



ALBERTA WILDERNESS ASSOCIATION

"Defending Wild Alberta through Awareness and Action"

June 20, 2016

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Re: Draft Alberta Grizzly Bear Recovery Plan

Alberta Wilderness Association (AWA) works throughout Alberta towards more representative and connected protection of Alberta's unique and vital landscapes that are the source of our abundant clean water, clean air and vital habitat for wildlife in each one of our six natural regions. We have been working in Alberta for more than fifty years, to raise the profile of Alberta's spectacular wilderness, and to help Albertans learn more about the value of our wilderness and wildlife, and participate in opportunities to protect and care for the legacy that we will leave for future generations. With more than 7,000 members and supporters, AWA remains committed to assuring protection of wildlife and wild places for all Albertans.

AWA appreciates the opportunity to provide comments on the Draft Alberta Grizzly Bear Recovery Plan. While we appreciate the release of this long overdue Recovery Plan, AWA is generally concerned that this Recovery Plan does not reflect a Precautionary Principle in wildlife management and may put this iconic species further at risk.

Change from Open Route to Open Road Density Thresholds

The 2008 Grizzly Bear Recovery Plan defined open routes as roads and trails (including seismic lines) on which motorized travel is possible and permissible (tracking this also contributes to our understanding of the overall human footprint). The justification for using open routes was that *"Because human use of access is difficult to measure, open route densities are recommended as a surrogate for amount of human use."* [italics added for emphasis]

The 2016 draft Plan proposes to use “open roads” as a measure of linear density thresholds, not open routes. Open roads are defined as access that is reasonably drivable with on-highway vehicles (i.e. paved or graveled).

The change from open route (any disturbances which can be and most likely are accessed by humans) to open road density thresholds is incredibly concerning. A change to open road densities ignores the Precautionary Principle, which states that where there are threats of serious or irreversible damage to a wildlife species, measures to prevent the reduction or loss of the species should not be postponed for a lack of full scientific certainty.

Since thresholds are now only applied to "access that is reasonably drivable with on-highway vehicles", there is potential for an increase in the proliferation of linear disturbances in Alberta which already far exceeds any acceptable limits for wildlife. Since grizzly bears are considered an umbrella species, Alberta's Grizzly Recovery Plan has implications for the future of other Alberta species such as Woodland Caribou and threatened native fish which are negatively impacted by linear disturbances. AWA cautions that the change from open route to open road densities may result in unintended negative consequences for these and other iconic native Alberta species.

AWA believes that sufficient scientific evidence exists to include thresholds on all linear disturbances. Research on the impact of disturbances on grizzly bear habitat selection concludes that "While some disturbance provides resources for bears, increased human access to grizzly bear habitat increases mortality risk. [...]When disturbances are providing resources, access to these areas should be limited to reduce the likelihood of human-caused mortality"¹. This suggests that all human access must be managed in order to reduce grizzly deaths, and so there must be limits on open route densities.

A review on the impacts of human recreation on brown bears found that "the primary mechanism by which recreation may impact brown bears is through temporal and spatial displacement with associated increases in energetic costs and declines in nutritional intake"². Research on grizzly bears has supported these conclusions, and that "bears selected against areas within 250 - 900m from ATV trails and within 450 - 600m from single-track trails, which had some motorbike use. [...] Bears were less likely to spend time near trails with high (~5 trips/day average) motorized use than trails with low motorized use"³. Again, AWA does not agree that only density thresholds should be placed on roads as "the extent that OHVs contribute to human caused grizzly bear mortality is a knowledge gap". This ignores the Precautionary Principle and sound scientific evidence that human access both directly and indirectly impacts grizzly bears, as well as other wildlife.

Poaching was identified in the strategy as the major cause of human-caused grizzly mortality. Poachers can and probably do take advantage of hundreds of kilometers of abandoned seismic lines and off-highway vehicle (OHV) trails (designated and undesignated) in order to access grizzly habitat. AWA questions how grizzly bear deaths from poaching will be reduced while the strategy does nothing to limit designated/undesignated trails and human access of disturbance.

¹ Stewart, B.P., Nelson, T.A., Wulder, M.A., Neilsen, S.E and G. Stenhouse. 2012. Impact of disturbance characteristics and age on grizzly bear habitat selection. *Applied Geography* 34: 614-625.

² Fortin, J.K., Rode, K.D., Hilderbrand, G.V., Wilder, J., Farley, S., Jorgensen, C. and B.G. Marcot. 2016. Impacts of Human Recreation on Brown Bears (*Ursus arctos*): A Review and New Management Tool. *PLoS One* 11(1) doi: [10.1371/journal.pone.0141983](https://doi.org/10.1371/journal.pone.0141983)

³ Graves T.A., Servheen, C. and D. Godtel. 2004. Spatial and temporal response of grizzly bears to recreational use on trails. IN: *Proceedings of the 2003 International Conference on Ecology and Transportation*, Eds. Irwin CL, Garrett P, McDermott KP. Center for Transportation and the Environment, North Carolina State University, Raleigh, NC: p. 411.

