



Beverly and Qamanirjuaq Caribou Management Board

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Wildlife Division
Department of Environment & Natural Resources
Government of the Northwest Territories
Yellowknife, NT
By email: Bathurst_rangeplan@gov.nt.ca

BQCMB Comments: Bathurst Caribou Range Plan Interim Discussion Document (December 2016)

I am writing to provide comments on behalf of the Beverly and Qamanirjuaq Caribou Management Board (BQCMB) on the Bathurst Caribou Range Plan Discussion Document. We appreciate the opportunity to provide input on the proposed approaches for protecting important caribou habitat and to help with development of the Bathurst Caribou Range Plan.

The BQCMB is an advisory co-management board of Aboriginal hunters, biologists and wildlife managers that has worked for 35 years with governments, communities, industry and other organizations to develop recommendations for the conservation and management of the Beverly and Qamanirjuaq caribou herds and their ranges. The Board is interested in the Bathurst range planning process because of the overlap of the Beverly and Qamanirjuaq ranges with the Bathurst range, as well as for other reasons outlined in our comments below.

We are aware that an enormous amount of work has been done by the working group members and coordinators of the planning process to develop the approaches described in the Discussion Document, and that much more work will be needed to complete a final Range Plan. The BQCMB is hopeful that the final recommendations will be implemented with the required political will to ensure that these efforts result in real action for protecting important caribou habitat in support of the recovery of the Bathurst herd.

We thank all involved in this process for their collaborative efforts and look forward to the next stage of consultation and the opportunity to review the Draft Range Plan. If you have questions about our comments, please contact the BQCMB Contract Biologist, Leslie Wakelyn (wakelyn@theedge.ca) or the Executive Director, Ross Thompson (rossthompson@mymts.net).

Sincerely

Chair, BQCMB

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Attachment. BQCMB Comments on the Bathurst Caribou Range Plan Interim Discussion Document (December 2016)

The BQCMB Perspective

The interest of the Beverly and Qamanirjuaq Caribou Management Board (BQCMB) in the Bathurst Caribou Range Plan and its planning process is three-fold. First and most directly, more than half of the Bathurst caribou range overlaps geographically with the ranges of the Beverly and Qamanirjuaq caribou herds, so measures taken to protect important Bathurst caribou habitat could also protect habitat important to the Beverly and Qamanirjuaq herds. In addition, any new caribou conservation tools and approaches established through the Bathurst caribou range planning process could have potential application on the Beverly and Qamanirjuaq caribou ranges, both inside and outside the area of overlap with the Bathurst range. Finally, the recommendations and conservation actions that result from this process could be precedent-setting and beneficial for various ongoing and future land use planning and environmental assessment processes for all Canadian barren-ground caribou herds, particularly if caribou conservation requirements and options for addressing them are considered fully.

The BQCMB perspective on caribou habitat protection is summarized in the 2013-2022 management plan for the Beverly and Qamanirjuaq caribou herds¹ as follows:

The BQCMB considers potential effects of commercial land use activities, including disturbance and permanent changes to the herds' annual home ranges, in terms of how they may impact the herd over the long-term. It may be appropriate for limitations on some types of land use activities to be stronger when herds are at higher vulnerability and less strong for herds at lower vulnerability, but important habitats always need to be available so long-term habitat needs are met. (BQCMB 2014: 42)

General Comments

A great deal of effort has clearly been expended to conduct the discussions, modeling, analyses and assessments that are described in the Discussion Document and the various associated reports. For the most part, with a few exceptions (see below), the document is well-written, descriptions are clear, and technical terms have been avoided or explained. Descriptions of the management tools and approaches, and their benefits and challenges, are clearly explained and helpful for identifying their value for caribou as well as potential trade-offs if other values are given higher priority than caribou conservation.

¹ BQCMB 2014. Beverly and Qamanirjuaq Caribou Management Plan 2013 – 2022. Beverly and Qamanirjuaq Caribou Management Board. 102pp.

However, key points may be elusive for readers attempting to review the hundreds of pages of words, maps, tables and graphs that have been produced. From the perspective of the BQCMB, the main points that need to be considered are described in plain language below.

