Report on a Public Hearing
Held by the
Wek'èezhìı Renewable Resources Board
22-26 March 2010
5-6 August 2010
Behchokǫ̀, NT

&
Reasons for Decisions
Related to a Joint Proposal for the Management of
the Bathurst Caribou Herd

Wek'èezhìı
Renewable Resources Board

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LIST OF ACRONYMS

ENR	Environment & Natural Resources
GNWT	Government of the Northwest Territories
INAC	Indian and Northern Affairs Canada
IR	Information Request
NWT	Northwest Territories
TAH	Total Allowable Harvest
TG	Tłı̨chǫ Government
TK	Tłı̨chǫ Knowledge
WRRB	Wek'èezhìı Renewable Resources Board

1. PLAIN LANGUAGE SUMMARY OF REPORT

The Wek'èezhìı Renewable Resources Board (WRRB) is responsible for wildlife management in Wek'èezhìı and shares responsibility for monitoring and managing the Bathurst caribou herd. In 2009, the Government of the Northwest Territories (GNWT), Department of Environment and Natural Resources (ENR), reported that, in their view, the Bathurst herd had declined significantly and that urgent management actions were required.

In November 2009, the Tłı̨chǫ Government and ENR submitted the *Joint Proposal on Management of Caribou in Wek'èezhìı* to the Board, which proposed harvest limitations. The WRRB considered any restriction of harvest or component of harvest as the establishment of a total allowable harvest (TAH). The WRRB complied with Section 12.3.10 of the Tłı̨chǫ Agreement and held a public hearing in Behchokǫ̀, NT in two parts on March 22-26, 2010 and August 5-6, 2010.

The WRRB has concluded, based on all available information that a conservation concern exits for the Bathurst caribou herd and management actions are vital for herd recovery. However, rather than implementing a TAH, the WRRB has been persuaded by ENR's and Tłı̨chǫ Government's argument to implement a harvest target instead. The WRRB recommends that the Minister of ENR and Grand Chief of the Tłı̨chǫ Government establish a harvest target of 300 Bathurst caribou per year for 2010/11, 2011/12, and 2012/13. Harvest should be selective towards bulls in order to achieve an 85:15 ratio of bulls harvested to cows. Further, the Board recommends that all commercial, outfitted and resident harvesting of the Bathurst herd in Wek'èezhìı will be set to zero for 2010/11, 2011/12, and 2012/13.

The WRRB was requested to make recommendations regarding the Bluenose-East caribou herd. Therefore, the Board proposes that ENR and the Tłı̨chǫ Government establish a harvest target of 2800 Bluenose-East caribou per year for 2010/11, 2011/12, and 2012/13. The annual harvest target and its allocation should be finalized in discussions between the existing wildlife co-management boards and Aboriginal governments in the Sahtu, Dehcho and Tłı̨chǫ. Harvest should be selective towards bulls in order to achieve an 85:15 ratio of bulls harvested to cows. The Board further recommends that all commercial, outfitted and resident harvesting of the Bluenose-East herd in Wek'èezhìı will be set to zero for 2010/11, 2011/12, and 2012/13.

The WRRB was also requested to make recommendations to ENR and the Tłı̨chǫ Government regarding the Ahiak caribou herd; however, the existing information related to the Ahiak caribou herd is not sufficient for the Board to recommend a target for Aboriginal harvesting. The Board recommends that all commercial, outfitted and resident harvesting of the Ahiak in Wek'èezhìı will be set to zero for 2010/11, 2011/12, and 2012/13.

The WRRB has made additional caribou management and monitoring recommendations to ENR and the Tłı̨chǫ Government, including the implementation of the *Special Project, Using Tłı̨chǫ Knowledge to Monitor Barren Ground Caribou* Program, implementation of detailed scientific and Tłı̨chǫ Knowledge (TK) monitoring actions, development and implementation of both TK and scientific conservation-education programs, implementation of the Board's suggested approach to information flow for an adaptive co-management framework and development and implementation of a Bathurst caribou management plan.

