-grouse dance on their leks, bull elk bugle in the morning mist, prairie dogs dart in and out of their holes, and rattle snakes slither silently through the grass. Gordon Hempton, a wild sound recordist and interviewee, admires the rare exceptional acoustic quality of the grasslands. The film captures prairie sounds as sharp as the chirps of a songbird and as subtle as the rustle of wheatgrass in the breeze.

The documentary was filmed primarily in Saskatchewan's Grasslands National Park, but it includes footage from other prairie locations in Alberta, Montana, and North Dakota. Grasslands National Park is highlighted as being among the largest legislatively protected grassland areas in North America. Parks Canada, along with the help of many First Nations' and ranchers' traditional ecological knowledge of the land, has reintroduced genetically pure plains bison to the park and also allows sustainable cattle grazing. Bison, an umbrella species that has such an important role on the landscape, are once again thriving in the park. An initial herd of 71 bison were reintroduced to the National Park in the winter of 2005; by 2013 the herd had grown to roughly 330 adults and 40 calves. The film offers powerful imagery of the reintroduced bison re-discovering the very same wallows to roll in their ancestors used centuries ago.

The film is poetic – through it we see the way things were to what they are now and where we are heading. There's hope in this cautionary tale that encourages us to cherish this threatened, sometimes underappreciated, part of our natural heritage.



The plains bison – an iconic species central to every facet of plains Blackfoot culture and grassland ecosystems.
PHOTO: © D.J.EVANS

AWA's Wilderness Around the World Talk Series Takes Edmonton Audience on a Fascinating Tour of Namibia

By Sean Nichols, *AWA Conservation Specialist*



As the second instalment in its *Wilderness Around the World* series of Edmonton talks, AWA was privileged to present Lu Carbyn on January 22 as he spoke about his home country Namibia in his talk *Namibia: Wilderness Between Two Deserts*.

Despite its occasionally hostile climate and its location sandwiched between areas of inhospitable desert terrain, Namibia supports a surprisingly vibrant array of plant and animal biodiversity. Lu took the audience on a tour through this diverse wilderness area via photos and stories from his past, when he grew up in the region.

Some of those pictures and stories served as a reminder of how much places like Namibia and Alberta can have in common, despite being at opposite ends of our planet. Both have their own brand of severe weather and arid climates; both are sparsely populated with ranching- and resource-based economies that can exact a toll on a pristine landscape.

With only two permanent rivers in a land area one and a quarter times that of Alberta, Namibia's wilderness areas are utterly dependent on a delicate groundwater balance and highly sensitive to any changes brought about by humans.

Differences and similarities – the differences found in wilderness areas around the world and their frequent similarities – is a theme underlying the *Wilderness Around the World* series. After visiting Argentina and now Namibia, the series will go on to take audiences through Bhutan and Jamaica before wrapping up with Ethiopia on April 30 and Iceland on May 28.

AWA thanks the Wildbird General Store for their support with this talk series, and Jackson Power for hosting.

In Memoriam Bill Hall and Kay Wallis

In late winter two fine Albertans and friends to Alberta Wilderness passed away. We are honoured that the families of Bill Hall and Kay Wallis chose to designate memorial gifts and tributes to AWA in memory of their loved. The grief and sorrow we experience when those we love leave us is always difficult and healing takes time. These memorial tributes will help AWA build a legacy in their names – a legacy of promoting and preserving wild spaces and the wildlife that depend on those spaces.

Kay Wallis (86), mother to John and Cliff (*AWA Board Treasurer*) was a beacon of light at so many of AWA's functions through the years. We will miss her vibrant and amazing strength. Kay was a woman who travelled the world, shared her stories and enjoyed a good glass of wine; Kay was swimming 66 lengths at the

local swimming pool until last fall.

Bill Hall (77), was known to many for his work within the Fish and Wildlife Division. A highly respected and recognized public servant, Bill's memory will live on in his family and all those he knew in work and retirement. We will always remember fondly his active life and contributions he made to the people and ideas he cared about; his struggle with Alzheimer's is a poignant reminder to enjoy each day's simple pleasures.

We offer our sincere sympathy and appreciation to the friends and family of Kay and Bill. Thank you for choosing AWA as one way to remember and honour their lives.