- The Bathurst caribou herd is in poor shape and at lower numbers than perhaps ever before.
- There are many factors contributing to the stresses faced by the herd, and we do not understand how they all interact and accumulate to produce problems for caribou. We cannot do anything about some of these factors, while others can be “managed” to some extent.
- The knowledge of Caribou People and modelling by scientific caribou experts tell us similar things: creating more disturbance for caribou to cope with will result in more harm to the caribou herd; or in other words, as the amount of disturbance caribou experience from human development increases, the negative effect on the population increases.
- We need to avoid adding more disturbance on the caribou range while the herd is in such poor shape to provide the best conditions possible and increase the chance that the herd will recover. We also need to ensure that enough high quality range remains to support more caribou when the herd size increases again.
- There are only a few ways to prevent adding more disturbance to parts of the Bathurst caribou range, and a few other ways can be used to reduce (but not totally avoid) disturbance caused by human activities.
- A range plan by definition plans for the long-term, but at the same time urgent action is needed.
- We need to focus on the goal for conservation of caribou and habitat. We need to make some tough choices to take care of caribou, and to take some action now.

The BQCMB agrees that a precautionary approach to management of disturbance is warranted for the reasons described in the rationale for thresholds (p. 21), and that “Resilient landscape conditions are especially important during low cycles of abundance when caribou may be more vulnerable to the additive effects of human disturbance. . . (p. 53).

However, we caution that limits to habitat loss should not only be applied when the Bathurst herd is at severely low population levels. Important high-quality habitats always need to be available so long-term habitat needs of the herd are met, and those needs will increase as the herd recovers and the number of caribou using the range increases. It is also important to keep in mind that most of the Bathurst caribou range is shared by other barren-ground caribou herds, and that sufficient undisturbed habitat is needed to support those herds as well.

Specific Comments and Responses to Selected Discussion Questions

It appears that it is assumed that all readers of the Discussion Document understand the implications of habitat disturbance to caribou, as various aspects are not explained. For instance, what does habitat disturbance or fragmentation mean to caribou at the individual and herd levels in terms of

habitat availability, access to forage, nutritional status, productivity, etc.? For instance, when the Discussion Document mentions that roads can cause habitat fragmentation, it needs to be clear to readers what this means for caribou. “So What?” needs to be answered clearly in the Discussion Document and Range Plan, not buried in appendices or other documents. It should not be assumed that readers have prior knowledge necessary for understanding what disturbance effects mean for caribou over the short or longer term.

Introduction (p. 2)

The Discussion Document states that following this current round of receiving input, the BCRP Working Group will address outstanding range planning topics including the exploration phase of mineral development. The BQCMB would encourage incorporation of the effects of disturbance to caribou from mineral exploration activities.

Principles (p. 7)

- The first three principles are clearly relevant to the purpose of the range plan as stated “to provide guidance on ways to manage and reduce disturbance to caribou and caribou habitat resulting from human land use and associated activities”. (p. 3)
- The fourth principle “Achieve Balance” is problematic for the BQCMB for a few reasons:
 - Although the principle states that “achieving sustainable development across the range will require explicit tough choices about ecological, cultural and economic values”, the economic value of caribou and the economic ramifications of the loss of caribou have not been included in the economic assessment conducted for this planning process.
 - It is not certain that it is desirable or possible “to achieve balanced outcomes that are acceptable to all participants.” given the diverse perspectives represented in the BCRP Working Group.
 - In our view trying to balance different value systems is the purpose of land use planning. The discussion document (p. 11) states that the proposed management tools and approaches can be implemented through multiple means including land use planning, so perhaps the “balancing” exercise should be left to those processes?

Goals and Objectives (p. 8-9)

The BQCMB agrees that the current goals and objectives are reasonable and an improvement over previous versions.

Range-Scale Management Tools and Approaches

1) Cumulative Disturbance Frameworks

- It is stated that “The disturbance thresholds reflect limits of acceptable change, based on consideration of multiple values and perspectives – ecological (caribou), cultural, social and

economic.” (p. 11) However, it is not clear whose values were used to define what change is considered “acceptable”.