AWA maintains that until it is possible to measure use on existing linear disturbance, the Precautionary Principle must be applied and ALL linear disturbance must be considered open and consistently accessed by humans. OHV use on designated/undesignated trails results in increased access into grizzly bear habitat, increasing indirect and direct human-caused grizzly mortality and decreasing grizzly recovery.

In summary, there is robust scientific evidence to show that habitat disturbance decreases grizzly bear survival by increasing human-grizzly conflict; and that habitat loss and displacement are major factors resulting in deaths. The recovery plan must apply the Precautionary Principle to reduce disturbance in grizzly habitat (by placing limits on open route density thresholds) before there can be a viable population in Alberta.

Positive Recovery Actions

AWA is supportive of recovery actions to mitigate the effect of motorized access, especially "develop a policy Directive (or equivalent tool), that uses the recommended open-road density thresholds as part of the planning and permitting process for new road developments on public land in the Core and Secondary Zones" but we maintain that this policy directive must be for **open-route density thresholds**.

AWA also supports that "new road developments should be temporary and include a schedule of reclamation and/or deactivation. Where appropriate, include road design considerations in the new road policy directive (Action 3)."

Additional Zones

Recovery and Support Zones

The proposed addition of the *Recovery Zone* (the geographic extent in Alberta where it is the intention of the Government of Alberta to recover grizzly bears) and *Support Zone* (a priority area for the management of bear attractants and other sources of human-wildlife conflict adjacent to the Recovery Zone) is supportable as represented in the draft plan provided.

Habitat Linkage Zones

AWA appreciates the recognition that major road corridors pose a major threat to grizzly recovery and that safe dispersal of grizzlies across highways is a desired outcome. We additionally appreciate that a main recovery action is to develop and implement a plan to mitigate the barriers to successful crossing of transportation corridors. We would request that there is an additional Recovery Action to develop a Highway Crossing Business Case similar to what has been proposed for the Bearsmart Program. Building highway crossings (overpasses and underpasses) will make a difference in reducing collisions with bears as well as other wildlife and will help ensure grizzly populations are not demographically separate.

Changes to the Core and Secondary Zones

AWA is supportive of the addition of 12,074 km² habitat in the Secondary Zone in BMA 2.

The removal of Core and Secondary Zones in the Porcupine Hills and designating them as "Support Zone" in BMA 5 is, however, not acceptable. If the Government does not consider this habitat important for the recovery of this population, (as it is not designated as "Recovery Zone") there will no longer be a requirement to manage road density or limit mortalities in the area. We strongly believe this change in designation has the potential to increase mortality rates and increase relocation away from the vital grizzly habitat in the Porcupine Hills.

High levels of human conflict and mortality in this area does not justify removing the Porcupine Hills from the Core Zone. In fact, this reflects an even greater need to manage open route density and to minimize human caused grizzly deaths in the Porcupine Hills. The Porcupine Hills must be included as Core and Secondary Zones.

Recovery Priorities by BMA and Increased Mortality Rate Objectives

While AWA recognizes that factors affecting grizzly bear recovery and sustainability will vary somewhat from one part of the province to another, and that there is some call to vary management actions between BMAs, the concept that measures of recovery progress should be done by Bear Management Area (BMA) is concerning. Although it is important to look at challenges and successes in each BMA, by focusing solely on BMAs the importance of maintaining a larger, connected Alberta (and international) population of grizzlies could be lost. AWA is also concerned that this could open the door to BMA by BMA approaches to important management decisions such as delisting and hunting. Decisions should be made for the grizzly population as a whole, not for sub-populations within BMAs. AWA recommends including an overarching objective that commits to recognizing and managing grizzly bears based on connectivity beyond provincial boundaries.

Lack of connectivity in planning is exemplified by Objective 2 in Table 6.1 "In the recovery and support zones, the known human-caused mortality rate is $\leq 4\%$, of which the female mortality rate does not exceed 1.2%, except in BMAs 5 and 6 where the mortality rate is less than 6.0%, of which the female mortality does not exceed 1.8 %." AWA strongly opposes the changed mortality rate objectives in BMAs 5 and 6. There is no scientific basis for raising what are considered to be acceptable mortality rates in these areas. By allowing higher mortality in some BMAs, the greater Alberta population of grizzlies are placed at greater risk due to their large home ranges.

The increased mortality rates in BMA's 5 and 6 reflect the failure of current human-conflict management strategies. Objectives should always be founded in science and reflect what needs to occur in order to achieve a stable Alberta population of grizzlies and not "in order to not further exacerbate the very high rates of human-grizzly bear conflict associated with livestock and livestock feed". With proper attractant management and aversive conditioning, these rates of human-grizzly conflict will decrease significantly. The Plan seems to ignore the need to manage conflict by implementing programs that use attractant management and conflict reduction, not just simple elimination of bears.

