

## TERMS OF REFERENCE

### PROJECT IDENTIFICATION:

Project Title: ***Management Plan for the Bathurst Caribou Herd***

### BACKGROUND:

It is recognized that the barren-ground caribou currently known as the Bathurst caribou herd have traditionally occupied the southeastern portion of the Northwest Territories (NWT), the western portion of Nunavut (NU) and the northern portion of Saskatchewan.

The continued well-being of this herd and the maintenance of its habitat requires coordinated and collaborative management, goodwill, and cooperation among management agencies, Aboriginal governments, Aboriginal organizations, and stakeholders.

The Bathurst Caribou Advisory Committee (BCAC) was established to advise on the management of the Bathurst caribou herd and its habitat, including addressing and reconciling the various factors affecting the herd, including harvest, predation, environmental conditions, and land disturbance. Its' objectives include the cooperative development of recommendations to manage Bathurst caribou and habitat, and to promote and strengthen communication and information sharing among member organizations. BCAC includes representatives from: the Government of the Northwest Territories, Government of Nunavut, Tłı̄chǫ Government, Wek'èezhìi Renewable Resources Board, Yellowknives Dene First Nation, Łutsel K'e Dene First Nation, Deninu Kue First Nation, Salt River First Nation, NWT Métis Nation, North Slave Métis Alliance, Athabasca Denesuline Ne Ne Land Corporation, Nunavut Tunngavik Inc., Burnside Hunters and Trappers Organization (Bathurst Inlet), Umingmaktok Hunters and Trappers Organization (Bay Chimo), Kugluktuk Hunters and Trappers Organization, , and the Kitikmeot Regional Wildlife Board.

A key responsibility of BCAC is the development of an updated Bathurst Caribou Management Plan (from the 2004 version). The management plan will act as an overall herd management document under which the Bathurst Caribou Range Plan (a draft is currently being consulted on) will sit. Both documents will also be captured in the Recovery Strategy for Barren-ground Caribou in the NWT, which is being developed in fulfillment of requirements of the *Species at Risk (NWT) Act*.

### OBJECTIVES:

The Bathurst Caribou Advisory Committee is seeking a qualified proponent for the preparation of an updated Bathurst Caribou Management Plan.

### SCOPE OF WORK:

The management plan may include, but is not restricted to management actions related to data collection, education, habitat, land use activities, predators and harvest. The development of an implementation approach/action plan should also be included in the scope of work.

The BCAC Technical Working Group has already developed a framework for the updated management plan. This specifies required sections for an updated management plan, as well as minimum required objectives (sharing responsibility, maintaining adequate caribou habitat, promote respect for caribou, maintaining healthy harvest, maintaining balance between caribou and predators, social issues, and implementation). It will also be important to articulate important knowledge gaps that could, over the long

term, impede the management of the herd. The Working Group's framework is attached for reference (Appendix 1).

The work will be guided by the following principles:

- The principles of conservation: maintenance of the natural balance of ecological systems; protection of wildlife habitat; and maintenance of vital, healthy wildlife populations capable of sustaining lawful harvesting needs.
- The rights of Indigenous users will be recognized and protected while recognizing the needs of other lawful harvesters and non-consumptive users.
- The Precautionary Principle.
- The best available scientific and traditional knowledge.
- The interconnection of caribou with other components of the physical, biological, and cultural environment and the influence of cumulative effects.
- The past, present, and future experience, knowledge, and values of northern peoples.
- The collaboration and cooperation of all BCAC member organizations to share information, coordinate activities, and develop consensus.

Once approved by BCAC, the final management plan will become a public document. The proponent should ensure that any detailed information that might imperil the herd (such as the precise locality of populations or their habitat) or that is considered confidential (such as specific details relating to traditional knowledge) does not appear in the main body of the management plan.

The successful proponent will be required to provide a preliminary (straw dog), first, second and final drafts of the management plan. To ensure the usefulness of the reviews, it is essential that all drafts be of high quality and as complete, accurate and readable as possible. Spelling errors, incorrect formatting, missing references (as applicable) and unexplained missing information should be avoided, even in the first submitted draft.