- Restricting assessment of disturbance to footprints and Zones of Influence (ZOI) from mines and communities is not adequate; there is a need to consider cumulative effects (CE) from exploration activities as well as mine-related activities.
- The BQCMB supports incorporating the effects of disturbance and loss of high-quality habitat resulting from wildfires into the assessment of CE on caribou and is glad to see that has been added to the assessment of disturbance levels in relation to thresholds.
- The approach of using thresholds to manage CE on caribou in individual zones or Range Assessment Areas (RAAs) does not assess or provide necessary information for management overall CE on the total range or the herd overall, since the assessment areas are considered independently. The Range Plan should also consider the overall range-wide CE of disturbance and loss of habitat on Bathurst caribou (including effects on herd productivity).

2) *Protected/Conservation Areas*

- What is meant by protected/conservation areas needs to be defined. Protected/conservation areas are not a single homogeneous tool, as there are many different types of designations that can provide habitat protection, as well as different levels of protection and degrees of permanence.

It should be clear to readers what types of protected areas are being discussed as potential management tools, and what the implications of this approach would be in terms of prohibitions or restrictions on land uses. Currently there is not enough information provided for people to determine what variety of options this approach could include.

- The Plan should include more informative descriptions of existing protected/conservation areas on the range of the Bathurst herd, which will possibly include protected areas established through the Nunavut Land Use Plan (for core calving and post-calving areas and fresh-water crossings) and through federal and territorial parks legislation (for Thaidene Nene around the East Arm of Great Slave Lake).
- Descriptions of protected areas established through land use planning are inconsistent and sometimes inaccurate. On page 13 it is stated that “Protected or conservation areas . . . can be either permanent (e.g., a land use protected area zone)”, which is not correct. A few lines later it is stated that “Conservation Zones in land use plans are often reviewed every 5 years and can be amended on an as-needed basis . . . and thus offer flexibility”, which is accurate. Protected and conservation areas in a land use plan are not permanent. People should be

provided with this information consistently in documents circulated for discussion of range planning options.

- The BQCMB states in the 2013-2022 management plan for the Beverly and Qamanirjuaq caribou herds (BQCMB 2014: 43-44) that the following actions related to protected/conservation areas should be taken to help protect caribou and key habitat in calving and post-calving areas:
 - Calving grounds should be protected from exploration and development activities. Periodic re-evaluation of recently used calving areas should be conducted for each herd, with provision for protection of calving areas outside traditional ranges (for instance when a herd shifts outside that area).
 - No new exploration or development activities should be allowed on calving and post-calving areas. No mineral tenures, federal land use permits or Inuit land use licences should be issued on calving and post-calving areas.
 - The federal government should update and improve Caribou Protection Measures to increase their effectiveness for protecting caribou. Mobile Caribou Protection Measures should be considered, based primarily on tracking caribou locations by telemetry using an adequate sample of radio-collars, supplemented by survey flying.
 - No-activity buffer zones should be established around caribou during calving and post-calving periods regardless of the vulnerability rating of the herd, and should apply seasonally during other periods when a herd is considered to be highly vulnerable.

3) *Land Use Activity Guidance*

- As is stated on p. 14, this approach does not address direct habitat loss or disturbance, as roads, mines and exploration camps would still be constructed under its application. The text refers to managing “habitat effectiveness” at a range scale, but the meaning of the term is not described. It should be made clearer that this approach:
 - focuses on reducing, not eliminating, disturbance effects, and
 - relates to disturbance on caribou and effects on caribou behaviour, including availability of habitat to caribou and their use of habitat.
- It should be indicated that the new version of measures that is referred to as “Mobile Caribou Conservation Measures” are currently under development, and that it has not yet been established if they are feasible (in part due to the costs involved) or if the mining industry will agree to use them. Therefore their use as a management tool is uncertain.
- Regarding guidelines for land use activities, the BQCMB states in the 2013-2022 management plan for the Beverly and Qamanirjuaq caribou herds (BQCMB 2014: 44):

- Seasonal shutdown of exploration and mining activities (including roads) should be required as part of established procedures at camps and mines in calving and post-calving areas.
- Periodic cumulative effects assessment of all exploration and development activities in each herd's range should be conducted using the most up-to-date tools, as well as periodic re-assessment of standard land use conditions (e.g., conditions issued in land use permits, licences and project certificates).
- Effective enforcement to assess compliance with land use conditions and monitoring of ongoing commercial land use activities should be conducted to identify effects of activities on caribou and habitats and provide information for adaptive management.