The WRRB also recommends to the Minister of Indian and Northern Affairs Canada (INAC) and ENR to collaboratively develop best practices for mitigating effects on caribou during calving and post-calving, including the consideration of implementing mobile caribou protection measures and to monitor landscape changes, including fires and industrial exploration and development, to assess potential impacts to caribou habitat.

The WRRB was requested to make recommendations to ENR and the Tłı̨chǫ Government regarding wolves and bison. The Board recommends that the harvest of wolves should be increased through the suggested incentives, except for assisting harvesters to access wolves on wintering grounds and that focused wolf control not be implemented. If Tłı̨chǫ Government and ENR believe that focused wolf control is required, a management proposal shall be provided to the WRRB for its consideration. As well, the Board recommends that a joint management proposal for wood bison in Wek'èezhìı be submitted by the fall of 2011 to substantiate the establishment of zones and quotas made through the Interim Emergency Measure.

The WRRB recommends that ENR, Tłı̨chǫ Government and INAC implement its recommendations no later than January 1, 2011. ENR's Emergency Interim Measures, put into effect on January 1, 2010, should remain in place until then. The Board further recommends that Tłı̨chǫ Government and ENR conduct consultations regarding the Recommendations Report prior to January 1, 2011.

The WRRB believes that limiting the harvest of the Bathurst, Bluenose-East and Ahiak caribou can have a great impact on recovery. The decisions have been structured to have the least impact on caribou users and the greatest benefit to caribou that we can provide at this time.

2. INTRODUCTION

2.1 The WRRB and Management of the Bathurst Caribou Herd

The WRRB was established to perform the wildlife management functions set out in the Tłı̨chǫ Agreement in Wek'èezhìı[1] and shares responsibility for the monitoring and management of the Bathurst caribou herd. In 2009, ENR notified the WRRB and caribou users in Wek'èezhìı that, in its view, significant declines had occurred in the Bathurst caribou herd and that management actions were required immediately.

As a part of its ongoing management responsibilities and in light of evidence of a continuing decline in the Bathurst herd, the WRRB considered the need to implement a TAH for this herd through a public hearing process. That hearing was held in Behchokǫ̀, NT in two parts on March 22-26, 2010 and August 5-6, 2010.

2.2 WRRB Mandate & Authorities

The WRRB was established to perform the functions of wildlife management in Wek'èezhìı (Figure 1) by the Tłı̨chǫ Agreement. The Board's legal authorities came in to effect at the time the Agreement was ratified by Parliament.[2] The WRRB's major authorities and responsibilities in relation to wildlife are set out in Chapter 12 of the Tłı̨chǫ Agreement.

As required by sections 12.5.1 and 12.5.4 of the Tłı̨chǫ Agreement, any Party[3] proposing a wildlife management action in Wek'èezhìı must submit a management proposal to the WRRB for review. This includes the establishment of total allowable harvest levels. Prior to making a determination or recommendation, the WRRB must consult with any body with authority over that wildlife species both inside and outside of Wek'èezhìı. Under the section 12.5.5 of the Agreement, only the WRRB may impose a total allowable harvest for Tłı̨chǫ citizens, and such action may only be taken for the purposes of conservation.

