

# 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](http://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

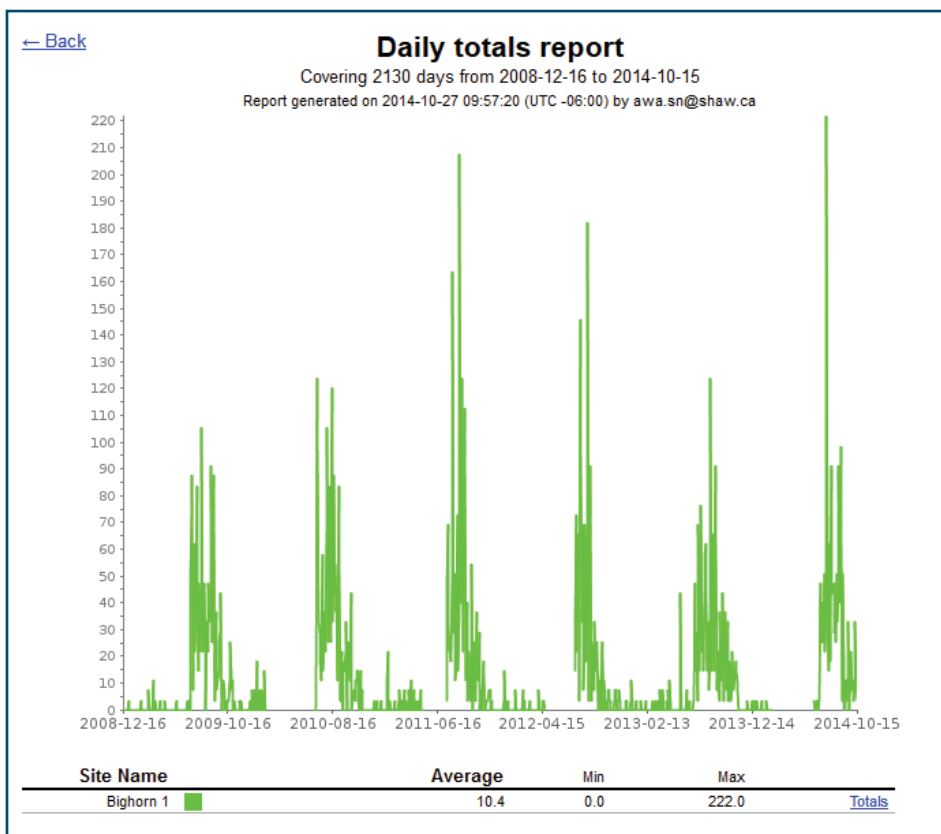
sense: the sheriffs have a large area and mandate of responsibility, of which enforcing OHVs and trail use is only a small part. And, like all departments and ministries, they face increased budgetary constraints, continuously being tasked to do more with less.

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 8,000km<sup>2</sup> 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 4,000km<sup>2</sup> Wildland zone, with an adjacent 3,000km<sup>2</sup> transition zone, and a further 1,000km<sup>2</sup> 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

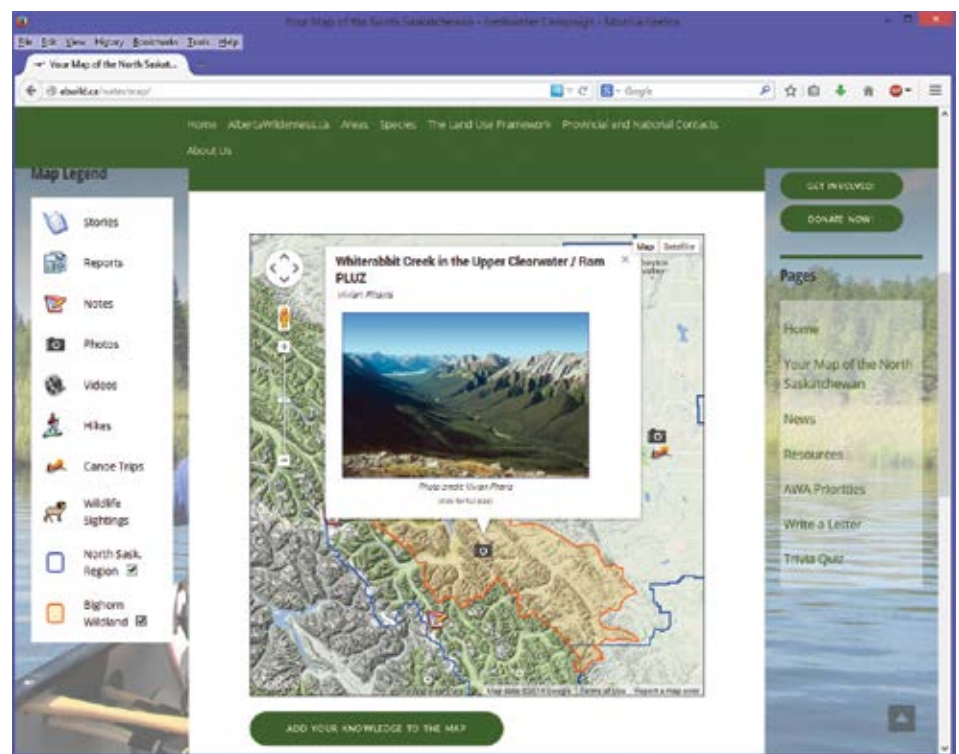
Where the NSRP process goes from here remains to be seen. AWA has its priority is-

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.