4) *Access Management and Planning*

- Except for reference to sensory disturbance, the description of this approach fails to relate its purpose back to effects on caribou adequately. For instance on p. 15 it is stated that "Roads with high traffic volumes can restrict the ability of caribou to move from one area to another resulting in habitat fragmentation.", but it does not explain what habitat fragmentation is or what it means for caribou.
- The BQCMB states in the 2013-2022 management plan for the Beverly and Qamanirjuaq caribou herds (BQCMB 2014: 44) that the following land use management actions related to roads should be taken to help protect caribou and key habitats:
 - No new all-season roads should be allowed on the caribou ranges.
 - No new winter roads should be allowed on calving and post-calving areas or key migration corridors, and development of new winter roads should be minimized.
 - Plans for any new roads to temporary developments should include plans for active de-commissioning, including removal of planned temporary bridges over rivers.
 - Developers should be encouraged to limit public access to project-related roads, prohibit hunting from these roads and enforce moderate speed limits for all users (including workers and the public).
 - Key seasonal movement corridors (such as near traditional water crossings) should be identified, and roads or other linear corridors that could be potential barriers to caribou movement should be limited in these areas.

Development of Range Scale Management Recommendations

- Figure 5 (p. 20) and the subsequent descriptions of how the range-scale management tools and approaches could be applied to achieve the goal and objectives across the five RAAs considers only some tools for addressing certain objectives. It is not clear why broader application and additional benefits of some tools are not recognized as options.

In particular, it is not clear to the BQCMB why protected/conservation areas:

- a) are not considered as a tool for application in RAAs 3-5, and
- b) are not considered to make contributions for maintaining the amount of disturbance below thresholds (obj. 1) or to manage human access (obj. 4).

Despite their inclusion in the map of protected/conservation areas (Fig. 15) and a brief mention of Tlicho protected areas (pp. 40-41), the BCRP Discussion Document appears to ignore the possible contribution of existing protected areas in RAAs 3 and 4 for maintaining integrity of habitats, and also the possibility that any additional protected areas established in future on the caribou range might contribute to this objective. Because there is no information provided about these Tlicho protected areas or what activities are prohibited there, it is not clear if these areas help address that objective or not. Similarly, Thaidene Nene will establish protected/conservation areas in RAAs 4 and 5. The main goal of this area may not be to help with recovery of the Bathurst herd, but nevertheless there should be some conservation benefit that results from exclusion of some land use activities from this area. Why has this not been considered or assessed?

- Figure 5 and subsequent text (pp. 39, 43) also indicate that Mobile Conservation Measures could be used to maintain integrity of sensitive habitats. The BQCMB disagrees with this assertion, and supports statements made elsewhere in the Discussion Document (pp. 15, 43) that these Measures do not prevent disturbance to habitat, habitat loss and fragmentation.
- On page 20 it is stated that “The intention of the BCRP is that all tools and approaches be implemented collectively to achieve all objectives and ultimately the goal of maintaining a resilient landscape for caribou.” However, the way in which the management tools are presented is limited to their individual application. This does not adequately reflect how tools could be applied collectively, which is information that should be provided for review by the Working Group and others. Further explanation of what we mean by this is provided below.

We suggest that other scenarios should be considered and provide the following example for RAA1, which describes measures that could be put in place *in addition* to application of the cumulative disturbance framework.

- 1) Protected areas could be established to protect the Bathurst core calving and post-calving areas through the Nunavut Land Use Plan. As a result, further habitat disturbance would be extremely limited in those areas. This would contribute to achieving three objectives in RAA1 by helping to maintain integrity of sensitive habitats (obj. 3), connectivity between seasonal ranges (obj. 2), and disturbance below threshold levels for that area (obj. 1).

