ALBERTA WILDERNESS ASSOCIATION
"Defending Wild Alberta through Awareness and Action"

March 18, 2014

Honourable Leona Aglukkaq
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AWA Comments on Proposed Recovery Strategy for the Woodland Caribou, Southern Mountain population (*Rangifer tarandus caribou*) in Canada

Dear Minister Aglukkaq,

Alberta Wilderness Association would like to thank you for this opportunity to respond to the *proposed Recovery Strategy* for the Woodland Caribou, Southern Mountain population (*Rangifer tarandus caribou*) in Canada.

Alberta Wilderness Association (AWA), founded in 1965, works throughout Alberta towards more representative and connected protection of the unique and vital landscapes that are the source of our clean water, clean air and vital habitat for wildlife in each of our six natural regions. We 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 over 7,000 members and supporters in Alberta and across Canada, AWA remains committed to assuring protection of wildlife and wild places in Alberta for all Canadians.

Summary

Southern mountain caribou populations have continued to decline despite being federally designated as *threatened* for fourteen years; however, as the *proposed Recovery Strategy* notes, "(r)ecovery of all southern mountain caribou local population units is technically and biologically feasible" (p. iv). In

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AWA's opinion, the *proposed Recovery Strategy* does not include the best available evidence and is not robust enough to spark actions necessary to recover the Southern Mountain caribou population. We urge Environment Canada to strengthen the *Recovery Strategy* in these areas, so that it can indeed go a great deal further towards achieving its own goals of self-sustaining populations of caribou:

- Highlight habitat alteration in Threats Assessment
- Aim for recovery, not maintenance, in Goal and Population and Distribution Objectives
- Emphasize habitat maintenance and protection in Strategic Direction
- Include range and buffer zone specific Critical Habitat identification, with disturbance thresholds aimed at recovery
- Increase accountability and urgency in Action Planning

Threats Assessment

The threats assessment methodology reflected in Tables 5-7 in the *proposed Recovery Strategy* downplays the critically significant indirect impact of human land-use activities on caribou predation, and therefore is misleading and does not incorporate best available evidence. "In this assessment, the impact of threats only considers the direct effects on population numbers, and does not consider indirect effects... The indirect impacts of habitat alteration leading to altered predator/prey dynamics and higher predation rates on caribou are considered only under predation (problematic native species)." (p. 13) This misleading approach results, in the case of the Central Group, in a 'medium-low' impact rating for the 'large' scope land use of logging & wood harvesting, and in 'low' impact ratings for each of the pervasive-scope land uses of oil and gas drilling, roads and railroads, recreational activities, and work and other activities. Even though s. 4.2.1 "Predation" begins with the statement: "The most significant, immediate threat to all three Groups of southern mountain caribou is increased predation resulting from habitat alteration due to industrial activities (Tables 4-6)", the Tables suggest to readers that only predators are high risk factors to caribou, and that linear disturbance is on par with geological events as low impact.

Instead, the Southern Mountain *proposed Recovery Strategy* should include a 'High' Level of Concern, 'High' Severity, and 'High' Causal Certainty rating for 'Habitat alteration as a result of human land-use activities', consistent with the Threat Assessment section in the *Boreal Caribou Recovery Strategy*, 2012.

Population and Distribution Objectives

The defined Recovery Goal for Southern Mountain caribou is "to achieve self-sustaining populations in all local population units within their current distribution, to the extent possible." AWA believes that this goal is extremely weak for a nominal *Recovery* Strategy. First, the phrase "to the extent possible" should be removed, both from the proposed Recovery Goal as well as the Population and Distribution Objectives, because "(r)ecovery of all southern mountain caribou local population units is technically and biologically feasible." (p. iv).

Second, maintaining the current range is essential but not sufficient; the strategy should be seeking to expand into previously-occupied range. The *proposed Recovery Strategy* acknowledges that "southern mountain caribou have been extirpated from approximately 40% of their historical range," and that "(i)n Alberta, about 61% of the generalized maximum historical range of all caribou in the province is no longer occupied." (p. 4) Moreover, "(c)onnectivity between southern mountain caribou ranges also allows for immigration and emigration among subpopulations, which increases gene flow, thereby helping to maintain genetic diversity and the species' consequent resilience to environmental stressors" (p. 11) For this vulnerable, wide ranging species, a *Recovery* Strategy, as opposed to a *Maintenance* Strategy, should seek to restore and secure previously-occupied range for the populations' habitat connectivity and long-term viability.

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The population target of 'current population if above 100 animals' or '100 animals if now below 100' is also very weak. Again, it indicates only a maintenance approach for populations that have significantly diminished in recent decades from human-caused disturbance, rather than a recovery approach. The 2012 *Boreal Caribou Recovery Strategy* notes that "100 animals provides a 0.7 probability of not reaching a quasi-extinction threshold of less than 10 reproductively active females under stable conditions" and that literature on boreal caribou "reports that more than 300 boreal caribou are needed for self-sustaining populations" (*Boreal Caribou Recovery Strategy*, 2012, p. 22 and p. 9). Mitigating the risk of quasi-extinction should be an urgent short-term goal, but not the long-term population objective in a recovery strategy. In the absence of specific information about limiting factors that prevent a local population range from supporting 300 animals, 300 should be the goal for self-sustaining southern mountain caribou local populations; if there are limiting factors to justify a goal lower than 300, that goal should reflect a recovered population, not the diminished current population or 100 animals.