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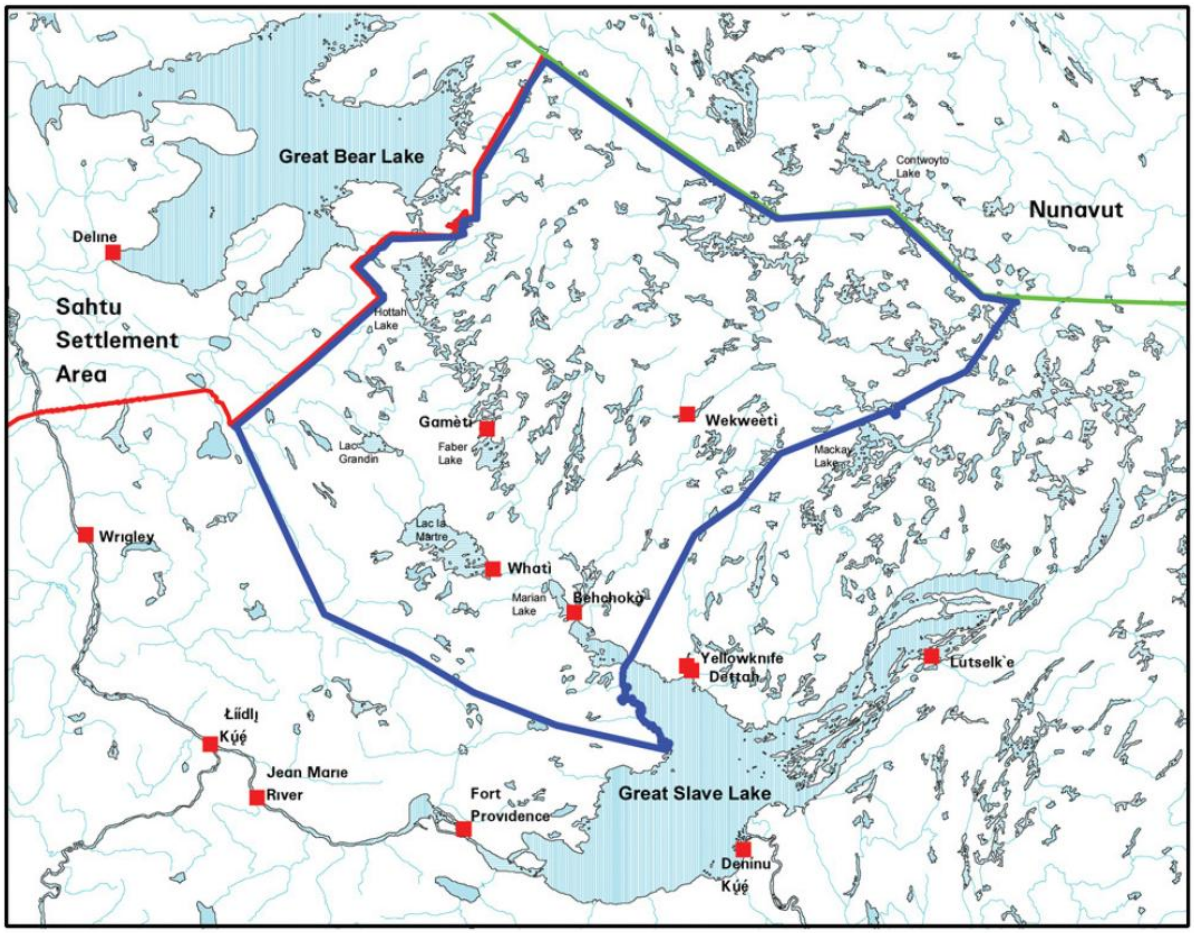
[1] Section 12.1.2 of the *Land Claims and Self-Government Agreement Among the Tłı̨chǫ and the Government of the Northwest Territories and the Government of Canada*, Indian Affairs and Northern Development, Ottawa, 2003 (hereinafter the "Tłı̨chǫ Agreement").

[2] *Tłı̨chǫ Land Claims and Self-Government Act*, S.C. 2005, c.1. Royal assent February 15, 2005. See s.12.1.2 of the Tåîchô Agreement.

[3] As defined in the Tłı̨chǫ Agreement, "Parties" means the Parties to the Agreement, namely the Tłı̨chǫ, as represented by the Tłı̨chǫ Government, the Government of the Northwest Territories and the Government of Canada.

WEK'ÈEZHÌI



Legend

Wek'èezhìı boundary line

Nunavut boundary line

Sahtu settlement area boundary line

Figure 1: Wek'èezhìi Management Area

12.5.5 The Wek'èezhìı Renewable Resources Board shall

(a) make a final determination, in accordance with 12.6 or 12.7, in relation to a proposal

(i) regarding a total allowable harvest level for Wek'èezhìı, except for fish,

(ii) regarding the allocation of portions of any total allowable harvest levels for Wek'èezhìı to groups of persons or for specified purposes, or

(iii) submitted under 12.11.2 for the management of the Bathurst caribou herd with respect to its application in Wek'èezhìı; and

(b) in relation to any other proposal, including a proposal for a total allowable harvest level for a population or stock of fish, with respect to its application in Wek'èezhìı recommend implementation of the proposal as submitted or recommend revisions to it, or recommend it not be implemented.