AND

- 2) Mobile Caribou Conservation Measures (MCCM) could be successfully developed and put in place to reduce disturbance to caribou in calving and post-calving areas that are outside the protected areas. This would help to achieve objective 2 to maintain connectivity between seasonal ranges. Connectivity could be maintained within RAA1 as well as between RAA1 and RAA2. However, MCCM will not help to achieve objective 3, as it will not entirely prevent disturbance and loss of habitat.

Objective 1: Maintain the amount of human disturbance below threshold levels.

- It is stated on page 21 that management thresholds reflect a balance of ecological, cultural, and socio-economic values of the BCRP Working Group, but it is not clear how the values were incorporated or weighted to achieve a “balance”, who decided when an appropriate balance was achieved, or what level of risk to Bathurst caribou was deemed acceptable.
- The focus of the economic development component is solely on mine-related infrastructure and projected economic benefits of the mining industry. This needs to be balanced with similar analysis of the economic benefits of regaining a healthy and accessible Bathurst caribou herd and a more diverse economy, as well as the economic implications of the loss of Bathurst caribou (to communities, outfitters, the wilderness tourism industry).
- Disturbance from mining development is emphasized and disturbance from mineral exploration activities are not incorporated into the assessment of thresholds or levels of cumulative disturbance. The BQCMB agrees that the contribution of disturbance to caribou from mineral exploration activities should be included as future assessments are developed.
- Disturbance from wildfires has been incorporated into the assessment of cumulative disturbance levels, as shown in relation to thresholds in the graphs illustrating potential disturbance levels over time for three scenarios (Fig. 7, p. 30) and in the table summarizing current cumulative disturbance levels (Table 5, p. 31). This is a valuable addition to the assessments. Different thresholds for the Tundra and Taiga are warranted. Further refinement of this approach, as outlined under next steps (pp. 33-34), should be considered.

- Methods for developing a range-wide threshold of CE on Bathurst caribou habitat, for reporting current levels by territory or RAA, and for monitoring change in the status of range-wide CE should be developed.

Selected Discussion Questions:

- *Would these disturbance thresholds represent an appropriate balance between achieving a resilient landscape and supporting sustainable economic development activities?*

We cannot answer this question based on the information provided. It is not clear to the BQCMB how the critical threshold values were determined, what they are based on, and how they are related to caribou habitat recovery needs.

- *Is wildfire disturbance an important contributing factor to total disturbed area in the Taiga range areas, and should it be incorporated into the development and implementation of disturbance thresholds?*

Yes and yes.

Objective 2: *Maintain connectivity between seasonal ranges.*

Selected Discussion Questions:

- *Under what conditions is each of the two management tools (protected / conservation areas vs. mobile caribou protection measures) preferred? Under what conditions could these two tools be implemented simultaneously?*

The two management tools (protected / conservation areas and mobile caribou protection measures) address different objectives. Protected/conservation areas are used to exclude certain activities from specific spatially-defined areas, and are preferred when the objective is to prevent habitat disturbance and loss. As stated in the Discussion Document (p. 15), mobile caribou protection measures do not address direct habitat loss or disturbance, but can be used to reduce sensory disturbance to caribou during specified time periods.

Protected/conservation areas that prohibit specified activities should be used to protect the most sensitive habitats, including core calving and post-calving areas and key water crossings. Mobile caribou protection measures could be used at the same time to protect calving and post-calving caribou outside these core areas.

(See more details in suggested scenario above).

- *What is an appropriate buffer size around migratory corridors, water crossings and land bridges to protect caribou and caribou habitat? Why?*

The BQCMB recommends 10 km, which is the distance established in the Caribou Protection Measures in place since 1978 in federal regulations. Review boards, regulators and industry have accepted this buffer size.

Objective 3: Maintain the integrity of sensitive habitats.