Strategic Direction for Recovery

'Habitat maintenance' is not emphasized enough in the *proposed Recovery Strategy*. Significant intact or relatively intact habitat is still being lost each year due to ongoing industrial, and in some areas recreational, activities. Habitat maintenance and restoration is as urgent as immediate reduced predation because it is the cause of the unsustainable predation, and it will take decades to restore the habitat intactness necessary for self-sustaining caribou populations. 'Habitat maintenance and restoration' should replace the phrase 'habitat restoration' in: "The overall approach is to conduct population management actions in the short term, concurrent with habitat restoration activities, until suitable habitat is restored." (p. 29). 'Habitat maintenance in all utilized seasonal ranges and matrix ranges' should be specifically included as a priority approach in the Habitat Management sections of the Table and in s. 6.3.3 Habitat Management narrative.

The *proposed Recovery Strategy* is very weak in addressing the need for legislated protection as a tool to protect habitat for Southern Mountain caribou and allow for their recovery. The strategy does indeed mention that "(i)n certain cases, it may be necessary to identify and designate protected areas with biophysical attributes for southern mountain caribou" (6.3.3 Habitat Management, p. 35). But it falls far short of identifying where these areas are, or what the process might be to "protect" them. It also fails to identify benchmarks for effective protection under provincial law, or the schedule on which the Minister will assess whether effective protection exists. Alberta's Foothills Natural Region includes important Central Group current and historic winter ranges, yet current levels of permanently protected habitat are notoriously low: less than two percent. The identified current range areas are the 'last stand' for mountain caribou survival and should have high levels of permanent protection from industrial forestry and other new anthropogenic disturbance, and an accelerated program to reduce and restore legacy footprint. Larger landscape-level protection connecting historic caribou foothills ranges is also important for long-term self-sustaining populations.

In the Recovery Planning table, there is an over-emphasis on predator management. It is the first strategy mentioned, and 'Predation' is the first limiting factor listed in the Landscape Level Planning and Habitat Management strategies, with the Tables set up in such a way as to suggest that 'Predation' is the Urgent element to deal with. Again, this presentation is misleading: it distracts from the fact that unsustainable predation is caused by cumulative human land use impacts. As Alberta's *Status of the Woodland Caribou in Alberta* 2010 update notes, "Caribou have co-existed with natural habitat change (primarily forest fires) and wolves for thousands of years; however, evidence indicates that recent human alterations of caribou habitats have increased wolf predation of caribou by making it more difficult for caribou to minimize overlap with wolves." (Government of Alberta, 2010, p. 56).

In s. 6.3.1.1 'Manage Predators and their Primary Prey', the discussion of best available evidence for associated habitat management is too weak. It now reads as though habitat maintenance and restoration actions could be detached in timing from predator/prey management: "Where the condition of the local population unit warrants such measures, management of predators and their primary prey may be applied as interim management tools until habitat conditions in the range recover. Where mortality management is applied, concurrent application of other management tools will be needed to achieve recovery. (paragraph break) In particular, habitat restoration and management will be necessary to recover the seasonal range conditions and predator densities necessary to maintain southern mountain caribou local population units." This passage lacks the necessary insistence that deliberate 'habitat maintenance and restoration' actions must accompany predator/prey management; without that insistence, it is very likely that predator/prey management will continue to be used as a substitute for habitat maintenance and restoration actions, further jeopardizing the survival chances of these caribou populations. To incorporate best available evidence for attaining self-supporting caribou populations, as required under SARA, the phrasing should be: 'Any reliance on predator control as a management strategy must be short-term only and should in no circumstances be used as a substitute for, or to justify delay in achieving, the sufficient and timely identification, maintenance, protection and restoration of habitat to support self-sustaining herds.'

Critical Habitat identification, including Buffer Zone

Location and Disturbance Thresholds - In the *proposed Recovery Strategy*, critical habitat for Southern Mountain caribou has not been identified based on the best available scientific information. The non-spatial provisional approach used here for critical habitat identification is unacceptably risky, as it facilitates ongoing anthropogenic activities that are destroying remaining intact habitat, reinforcing the root causes of southern mountain caribou population declines in recent decades.