The development of the management plan should be approached as a collaborative process and the successful proponent should anticipate receiving extensive comments, questions and feedback on content, quality, conclusions and style after the submission and review of each draft. Drafts will be reviewed by the BCAC Technical Working Group, BCAC, and other expert reviewers as required (see schedule for more detail on which reviewers participate at each stage). The successful proponent will be expected to give due consideration to each of those comments and to incorporate them as appropriate into the report and/or respond to them appropriately.

The following documents will form the basis of the management plan and should be reviewed and considered by the successful proponent, as appropriate:

- BCAC Terms of Reference
- 2004 Bathurst Caribou Management Plan
- Draft Bathurst Caribou Range Plan
- Species Status Report for Porcupine Caribou and Barren-ground Caribou (*Rangifer tarandus groenlandicus*) in the NWT<sup>1</sup>
- Draft Recovery Strategy for Barren-ground Caribou in the NWT

The successful proponent should be aware that new contacts and sources of information may be identified by the Technical Working Group, BCAC, or other reviewers during their reviews of the management plan. The successful proponent will be expected to consider each new contact or information source identified and, if appropriate, integrate this new information into the final draft.

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[https://www.nwtspciesatrisk.ca/sites/default/files/bgc\\_and\\_pch\\_status\\_report\\_and\\_assessment\\_final\\_apr1117\\_0.pdf](https://www.nwtspciesatrisk.ca/sites/default/files/bgc_and_pch_status_report_and_assessment_final_apr1117_0.pdf)

## **BUDGET:**

The budget for this project is to be no more than \$20,000. **The resultant contract will be an all-inclusive fixed price contract. All work will be verified before invoices are paid.** Any required travel to BCAC meetings would be in addition to this amount.

## **CONSTRAINTS:**

The action of contacting individuals/organizations who may be in possession of information valuable to the completion of the management plan does not constitute either consultation or engagement. This activity represents the gathering of best available information only. The contractor is not responsible for conducting engagement or consultation.

BCAC does not fund or carry out original research and does not pay people honoraria for providing the best available information.

With respect to the inclusion of traditional knowledge in the status report, the successful proponent should adhere to the best practices outlined in the GNWT Traditional Knowledge Best Practices Summary (included as an appendix to these Terms of Reference). Where specific protocols and policies on traditional knowledge apply in the region or community, these should be followed by the successful proponent.

BCAC is both the author and the publisher of the management plan and component parts. The preparer(s) will be acknowledged in the plan, and the roles of other contributors will be recognized as well; however, it is essential that the management plan, the component parts and all drafts can be used, edited, reformatted, reproduced, modified, distributed, and shared, in whole or in part, by BCAC without infringing on the rights of the preparer. Preparers will be required to waive moral rights and cede copyright to the WRRB on behalf of BCAC.

## **DELIVERABLES:**

The successful proponent will provide preliminary (straw dog), first, second and final drafts of the management plan.

The successful proponent will be required to meet with the contract authority to review project requirements before beginning the work. The meeting can be by teleconference.

The successful proponent will review drafts with the contract authority and incorporate the input received from reviewers to the satisfaction of the contract authority. Comments and suggestions received from draft reviews should be addressed in a comment tracking sheet, which should be submitted with both drafts 2 and 3.

The successful proponent will provide progress updates when requested.

Figures and tables should be provided separately along with the final draft. Tables should be submitted as separate electronic files, using the Table function in Word or a spreadsheet program such as Excel. Figures should be submitted separately as electronic files. Figures should use a compressed image format such as JPEG. Image resolution needs only to be good enough to use in a report (150 dpi or lower). Where GIS maps are produced by the successful proponent, final versions of maps will be submitted in a JPEG format along with the species-specific ESRI Geographic Information System (GIS) projected feature files, and associated metadata, used to create the map. If the successful proponent does not have GIS capabilities, BCAC will be able to provide GIS support.

Any reproduced photos or figures in the report must be accompanied by a copy of permission for use. The successful proponent will be responsible for soliciting these permissions.

Preparers will be required to waive moral rights and cede copyright to the WRRB on behalf of BCAC. A signed waiver will be required before commencement of the contract. A template waiver is attached as an appendix.