- Christyann Olson

Updates

2015 NorAm Nordic ski race

The January 2015 NorAm Nordic ski race in Banff National Park marked one more in a long line of commercial enterprises proposed by Parks Canada in our National Parks which take no heed of the irreplaceable natural values of the park. Increasingly it seems that the “ecological integrity” role or purpose for our national parks is being lost in a headlong rush to exploit them for their business potential.

Comments were invited in November 2014 on the 2015 NorAm test event which was “intended to evaluate the course for its appropriateness for a FIS level event proposed for 2016.” The full race in 2016 has apparently not yet been approved, and will be subject to a Detailed Impact Analysis, but Parks Canada’s recent track record suggests that anything other than full approval would be surprising.

In a December 2014 letter, AWA wrote to Parks Canada to express concern with the “ongoing and deliberate efforts Parks Canada is taking to commercialize Banff National Park.” The 2015 planned NorAm race was, in AWA’s opinion, “another in a series of events and developments that should be taken to the gateway communities outside the park leaving and ensuring Banff National Park truly is protected with wild spaces and the wildlife it is intended to support.”

AWA expressed its grave concern with “the precedent being set by siting events such as this race within a Declared Wilderness Area and the Fairview Wildlife Corridor, disrupting those areas with extensive impacts from not only the race itself, but spectators, infrastructure, support and logistics-related activities.” AWA believes that such activities are entirely inappropriate in our national parks and are not driven by any public demand but simply by the commercial interests of private companies. Parks Canada’s response that “less than 25 trees will be removed, most of which are

only several metres tall,” did little to dispel the concern.

The NorAm event was by no means the first such event to take place in our national parks. Former Banff National Park superintendent Kevin van Tighem has expressed similar concerns on many occasions previously. “We are on the verge of losing twenty years’ worth of hard and principled work by public servants to respond to broad public concern by establishing firm limits on commercial development,” wrote van Tighem in 2013, in response to proposed management changes in the park. “There is absolutely no public support or demand for these developments - they serve only the commercial interests of private companies who have access to senior politicians.”

Such activities are often justified by Parks Canada as “improving visitor experience,” though, coming hot on the heels of the recent laying-off of on-the-ground National Parks staff, this is hard to accept! Other recent developments in our national parks include:

- A resort lodge planned at Maligne Lake was turned down in July 2014.
- In February 2014, Parks Canada changed the lease area of the Marmot ski hill in Jasper, despite opposition from its own scientists and from environmental groups. The changes were discreetly (some would say deviously) hidden away in a bill establishing the Sable Island National Park Reserve off the coast of Nova Scotia.
- In January 2013, plans were announced to allow summer chair lift operations and tourism into formerly secure grizzly habitat in Banff National Park, despite previous promises that this would not happen.
- The Banff Marathon was held in the Bow Valley Parkway in 2013 and 2014, despite safety concerns for both racers and wildlife.
- Parks Canada ignored enormous public

opposition to approve Brewster’s proposed glass walkway in Jasper National Park. Bow Valley Naturalists at the time described this example of commercialization as a “contrived thrill-seeking development.” The structure was opened in May 2014.

- In 2012 AWA opposed the planned Grand Fondo bike race in Banff NP, commenting: “Such events are inappropriate in that they do not interpret park values and are incompatible with a mandate to protect and interpret natural systems.” Sure enough, the 2012 race was turned back because of a family of grizzlies feeding beside the Bow Valley Parkway. But this did not stop the event being run from taking place in 2013 and 2014.

- Nigel Douglas

Commercial Fishing in Alberta: It’s History

All lakes in Alberta were closed to commercial fishing on August 1, 2014 following a rigorous third-party review on the long-term viability of the province’s commercial fishery. In 2011, ESRD contacted Dr. Peter Colby, a fisheries management expert based in Ontario, to conduct an assessment of 12 commercial fishing lakes in northwest Alberta to determine if commercial fishery management practices were scientifically judicious and consistent with internationally-recognized sustainable practices. In addition to Colby’s 2012 report, provincial biologists assessed the remaining lakes (approximately 100) in the province that were open to commercial fishing. The reports concluded that Alberta’s commercial fishery practices were unsustainable due to: habitat loss, overharvesting, management costs exceeding commercial catch values in many locales, and conflicts between fisheries managers and different groups of anglers.