Instead, critical habitat should be spatially identified as the entire area within identified range boundaries, which includes seasonal and matrix ranges, plus a 20-30 km buffer zone width around identified range boundaries. Critical Habitat is defined in the 2002 *Species at Risk Act* as "habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species," and under SARA s.2 the definition of "habitat" for terrestrial species is "the area or type of site where an individual or wildlife species naturally occurs or depends on directly or indirectly in order to carry out its life processes or formerly occurred and has the potential to be reintroduced." Therefore, both the entire in-range areas and 20-30 km wide buffer zones should be identified as critical habitat, because it is necessary for caribou survival to take into account both large predator home ranges and the stimulation of alternate prey/predator populations due to human disturbances in areas adjacent to those occupied by caribou. The *proposed Recovery Strategy* suggests this when it states in 'Habitat and biological needs' s. 3.3.1: "habitat/prey/predator dynamics at lower elevations, and in areas adjacent to ranges, contribute to prey/predator dynamics and mortality on caribou within their seasonal ranges" (p. 11)

There is ample scientific justification for including in the critical habitat identification a buffer zone at least 20 to 30 km wide around the identified caribou range area. The 2009 *Athabasca Caribou Landscape Management Options Report*, for example, comments that "(p)lanning areas incorporate ranges (suitable caribou habitat) plus a 20 km buffer around the perimeter to reflect the influence of adjacent habitats and predator-prey populations on woodland caribou… The buffer distance was selected based on data that describes typical wolf pack home range size in northeast Alberta (Latham 2009)."(Athabasca Landscape Team, 2009, p. xiv and p.4) Similarly, the 2012 *A Methodological Framework for Caribou Action Planning in Support of the Canadian Boreal Forest Agreement* says:

"Where predator telemetry data are not available and designated caribou range boundaries have been defined only by suitable habitat or documented use, a conservative buffer width of 100 km is suggested" (Antoniuk T, E. Dzus, J. Nishi, 2012, p.6).

AWA is concerned about the implications of the statement that: "Existing anthropogenic features (including maintained trails, roads and existing infrastructure (e.g., buildings), agricultural fields) are not identified as critical habitat, even when they occur within the indicated polygon."(p. 38) It should be clarified that where disturbance and access exceeds targeted thresholds, these existing features and access need to be reduced and habitat restored, to become functional caribou habitat.

In terms of thresholds, the *proposed Recovery Strategy* undisturbed habitat threshold of 65% for low-level winter habitat is insufficient. The 65% figure is taken from the earlier *Boreal Caribou Recovery Strategy*, and is intended to give only a 60% probability that a population will be self-sustaining. Moreover, there is uncertainty in the graphed relationship: the risk of extirpation for a herd managed at a 65% disturbance threshold may be 50% or less **(**Scientific Assessment 2011, Appendix 7.8 "Estimating Probabilistic Indicators for the Assessment of Critical Habitat for Local Populations of Boreal Caribou" at p. 339, Figure 82). For such a high-priority species, this is a strikingly unambitious target, a risky level even to maintain populations, not to recover them. A more precautionary threshold such as 80% undisturbed low-elevation winter habitat, to give a 'likely' outcome of stable or positive growth of local populations, should be used, in the absence of information suggesting that a higher disturbance level can recover self-sustaining southern mountain populations.

The *proposed Recovery Strategy* statement that "(t)he precise location of the 65% undisturbed habitat within the low elevation winter range will vary over time" should be omitted. It implies a risky approach that could facilitate net habitat loss by allowing new disturbance to be nominally offset by anticipated future habitat restoration. It also ignores the large home range of predators and the role of habitat/prey/predator dynamics in areas adjacent to matrix or seasonal ranges.

In the *proposed Recovery Strategy*, the only metric for matrix range management appears to be associated wolf density, which is clearly insufficient given that human land uses are causing unsustainable predation. Recent declining populations strongly suggest that as an interim measure, there should be no new disturbance and access in identified critical habitat, and targeted restoration goals to reduce net disturbance and access over time, in seasonal, matrix and buffer zone critical habitat.

Current Disturbance- The *Recovery Strategy* should publish best estimates of current disturbance levels in caribou range (including human disturbance buffered by 500 m), and how they relate to the proposed *Recovery Strategy's* goals. The Alberta government has extensive information on linear and polygonal disturbance on its public lands outside protected areas. For example, for the A La Peche population, this disturbance information is now being used as part of a winter range planning process. Global Forest Watch Canada databases could also be used.

Action Planning

AWA is very concerned about the lack of urgency conveyed in the *proposed Recovery Strategy*, a lack of urgency which has been an ongoing feature of the continuing decline of Southern Mountain caribou after fourteen years of federal listing. The Recovery Strategy should provide timelines for the release of all planned Action Plans, not just for the first action plan.

The *proposed Recovery Strategy* notes that SARA obliges the Minister of the Environment and the Minister Responsible for the Parks Canada Agency to complete "one or more action plans" within three years, but AWA believes that the urgency of the situation demands more rapid action, and the extended time period should not preclude on-the-ground recovery actions being implemented as a high priority.

Because of the urgency of improving southern mountain caribou survival and recovery prospects, AWA hopes you will carefully consider these comments and strengthen the final Recovery Strategy based on best available scientific information and in light of the precautionary principle.

Sincerely,
ALBERTA WILDERNESS ASSOCIATION

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cc: Honourable Robin Campbell, Alberta Minister of Environment and Sustainable Resource Development, via e-mail west.yellowhead@assembly.ab.ca

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