**TERM OF THE CONTRACT:**

This is a multi-year contract. The contract as a whole will be completed no later than **March 31, 2020**.

**SCHEDULE:**

Stage	Time Period	Description	Responsibility
Preliminary draft	Apr 22 – June 3, 2019	Develop and submit a preliminary, straw dog management plan. Submit first invoice.	Contractor
	June 3 – Jul 15, 2019	Review preliminary draft; return comments/direction to contractor; authorize invoice payment.	BCAC Technical Working Group
Draft 1	Jul 15 – Aug 12, 2019	Develop draft 1 and submit to contract authority. Submit second invoice.	Contractor
	Aug 12 – Sept 30, 2019	Review draft 1, authorize invoice payment.	BCAC
Draft 2	Sept 30 – Oct 28, 2019	Develop draft 2 and submit to contract authority along with third invoice.	Contractor
	Oct 28 – Nov 25, 2019	Verify work - review draft 2 and ensure that comments on draft 1 have been adequately incorporated and/or addressed, authorize invoice payment	BCAC Technical Working Group
	Nov 25 – Dec 20, 2019	BCAC + designated expert review of draft 2.	BCAC + designed experts
	Dec 20, 2019 – Jan 31, 2020	Consolidate comments and return to the contractor	BCAC Technical Working Group
Draft 3	Jan 31 – Feb 28, 2020	Develop draft 3 and submit with final invoice.	Contractor
	Feb 28 – Mar 31, 2020	Verify work - review draft 3 and ensure that comments on draft 2 have been adequately incorporated and/or addressed, authorize invoice payment, close contract	BCAC Technical Working Group

**PROPOSAL EVALUATION CRITERIA:**

- Proposals **must** be received prior to **April 15, 2019**.
- Proposals **must** clearly state proposed total fees and expenses.
- Proposals **must** clearly state the qualifications of the proponent to perform the work being requested, the past experience of the proponent, and the methodology proposed to complete the

work (i.e., demonstrate a clear understanding of the resources that will be required to complete the work).

- Proposals **must** include names, telephone numbers, and email addresses for 2-3 references.

Proposals will be evaluated and rated by an evaluation committee, using predetermined criteria. The highest total score will determine the proposal that potentially provides the best value to BCAC. Detailed ratings and comments may be shared with BCAC.

Rating Criteria:

<p><b>Team:</b></p> <p>Describe the qualifications of key team members (i.e., the person or persons who would write the report) to do this work. If the work will be completed by a team, who will have the overall responsibilities for managing the project team? What experience does this person have managing a similar team? If the work will be completed by a team, specify the amount of time (or aspects of the work) that each team member will do. Provide resumes for key members of the project team.</p>	/35
<p><b>Methodology/Approach:</b></p> <p>Proponents should demonstrate their understanding of the work involved; explain their approach to meeting the stated objectives; identify significant factors, objectives, review periods, meetings, schedule, budget, concerns, reporting, and other significant events or activities.</p>	/30
<p><b>Proponent's Past Relevant Experience:</b></p> <p>Describe similar services provided in the past. Identify the location and dates of the work performed. Note: this section focuses on the firm's experience, whereas the Team section focuses on the team's individuals.</p>	/15
<p>Fees &amp; Expenses (lowest cost ratio): Propose a fee, plus estimates for disbursements. Prices should not include GST.</p>	/10
<p>Northern Incentive</p>	/10
<p>Total Score</p>	/100

## **Proposed Bathurst Management Plan Framework**

Over two meetings (October 11-12, 2017 and January 30 – February 1, 2018) the Technical Working Group (TWG) met to tackle the task of redrafting the 2004 Bathurst Caribou Management Plan. The following pages outline the TWG's proposed management actions categorized into six broad objectives. Many of the management actions in the 2004 Plan remain, with some slightly altered and new actions added.