Alberta Wilderness Association congratulates the Government of Alberta on its

undoubtedly difficult but environmentally responsible decision following the report's findings. Last fall we spoke to Dr. Mike Sullivan, Provincial Fish Science Specialist with Alberta Fish and Wildlife Division of ESRD about this policy change. He said that decisive actions such as this one are needed from the government. "Closing the commercial fishery is an unfortunate casualty of development in Alberta," Sullivan said. "It's unfortunate, but we are now on the road to recovery." Sullivan also noted that the circumstances leading to the decision were sad. Lakes and fish have traditional, economic, and social values, all of which were compromised as a result of the situation before the closures.

Colby interviewed a number of scientists and stakeholders in preparing his report. Provincial biologists expressed frustration over the amount of resources going into dealing with recurring issues related to commercial fishing practices when there were other pressing issues such as mitigation or recovery of habitat destruction from industrial development.

Commercial anglers were generally frustrated with the situation as well. With their businesses experiencing problems as a result of quota changes, seasonal closures, and gear regulations, many commercial fishers reported that they were nearly bankrupt and desired compensation for costs associated with management conflicts and time spent at meetings and consultations. Colby cited this as evidence of an unsustainable system. Sport fishers were sympathetic to the commercial fishers' situation, but shared a common sentiment with First Nations: fish catches were declining and management should have changed to reflect that. They also reported that distrust of commercial fishers toward regulatory agencies and conflicts between all angler groups were rampant. Domestic and First Nations fishers said there was an urgent need for a stakeholder advisory group, for a neutral party without "axes to grind."

Will this decision be permanent? The report stated that sustainable management of fish stocks would be possible at many

of these lakes, but would require stable fish populations, elimination of gill-net fishing, strict enforcement of regulations, and formal binding agreements to ensure cooperation among all fishing groups. Sullivan suspects that it will take decades for lakes to return to an ecological equilibrium. Even then, considering how many changes would have to be in place compared to previous practices, we likely would not see a "reopened" fishery.

- David Robinson

AWA attends workshop on NSRP Environmental Management Frameworks

The process for the North Saskatchewan Regional Plan (NSRP) continues deliberately. A series of workshops on the associated Environmental Management Frameworks were held in central Alberta cities through February. AWA staff participated in the workshop held in Rocky Mountain House on February 12 where we provided input on the three frameworks being drafted for inclusion with the plan.

Those three frameworks are a Water Quality Management Framework, an Air Quality Management Framework and a Biodiversity Management Framework (BMF).

All three frameworks are conceptualized around a set of measurable indicators, each one having a threshold level that, once surpassed, will trigger specific management action. That management action should investigate the cause of the indicator passing the threshold and propose specific efforts to bring it back to nominal levels. Beyond the initial "trigger" thresholds, there are further "target" and "limit" thresholds: the attempt will be to keep the indicators' measurements below the targets; the limits represent the points at which environmental quality has become unacceptable.

While specific lists of indicators are already outlined for the Air and Water Quality Management Frameworks, the BMF remains in a preliminary form with the indicators yet to be drafted. Discussions still appear to be underway regarding the approach to take to choose indicators. (For example,

should they be based on specific species, or should composite indices be used?) It is noteworthy that even though the last Land-use Framework Regional Plan (that for the South Saskatchewan) has already been released, its associated BMF still remains on the horizon and is no closer to completion than the one for the NSRP.

At the workshop, AWA registered concerns regarding how the various indices are measured and whether their proposed designs would truly be able to capture the environmental state of the region. For example, the Water Quality Management Framework only proposes to place permanent long-term monitoring stations along the river's main stem. This might mean that local threshold excesses in the tributaries that could be devastating for fish spawning would be diluted (or rendered negligible) by the time they reached the main stem monitoring station. Necessary action wouldn't be triggered.

AWA also pushed at the workshop for tighter monitoring standards, standards adequate enough to ensure that such local deviations would be detected.