The WRRB acts in the public interest. It is an institution of public government, a co-management board which makes its decisions on the basis of consensus. The WRRB works closely with Tłı̨chǫ communities, Tłı̨chǫ citizens and the Tłı̨chǫ Government.

Wildlife management is a central and vital component of the Tłı̨chǫ Agreement.[4] The use of wildlife by Tłı̨chǫ citizens for sustenance, cultural and spiritual purposes is protected by law and may only be affected in the manner set out in Chapter 12. The most important provisions in relation to the WRRB's role in the limitation of Tłı̨chǫ citizens harvesting are set out in the Tłı̨chǫ Agreement as follows:

12.6.1 Subject to chapters 15 and 16, a total allowable harvest level for Wek'èezhìı or Mǫwhì Gogha Dè Nı̨ı̨tłèè (NWT) shall be determined for conservation purposes only and only to the extent required for such purposes.

12.6.2 Subject to 12.6.1 and chapters 15 and 16, limits may not be prescribed under legislation

(a) on the exercise of rights under 10.1.1 or 10.2.1 except for the purposes of conservation, public health or public safety; or
(b) on the right of access under 10.5.1 except for the purposes of safety.

12.6.3 Any limits referred to in 12.6.2 shall be no greater than necessary to achieve the objective for which they are prescribed, and may not be prescribed where there is any other measure by which that objective could reasonably be

[4] See s.12.1.1 of the Tłı̨chǫ Agreement.

achieved if that other measure would involve a lesser limitation on the exercise of the rights.

12.6.5 In exercising its powers in relation to limits on harvesting, the Wek'èezhìı Renewable Resources Board shall give priority to

(a) non-commercial harvesting over commercial harvesting; and
(b) with respect to non-commercial harvesting,
    (i) Tłı̨chǫ Citizens and members of an Aboriginal people, with rights to harvest wildlife in Wek'èezhìı, over other persons, and
    (ii) residents of the Northwest Territories over non-residents of the Northwest Territories other than persons described in (i).

The WRRB must comply with the Tłı̨chǫ Agreement if it is contemplating any limitation to Tłı̨chǫ citizens harvesting, including any limitation to the harvesting of Bathurst caribou. More specifically, section 12.6.1 (see above) specifies that a total allowable harvest level shall be determined for conservation purposes only and only to the extent required for such purposes. The Tłı̨chǫ Agreement defines conservation as follows:

"conservation" means
    (a) the maintenance of the integrity of ecosystems by measures such as the protection and reclamation of wildlife habitat and, where necessary, restoration of wildlife habitat; and
    (b) the maintenance of vital, healthy wildlife populations capable of sustaining harvesting under the Agreement.

In addition to the substantive legal protection for Tłı̨chǫ citizen's harvesting rights set out in the Tłı̨chǫ Agreement, the WRRB is also bound by procedural requirements because paragraph 12.3.10 makes it mandatory for the WRRB to hold a public hearing when it intends to consider establishing a TAH in respect of a species or a population such as the Bathurst caribou herd.

3. PREVIOUS WRRB RECOMMENDATIONS RELATED TO BATHURST CARIBOU MANAGEMENT

3.1 March 2007 Public Hearing

In December 2006, ENR submitted a management proposal recommending management actions to reduce harvest levels in a manner consistent with the Tłı̨chǫ Agreement and the Bathurst Caribou Management Plan for the WRRB's consideration. The proposed management actions were intended to limit the harvest to 4% of the 2006 herd size for a total of 5120 caribou, including eliminate all commercial meat tags held by Tłı̨chǫ communities, reduce number of tags for non-resident hunters and non-resident alien

hunters from 2 to 1, and reduce tags for all non-Hunter & Trapper Association (HTA) and HTA outfitters from 1559 to a total of 350.