### **Objective 1: Sharing Responsibility**

- Develop community capacity to be fully engaged in the process including undertaking monitoring programs and to share and use data.
  - A: Continue to seek funding to fund communities engagement and monitoring
  - A: Sharing information between communities – programs solutions and struggles
  - A: Communicating information builds capacity – learning and instilling responsibility
    - Both scientific and TK/IQ need to share information back and forth and with the public, make reports public and make information understandable
  - A: Training for community monitoring programs
- Establish trans-boundary and interagency cooperation agreements between Saskatchewan, Nunavut and the Northwest Territories to ensure consistency in managing the herd, particularly with governments and institutions of public government.
  - MOUs
- Creating opportunities for dialogue between knowledge holders (SEE promote respect)
  - Harvester Meeting
  - Annual status meeting
  - Elder's gathering
- Increase public and community understanding and appreciation of the Bathurst caribou herd through information and educational programs based on the different bodies of knowledge- Traditional Knowledge, Inuit Qaujimagatuqangit and science.
- Seek external partnerships with universities and other groups (i.e. WWF, mines)
- Develop a BCAC User Agreement?

## Objective 2: Maintaining Adequate Caribou Habitat

- Monitor changes in caribou behavior in response to environmental changes and human activity and identify ways to manage or mitigate any changes
- Maintain the integrity of caribou habitat and to remediate sites damaged through industrial activity, especially where calving grounds, post-calving and summering areas, migration routes, water crossings and wintering areas are involved
- Range planning (Reconcile Management Plan and Range Plan)
- Nunavut Land use planning and land use planning process
- Fire Management

## Objective 3: Promote Respect for Bathurst Caribou?

- Don't lose connection with caribou
- Traditional Laws
- Hunter education – facilitating sighting in your rifle, proper identification of caribou and anatomy to minimize wounding
  - a. Make information available to the hunters on the land where they are hunting, i.e. check stations (maps with information on the back)
- Transmission of TK/IQ and community knowledge – provide opportunities for knowledge exchange between elders and youth (hands on experience, caribou camps, on the land camps/programming)
  - a. Provide opportunities for oral transmission of knowledge
- Share knowledge between science and TK/IQ, community knowledge holders – creating opportunities, not simply community presentations
- Gatherings to facilitate sharing
  - a. Elder's sharing circles/gatherings
  - b. Annual Status Meetings
  - c. Gathering of communities to discuss community monitoring programs
  - d. Youth camps (include elders, i.e. Athabasca Denesuline youth-elder camps, Tundra Science Camp)
- Education at the schools
  - a. Elder story telling
  - b. Use the Developed Curricula-based material
  - c. Promote respect and educate our future leaders
- Share research and monitoring information in timely fashion
  - a. Community members included in monitoring are a huge asset
  - b. Community meetings during the surveys
- Management Plan Communication
  - a. Plain Language Version – Visual representation
  - b. Youth Focused explanation of plan to go to schools
  - c. Videos for social media
- Revisit communication material, tools and strategies on an annual basis at status meeting

**Comment [HSC1]:** This objective and issues surrounding it were parked so that the Bathurst Caribou Range Plan could be finalized and the Management Plan points to all of the work that went into that document.

**Comment [HSC2]:** Working title for this objective

- a. Update people on herd status, management actions in place
- o What is the responsibility of BCAC vs member organizations – Comm strategy
- o Effective Communication Tools can include: pamphlets, proper translation, plain language summaries, information for chamber of mines, industry, proponents, LWBs. Consider Caribou Summit in future, Bathurst Harvesters gathering (summary document), media – news outlets, radio (Tłıchq hour, local radio stations), websites, social media

#### **Objective 4: Maintaining Healthy Harvest**

- o Develop, publicize and implement community based hunting rules and territorial hunting regulations in order to avoid or minimize wounding and wastage.
- o Monitoring for compliance with community rules
- o Increase education and monitoring activity during peak harvesting periods.
  - o Objective: communicate why it is important to follow the rules
  - o Education and implementation plans to harvest caribou
  - o More community consultations and updates with feedback mechanisms
- o Improve the monitoring activities, reflecting harvest methods, involving community members in patrols, and promote compliance through education, giving out information to people.
- o Enforcing government regulations when in place.
- o Develop caribou population computer models to predict the impact of harvesting activity on the herd and identify appropriate harvest levels.
- o Adjust harvest levels and harvest activity in relation to the status of the herd in accordance with processes set out in land claim agreements and Territorial legislation.
- o Part of the annual review and status assessment, adaptive management

Also consider what is in the 2004 Management Plan on pages 13 and 14.