- Sean Nichols

Stop Ghost Clearcut

A group of landowners in the Ghost Valley are extremely concerned about the rapid clearcutting in the Ghost River watershed & Bow Basin (see the article by Gord MacMahon and Robert Sandford in this issue of WLA). And they have become very vocal and active in recent months. These residents no longer wish to take a backseat in the land-use decision making that directly affects the community they live in. As their name suggests, the StopGhostClearcut coalition is calling for an immediate moratorium on clearcut logging in the Ghost Valley. Similar to AWA, this group is not anti-logging but does not agree with the ecologically damaging logging practices currently taking place and the lack of transparency in what passes for a planning process for harvesting timber in important headwaters. They would like to see science-based explanations for clearcut logging the Ghost area

since this area is critical to clean water, flood mitigation, and wildlife habitat.

The Ghost Valley lies in the Bow River Basin and includes the headwaters of the Ghost River and Waiparous Creek in the west, Joshua and Jacob Creeks in the south, and the Atkinson tributaries draining into the Red Deer River Basin in the north. Significant clearcut logging is currently ongoing throughout the entire area. Some compartments have already been logged intensively; others are included in planned upcoming harvests.

One major catalyst for the birth of StopGhostClearcut was the discovery that the South B9 Quota harvest plan, part of Spray Lake Sawmills' Detailed Forest Management Plan, allows them to condense a 20-25-year harvest plan of 900 hectares (5,300 truckloads) into potentially three years! Surely ESRD must have a good reason for allowing this acceleration, right? ...Nope. This group had to dig to get even a rudimentary explanation from ESRD; the department's reasoning remains inconsistent.

StopGhostClearcut has raised the alarm to the fact that the forest hydrology data supporting the forest harvest plans were completed in 2004... prior to two major flood events in 2005 and 2013. The Ghost Valley, as some would have seen firsthand on AWA's Ghost hike last June, has many natural springs and wetlands essential to the storage, filtration, and slow release of water downstream. It is irresponsible to threaten the Ghost Valley's natural capacity to mitigate flooding and this race to clearcut the Ghost could have negative consequences in the future years for Albertans downstream. StopGhostClearcut is a pointed reminder that the era of managing Alberta's forested headwaters for timber rather than for ecological function needs to end immediately.

- Brittany Verbeek

Calgary Ring Road Should Leave Room for the Rivers

The Calgary Ring Road is nearly complete. Alberta Transportation's next stage of development for the road is the southwest portion that will cross several important

natural areas: the Weaselhead, containing conifer and mixed forests and a delta where the Elbow River slows upstream of Glenmore Reservoir, and the west end of Fish Creek Provincial Park, where Fish Creek meanders eastward across its floodplain upstream of its confluence with the Bow River.

AWA learned last September that the current southwest ring road construction concept is to cross the Elbow River and Fish Creek valleys using a 'cut and fill' method: the road would be built upon an earthen berm across the river valley that will require realignment and hardening of river channels at the crossings. At the Elbow River crossing upstream of the Glenmore Reservoir this will narrow the river valley ten-fold; from approximately one kilometer to just under 100 metres wide and create a significant barrier across the Elbow River valley. At the Fish Creek crossing, the current 37th Street bridge (see photo) will also be replaced by shorter bridges over armored channels. The creek west of the crossing will be realigned with some additional hardening.

AWA's concerns with the cut and fill method (and associated realignment and bank armouring) include disruption of wildlife corridors leading to increased wildlife-vehicle collisions, loss of riparian forest and aquatic habitat, and reduced flood attenuation capacity by narrowing the floodplain. The ecosystem's resiliency will suffer. These

designs will presumably save on upfront costs of building longer bridges, but will pose multiple concerns for flooding and river corridor ecology. Will they be costlier to maintain? We don't know. The construction will be prone to flood damage and will disconnect the rivers from their broader natural floodplain, actions which seem to ignore risks from recent dramatic flood events. In addition, the current plan appears to run counter to statements in the South Saskatchewan Regional Plan, such as: "Land use decisions should strive to reduce disturbances on Alberta's landscape."