Due to the significance of the management actions proposed, and the fact that the WRRB, as a new organization, had not yet heard from other Parties affected by the ENR proposal, the Board decided to conduct a public hearing before making any decisions on the proposal. The WRRB held the public hearing on March 13-14, 2007 in Behchokǫ̀, NT.

During the course of the hearing, ENR officials admitted that the Minister and Department had not consulted the Tłı̨chǫ Government about their proposal, as required in the Tłı̨chǫ Agreement, before it was submitted to the Board. Once the evidentiary phase of the proceeding was completed, the Board decided to adjourn the proceeding in order to give ENR and the Tłı̨chǫ Government time to initiate a consultation process. Specifically, ENR and the Tłı̨chǫ Government were directed to report to the WRRB on the outcome of their consultations by April 23, 2007.

On April 20, 2007 and April 23, 2007 respectively, the Tłı̨chǫ Government and ENR filed letters with the WRRB indicating that the consultation process had not been concluded, thereby requiring an additional 90 days to finish the consultations. The WRRB advised ENR and the Tłı̨chǫ Government, in early May 2007, that it had decided to extend the period of adjournment in the proceeding by 30 days to permit the Parties to conclude the consultations by June 1, 2007. The Board indicated that if the consultation efforts were not producing substantial progress, it would bring the proceeding to a close and prepare its Recommendations Report for submission to the Minister of ENR and the Tłı̨chǫ Government.

3.1.1 Emergency Measure

On April 17, 2007, the Minister of ENR advised the Tłı̨chǫ Government and the WRRB that the Big Game Hunting Regulations had been amended to reduce the number of tags available for outfitted hunts for barren-ground caribou in Unit "R" to 750 for the 2007 season. The letter noted that this decision was made under the authority of Section 12.5.14 of the Tłı̨chǫ Agreement as ENR considered its action necessary due to an emergency situation regarding declining populations of the barren-ground caribou.

3.1.2 Board Decision

On May 30, 2007 and June 4, 2007 respectively, the Tłı̨chǫ Government and ENR submitted letters to the Board indicating that they were making substantial progress but required an extension to September 28, 2007 in order to develop a new joint caribou management proposal. The WRRB was concerned that any further adjournments could adversely affect the interests of other Parties affected by the proposal. ENR had already

taken steps to implement portions of its proposal on the grounds that an emergency situation existed. Further extension of the proceeding to accommodate consultation which, in the Board's view should have taken place before the proposal was advanced, seemed inconsistent with the urgency asserted by ENR. For these reasons, the WRRB decided not to grant a further adjournment of its proceeding.

Based on the WRRB's review of the evidence presented during the proceedings, the Board recommended that ENR's proposal to undertake management actions to reduce the harvest of the Bathurst caribou herd not be implemented as submitted. The WRRB strongly encouraged ENR and the Tłı̨chǫ Government to continue their consultations towards the development of a joint proposal for the management of the Bathurst caribou herd. Additionally, the WRRB indicated that any future management actions that propose to limit any component of the harvest to a particular number, including zero, would be treated as a proposal for the establishment of a total allowable harvest.

3.2 Barren-ground Outfitter's Association Tag Request

In October 2007, the Barren-ground Caribou Outfitter's Association requested that the tag quota for caribou outfitters be restored to 1260 for the non-HTA outfitters and 396 for the HTA outfitters due to financial hardships experienced by the outfitters and supporting businesses. The Board did not recommend the tag increase to the GWNT as the WRRB is not mandated to address issues of economic viability. Further, the WRRB considered any requests for changes to tag quotas to be premature prior to the submission of a joint proposal regarding the management of caribou in Wek'èezhìı by ENR and Tłı̨chǫ Government.

3.3 Wildlife Research Permit Applications

3.3.1 2008 Application

In February 2008, ENR requested approval from the WRRB to deploy fourteen additional satellite/GPS collars on Bathurst caribou to bring the total deployed to 30. The Board agreed to support ENR's request with two conditions: 1) ENR conduct meetings with the Tłı̨chǫ Government and the Tłı̨chǫ communities to discuss the need for the extra collars and 2) ENR provide the WRRB with a written summary of the views expressed during the meetings by Tłı̨chǫ representatives or residents.