#### **Objective 5: Maintaining Balance Between Caribou and Predators**

Background: Relationship between predators and caribou

- o NWT vs NU vs SK, differences in people and management.
  - o Different spiritual beliefs
  - o Different expertise
  - o Different landscape
  - o Different management and programs in place
- o Where wolf predation is identified as being a factor in preventing the recovery of the Bathurst herd, provide support to wolf hunters and trappers to increase the number of wolves harvested on the Bathurst range. Calving and post-calving range are important.
- o Reference to the wolf feasibility assessment which considers several options for management
- o Reference to the grizzly bear biological assessment – WRRB Bathurst Hearings



## Objective 6: Implementation

- Ensure the plan is implemented and information about progress on management actions is shared with all stakeholders and users.
- Prepare a 5-year? Implementation Schedule for the monitoring and management actions identified in this plan including roles and responsibilities, budget estimates, and criteria for measuring progress and update this Schedule annually.
- Establish a secretariat to oversee implementation of the plan, to support, track and report on monitoring and management actions, to support an annual meeting and to support future reviews of the plan.
  - BCAC will be independent of any one group, like PCMB and BQCMB
  - Find funding for a secretariat (support staff)
  - Find funding for engagement, meetings, community support.
- BCAC meetings at least once a year to monitor and discuss the plan's implementation, to assess the status of the herd and to prepare an annual report on the implementation of the plan.
- Review and update the Plan at least every 5 years, or more frequently if required.
- Ensure that information on the status of the Bathurst herd and monitoring and management actions is available to all interested parties.

**Comment [HSC3]:** 3-year? To match with survey interval

## KNOWLEDGE GAPS/OUTSTANDING ISSUES:

- Climate Change
  - How will a changing climate impact people and people's relationship with caribou?
  - How will the distribution of animals change? Moose, beavers, porcupine, muskox, predators
  - How will environmental conditions change?
- Monitoring includes some actions that are research questions and not routine monitoring, could have a place here but need to explore more
  - Both science and TK
  - Fire management
  - Predator populations and predator rates
  - Establish relationships with universities
- Sale of meat
- Capacity of Board/Advisory Committee Representatives
  - Bringing information back to the communities
  - Separate processes for every herd/management plan/species
- Funding
  - PCMB has an operating budget of \$250,000 per year
  - Potential sources:
    - GNWT/GN/Govt of SK funding?
    - Polar Knowledge
    - Mines

## Monitoring Framework

### Objective

To monitor where the Bathurst herd is within its long-term population cycle (e.g. increasing/high, declining, or low) and factors affecting herd size to guide decisions about management actions.

**One deficiency in the monitoring framework is that it does not include TK/IQ, therefore another section of action items would have to be added.**

### Core Monitoring Actions

These monitoring actions are necessary at all times during the herd's natural cycle of abundance and should be the minimum level of monitoring for the herd.

- Design and implement community-based monitoring approaches to collect information on caribou movements, calf fall body weight, health, diseases and environmental conditions.
- Expand outfitter reporting to include information on caribou movements, health, diseases and environmental conditions. Obtain similar information from all harvesters and other land users, i.e. mines
- Monitor calf survival every year.
- Monitor for trends in the level of disease.
- Obtain annual estimates of harvest levels and locations.
- Compare herd distribution and harvest locations to accurately identify the proportion of the harvest that is from the Bathurst herd and the proportion that is from neighbouring herds.
- Investigate local caribou die-offs.
- Investigate cause of death for any deaths of collared cows.
- Monitor for trends in predator abundance.
- Determine the size of the herd every 3-5 years.
- Determine adult sex ratios every 3-5 years.
- Conduct distribution surveys
- Conduct trend analyses
- Increase the accuracy and rigor of harvest monitoring.