AWA also has serious reservations about the statement "There has been an eastward expansion in the pattern of occurrences which may be indicative of an expanding population similar to what has been suggested for BMA 6". A potential alternative explanation is that grizzly bears are being pushed out of public lands due to increased human use of public lands, resulting in increased displacement of grizzly bears moving eastward onto private lands. It is also possible that the eastward expansion of occurrences can be attributed to a handful of bears that have become habituated to human activity. AWA cannot accept what has been suggested as an increase in grizzly bear population based on anecdotal evidence alone until a proper population size estimate is completed using DNA-based mark-recapture methodologies.

Grizzly Mortality Recovery Actions

AWA requests that you provide a list of specific recovery actions aimed to decrease the number of human caused female grizzly deaths. 39.7% of 131 human-caused mortalities (out of an estimated population of 700) since 2006 means that the female mortality rate has averaged 9.3% of the provincial

population, which is substantially higher than the goal of 1.2% in order to increase grizzly populations. AWA would like to know how you will address this specific concern; acknowledging that recovery actions such as improving dispersal ability, reducing accidental human-caused mortality, managing food attractants, and improving Alberta's BearSmart Program will help decrease female grizzly deaths.

Downlisting of Grizzlies

AWA is concerned with the potential for Alberta's grizzly bear population to be downlisted from Threatened with less than 1000 mature individuals as long as the issues associated with human-caused mortality and the supply of high quality secure habitat are addressed. AWA agrees that a suitable supply of quality, secure habitat and effective mortality management are equally important – if not more so – as achieving a numerical target, and those should remain prime objectives. However, having secure habitat and effective mortality management will not protect against the random events causing population reductions to which small populations (of any species) are intrinsically vulnerable. That criterion, which was partially used to qualify the Alberta population of the grizzly bear for Threatened status, was based on solid science and nothing in the intervening years has changed the underlying fact. The standard of 1,000 breeding adults is an international standard for a healthy and genetically viable population of large mammals. We know of no science that suggests otherwise or that would recommend abandoning that goal.

It is also erroneous to rely on demographic "rescue" by movement of grizzlies from neighboring regions in order to maintain Alberta's grizzly population. Grizzly bears in the southern Rocky Mountains of Alberta are integral to the overall Rockies metapopulation. These bears comprise about two-thirds of the discrete Southern Rockies sub-population, which includes the bears in Alberta's Livingstone and Porcupine Hills planning areas⁴. Recent research studied grizzly bear population size and mortality in the Elk, Bull and White river valleys of southeastern BC⁵. The BC part of the sub-population declined 40% between 2006 and 2013. The paper outlines that the Highway 3 corridor has created a "sink" area of high mortality where bears will move to and have a high probability of death. The high mortality rates in BMA's 5 and 6 may be reflective of unsuccessful "rescue" attempts by bears in neighboring regions. Alberta has a responsibility to maintain a stable grizzly population.

Alberta's grizzly bear population historically existed on the prairies and there is potential to recover this species in Alberta. Grizzlies ranged across the whole of Alberta, across Saskatchewan and into Manitoba. It is erroneous to repeatedly suggest that increased mortality rates will be acceptable since there are some indications that grizzly bears may be moving eastward. The goal of the Grizzly Bear Recovery Plan should be to ensure a self sustaining Alberta population and to ultimately support the natural expansion of grizzly bears to their former range.

Alberta BearSmart Program

Management strategies which aim to reduce human-bear conflicts through the Alberta BearSmart Program are essential. Additional funding to support BearSmart Programs, including Karelian Bear Dog Units and the funding that is necessary to ensure these dogs are receiving proper care must be

⁴ Proctor, M. F., D. Paetkau, B. N. McLellan, G. B. Stenhouse, K. C. Kendall, R. D. Mace, W. F. Kasworm, C. Servheen, C. L. Lausen, and M. L. Gibeau. 2012. Population fragmentation and inter-ecosystem movements of grizzly bears in western Canada and the northern United States. *Wildlife Monographs* 180:1-46. doi:10.1002/wmon.6

⁵ Mowat, G., and C. Lamb. 2016. Population status of the South Rockies and Flathead grizzly bear populations in British Columbia, 2006--2014. Report prepared for Ministry of Forests Lands and Natural Resource Operations, Province of British Columbia, Nelson, BC. 32 p. doi:10.13140/RG.2.1.3520.3446

supported. BearSmart Programs are often managed with little to no funds on the backs of dedicated volunteers. As such, increased financial support is necessary in order to achieve success in management objectives. AWA is supportive of the enhancement of Alberta's BearSmart Programming and the hiring of additional human-wildlife conflict management specialists.

To conclude, AWA believes that the Precautionary Principle must guide all wildlife recovery plans. There is an urgent need to have sound and powerfully devised management plans, policy, and legislative documents that will protect our wildlife. AWA urges you to give serious consideration to our comments and requests. We look forward to receiving your response.

With regards,
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