ENR approached the Tłı̨chǫ Assembly and Elder's Advisory Committee to discuss the need for the extra collars. The proposal was rejected. No written summary of the meeting was provided.

3.3.2 2009 Application

In February 2009, ENR submitted an application for monitoring health, condition and contaminants in the Bathurst caribou herd, including the harvest of up to 60 animals (20 each of bulls, cows, and calves) to assess nutritional status, pregnancy rate, detection and tracking of disease, parasites and contaminants. The Board supported the monitoring actions with the following conditions: 1) the Chief of Gamètì choose the hunters to harvest the animals for collection, 2) an elder provide guidance as required during the collection, 3) a WRRB Tłı̨chǫ -appointee help facilitate between harvesters and ENR staff during the collection, and 4) a meeting prior to the collection to ensure that all involved understood the procedures required and the rationale for collection.

The health and condition monitoring occurred in April 2009. None of the WRRB recommendations were implemented.

3.3.3 2010 Application

In February 2010, ENR submitted an application for research and monitoring activities including spring and fall composition surveys, deployment of thirteen satellite collars, impromptu aerial surveys, and body condition sampling. The Board supported the proposed work with the condition that the spring harvest for body condition sampling only take place outside of the no hunting zone, established in January 2010. Fall body condition sampling would require ENR to apply for a new wildlife research permit.

ENR conducted the spring composition survey and deployed the collars. Body condition sampling was conducted in March 2010 by granting YKDFN and Wekweètì the authority to harvest within the established no hunting zone but outside of Wek'èezhìı. ENR provided their decision with reasons for varying the WRRB's recommendation only after receiving a written request from the Board.

3.4 Interim Rule for Management Proposals

Section 12.5.1 of the Tłı̨chǫ Agreement requires a Party before taking "*any action for management of wildlife in Wek'èezhìi to submit its proposals to the WRRB for review*". Under section 12.3.6, the WRRB has the authority to make rules respecting the procedure for making applications to the Board. Based on past experience and in anticipation of receiving a management proposal on Bathurst caribou, the WRRB drafted an Interim Rule for Management Proposals.

On August 26, 2009, a draft Interim Rule for Management Proposals was submitted as a guide for the Parties to the Agreement in making management proposal submissions, including actions taken in the issuance of licences, permits and other authorizations.

The Rule has three components:

1. An outline of the types of actions that must be brought before the WRRB for recommendation, including actions related to the NWT Wildlife Act and regulations, NWT Species at Risk Act and regulations, NWT Forest Fire Management Policy, Fisheries Act and regulations, and Migratory Birds Convention Act and regulations;
2. A description of the required contents of a proposal; and
3. A timeline and process for review of a proposal.

The Board anticipates further work with Parties to the Agreement before the draft Interim Rule is fully completed and implemented.

4. SUMMARY OF PROCEEDING

4.1 Request for Joint Proposal

On July 31, 2009, the WRRB requested a joint wildlife management proposal, by the end of October 2009, addressing the continuing steep decline of the Bathurst Caribou Herd from ENR and the Tłı̨chǫ Government. The Tłı̨chǫ Government responded at the end of August 2009 notifying the Board that discussions with ENR officials had commenced in an effort to have a joint proposal filed on time. As part of the process, Tłı̨chǫ Government intended to involve Tłı̨chǫ communities and traditional knowledge experts in the development of the joint proposal.

Anticipating the need for a public hearing before the end of December 2009, the Board requested reports detailing monitoring activities conducted by ENR on the Bathurst caribou herd from 2006 to present. On October 21, 2009, the Board provided guidance on the suggested content of the joint management proposal, including the need for immediate actions and solutions to alleviate the current decline in the Bathurst caribou herd. The Board further advised that it was prepared to consider a management proposal for Wood Bison concurrently with the Bathurst caribou proposal as a means to consider the increased opportunities for harvest of wood bison to partially replace caribou.