### Additional monitoring actions when the herd is declining in size

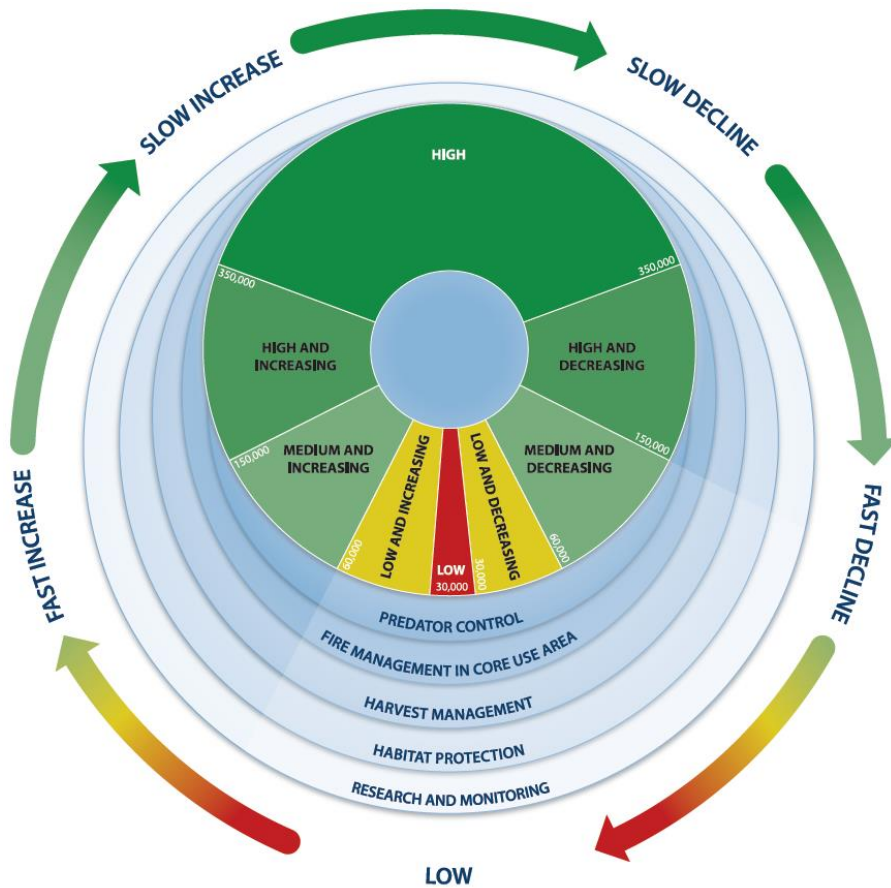
These monitoring actions should be applied in addition to the core monitoring actions when censuses or other indicators such as pregnancy rates, calf survival, or fall body condition suggest the herd has started to decline in size.

- Determine pregnancy rates.
- Monitor wolf and grizzly bear productivity.
- Determine the size of the herd every 3 years.
- Determine adult sex ratios every 3 years.

Additional monitoring actions when the herd size is low

These monitoring actions should be applied in addition to all actions listed above when herd size is at the low point in the cycle and indicators such as pregnancy rates, calf survival, trends in predator populations or fall body condition suggest the herd is unlikely to increase in size without intervention.

- Investigate predation rates of grizzly bears and wolves on caribou.
- Obtain information on each animal harvested, if there is harvest.
- Determine the size of the herd every 3 years.
- Determine adult sex ratios every 3 years.



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Draft Bathurst management wheel.

In investigating other caribou management plans the TWG was shown the Ungava Peninsula Caribou Aboriginal Round Table (UPCART) Strategy titled “A Long Time Ago in the Future: Caribou and the People of Ungava”. The TWG agreed that the caribou wheel presented in the UPCART Strategy was an easy-to-understand visual representation of the caribou cycle. The wheel can be manipulated to show the management actions that occur at different stages (population levels) of the Bathurst cycle. The wheel shown above is a draft wheel and the population thresholds shown at between each cycle phase are only shown as examples and do not reflect any agreement from the TWG. The TWG acknowledged there is more work to be done to define DRAFT thresholds that would have to be brought back to communities for engagement and consultation.

<sup>1</sup> Thank you to the Tłı̄ch̄ Government for providing the draft management wheel