An early October community information forum on the proposed ring road river crossings, co-hosted by Calgary River Valleys and the Weaselhead / Glenmore Park Preservation Society, drew over 300 citizens. The project's design contract will be awarded in Spring 2015. AWA is urging Alberta Transportation to revisit the current proposed plans and to choose a more sustainable design that increases the length of the bridges to span the natural river corridor, thereby maintaining the natural floodplain and river valley ecosystem. Despite the slump in oil prices the capital plan contained in the March 2015 budget estimates that \$667 million will be spent in the current fiscal year on the Calgary and Edmonton Ring Road projects.

- David Robinson



We know how to leave room for the river: the current 37th St. bridge across Fish Creek leaves a natural floodplain and wildlife corridor relatively intact. PHOTO: © E. MCMAHON

Featured Artist – David Mayne Reid

A Hint of Winter, Acrylics



Auyuittuq, Acrylics



Spring/Summer Events

Edmonton Talk: Iceland – An Island of True Wilderness and Wildness with Vivian Pharis

Thursday May 28, 2015

Join Vivian Pharis for the last of our Edmonton "Wilderness Around The World" speaker series. Vivian is set give a fascinating presentation about a horseback trip around Iceland: one of the world's most truly wild wilderness areas.

Location: Jackson Power & Electric Ltd. 9744 – 60 Ave. NW, Edmonton

Doors open at 6:30 p.m.

Tickets: by donation

Registration: 1 (866) 313-0713

Online: www.GoWildAlberta.ca/talks

Calgary Talk: Northern Gateway and the Great Bear Sea with David Miller and Art Sterritt Co-hosted by AWA, World Wildlife Fund (WWF) and Coastal First Nations

Thursday June 4, 2015

WWF is traveling across western Canada to raise awareness about the Northern Gateway Pipeline and its potential impacts for Coastal First Nations on the Great Bear Sea region. With the soon-to-be-released MaPP (Marine Planning Partnership) agreement between Coastal First Nations and the Province, there is an opportunity now to focus on sustainable livelihoods and planning the ocean economy in the Pacific Northwest.

Location: 455 – 12 Street NW, Calgary

Doors open at 6:30 p.m.

Tickets: \$5.00

Registration: (403) 283-2025

Online: www.GoWildAlberta.ca/talks

Party: AWA's 50th Anniversary Celebration and Purchase of AWA's Hillhurst Cottage School

Thursday June 25, 2015

Can you believe it? AWA turns 50 this year! Come help us celebrate this amazing milestone at AWA's Hillhurst Cottage School in Calgary as we purchase this historic century-old property. Between the anniversary and the building purchase, AWA has lots to celebrate, so we're throwing a party for all our members, supporters, friends and neighbours. The afternoon will include dignitaries, music, refreshments, building tours, and fun for all.

Location: 455 – 12 Street NW, Calgary

Time: 3:00 p.m. – 8:00 p.m.

Building virtual tour and walkthrough: www.AlbertaWilderness.ca/contact-info

Calgary Talk: The Bighorn Wildland – Making the Puzzle Pieces Fit with Sean Nichols

Tuesday June 9, 2015

An important piece of Alberta's Eastern Slopes, the Bighorn Wildland is a large and intact wilderness that retains its ecological integrity largely due to the absence of roads and industrialized access. The North Saskatchewan regional planning, as part of a province-wide land use planning process, is an important opportunity for the public to provide input to the Alberta government on protecting the Bighorn as a Wildland Park and conservation many other wilderness areas in the region. Join AWA's conservation specialist Sean Nichols to discuss off-highway vehicle trail monitoring, the importance of headwater protection along the central Eastern Slopes, and how to get involved with AWA's freshwater campaign and the North Saskatchewan regional planning process.

Location: 455 – 12 Street NW, Calgary

Doors open at 6:30 p.m.

Tickets: \$5.00

Registration: (403) 283-2025

Online: www.GoWildAlberta.ca/talks

For a complete list of AWA hikes and tours – including trips to the Porcupine Hills, Hand Hills, Cardinal Divide, and Bighorn – go to: gowildalberta.ca/product-category/hikes-tours/

Sage-grouse have been endangered for many years but governments have done very little to eliminate human disturbances in critical sage-grouse habitat.



www.AlbertaWilderness.ca

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