- The BQCMB has a long history of advocating for protection of calving and post-calving areas, including a position paper which made recommendations to Beverly and Qamanirjuaq range jurisdictions' governments and land use planning and environmental assessment organizations in 2004, and numerous written submissions and verbal statements to Nunavut Planning Commission meetings over the course of the territory-wide land use planning process. We would be happy to provide any of these materials to the BCRP Working Group.
- There are multiple references in the Discussion Document to the protected area designations proposed in the Draft Nunavut Land Use Plan (e.g., pp. 37 and 40). What this designation means for caribou habitat protection and for land users (e.g., what types of activities will be prohibited) should be described.
- Except for calving and post-calving areas and selected water crossings and land bridges, using any type of area-based designations such as conservation areas or areas in which specific mitigation measures would be required is not considered. The BQCMB would urge the Working Group to consider that the integrity of the winter range also needs to be maintained, and wildfires may be the main threat to winter range currently, but disturbance from mineral exploration and development could occur in future.
- Conservation areas/zones established through land use planning, which are not permanent but can be reviewed and revised regularly, should be considered as an option for all seasonal habitats in all RAAs.

Discussion Questions:

- *Should protected areas be established in the calving and post-calving and summer ranges to assist in maintaining the integrity of these important habitats?*

Yes, the BQCMB would absolutely support this approach (see above).

- *Are there areas of winter habitat that should be included in ENR's Fire Values at Risk database? Where are they?*

The larger areas that have not burned since 1965 in RAAs 3-5 and areas used as corridors between larger areas of mature forest should be assessed for inclusion in the database.

Enhanced monitoring and fire suppression efforts should be applied to these areas when possible. As the BQCMB states in the 2013-2022 management plan for the Beverly and Qamanirjuaq caribou herds (BQCMB 2014: 44), a land use management action that should be taken to help protect caribou and key habitats is: “Enhanced protection of key caribou winter ranges from fire should be recommended when herds are considered to be highly vulnerable, recognizing that fire is a natural part of the ecosystem.”

- *Should ENR investigate the feasibility of habitat restoration (e.g., planting trees in recently burned areas to accelerate recovery) in the winter range? Are there areas of particular importance?*

No, this would not be a feasible action. It would take many decades for trees to grow to maturity to provide suitable habitat for growth of lichens preferred by caribou. Natural post-fire regeneration would be preferable. A better use of resources would be to focus efforts on preventing fires in remaining mature forest.

Objective 4: Manage human access.

- It is stated (p. 47) that “The objective of managing human access into the Bathurst caribou range can be achieved by implementing Tool #4: Access Management and Planning.” However, the BQCMB agrees with the following statements in the Discussion Document (p. 48): “Once a road is built, it is very difficult to manage people’s use of and activities on the road. There are no effective means to regulate or prohibit people’s use of the road.”
 - Based on the experience of the BQCMB and the communities it represents in the NWT, Nunavut, Saskatchewan and Manitoba regarding roads and caribou, the Board has concluded that the only effective way to manage human access into the caribou range would be to restrict access through prohibiting construction of new roads.
 - To indicate its ongoing high level of concern about potential impacts of new roads on Beverly and Qamanirjuaq caribou ranges, in November 2011 the BQCMB passed a resolution on roads that stated: “The BQCMB believes that anticipated expansion of road networks associated with development and accessing the caribou ranges in MB, SK, NWT and NU will lead to the demise of mainland migratory caribou herds as known today.”

Discussion Questions:

- *Could community guardianship be used as an effective access management tool in some parts of the Bathurst range planning area?*

This should be investigated, as community guardianship could be an effective way to manage human access resulting from roads on some parts of the caribou range. However, it would likely require substantial investment of resources.

- *Are winter roads an effective management tool in the Bathurst winter range?*

No, winter roads on winter range increase access to caribou by providing a way for people from near and far to enter caribou range by road and also access a broader area by snowmachine. The BQCMB agrees that permanent all-season roads generally have greater potential for negative impacts on caribou than temporary winter roads, with the exception of winter roads that provide access to caribou winter range.

- *Are other approaches to managing human access possible?*

The most effective approach is to stop building roads on caribou range. No other effective approaches are known to the BQCMB. As stated in the Discussion Document, there are no effective means to regulate or prohibit people's use of roads once they are established.