4.2 Receipt of Joint Proposal

On November 5, 2009, the Tłı̨chǫ Government and ENR submitted the *Joint Proposal on Caribou Management Actions in Wek'èezhìı*, which proposed nine management actions and eleven monitoring actions (Appendix A). While there was agreement on the majority of actions proposed, there was no agreement reached on Aboriginal harvesting. The WRRB considered any restriction of harvest or component of harvest as the establishment of a TAH and, therefore, was required to hold a public hearing.

Public notice of the WRRB decision to conduct a public hearing concerning the possible setting of a TAH for the Bathurst caribou herd was published on November 11, 2009.

The notice was also faxed to Tłı̨chǫ communities and other potentially interested organizations in and out of Wek'èezhìı. Interested Parties were invited to contact the WRRB for inclusion on the distribution list and to formally apply for Intervenor status by November 18, 2010. There were two proponents, ENR and Tłı̨chǫ Government, one expert witness, and nineteen registered Intervenors (Appendix B). In addition, the WRRB heard from 50 members of the registered general public during the hearing.

Registered Parties were notified on November 30, 2009 of the Board's decision to limit the scope of the public hearing to Actions 1 through 5 of the joint proposal (see Table 1 below).

The actions in Table 1 prescribed limitations on harvest. All other proposed actions would be addressed through written submissions to the Board in accordance with the schedule of the Proceeding. The proceeding and hearing were conducted on the basis of the WRRB's *Rules of Procedures, November 6, 2009*.

Originally scheduled for January 11-13, 2010, the public hearing eventually took place March 22-26, 2010. Notification of the revised proceeding schedules were posted publicly on December 3, 2009, January 20, 2010 and February 11, 2010.

An online public registry was established on November 11, 2009. On February 2, 2010, the Board's new and improved website went live, with a more navigable public registry (http://www.wrrb.ca/public-information/public-registry). WRRB staff made ongoing efforts to ensure that all Registered Parties were aware of all the information available on the public record.

4.3 Information Requests

In order to obtain the information necessary for the WRRB to consider as part of the record of this proceeding, a series of Information Requests (IRs) were issued to the registered Parties. The IRs and responses are all available on the online public registry.

IR No. 1 was issued November 16, 2009, requesting supporting documentation and additional rationale on the proposed management and monitoring actions. ENR provided responses on November 30, 2009, December 11, 2009 and January 15, 2010; Tłı̨chǫ Government provided responses on December 21, 2009.

IR No. 2 was issued December 3, 2009, requesting additional information related to Intervenor requests. ENR provided responses on December 18, 2009 and January 5, 2010; Tłı̨chǫ Government provided responses on December 21, 2009 and January 15, 2010.

Table 1: Actions 1 through 5 of the Joint Proposal on Caribou Management Actions in Wek'èezhìı

No.	Issue	Actions to help herds recover/*Lead Government*	Rationale
1.	Reduce harvest pressure	Eliminate all commercial meat tags held by Tłı̨chǫ and all other Aboriginal communities. Status of allowing meat tags to be reconsidered after the 2012 calving ground photo census. /*Joint by both governments*	Tłı̨chǫ communities have not used commercial meat tags for many years and there has been no interest expressed by Tłı̨chǫ citizens to use caribou for this purpose. No public interest implications in Wek'èezhìı. This will require regulation changes.
2.	Reduce harvest pressure	Eliminate all tags for outfitting for the hunting season starting in the summer of 2010 until 2012 included. Status of outfitting to be reconsidered after the 2012 calving ground photo census. /*Joint by both governments*	Conservation measure and under Tłı̨chǫ Agreement, this type of harvest must be addressed first. Regulation changes required.
3.	Reduce harvest pressure	Eliminate all resident hunter harvest. Allocation of tags to resident hunters to be reconsidered after the results of the 2012 calving ground photo census. /*Joint by both governments*	Conservation measure and under Tłı̨chǫ Agreement, this type of harvest must be addressed first. Regulation changes required.
4.	Reduce harvest pressure (females)	**ENR RECOMMENDATION** Eliminate all harvest of Bathurst caribou females Limited female harvest may be possible for experienced hunters on the Bluenose-East and the Ahiak herds and assisted through a joint partnership with ENR/ITI. Numbers	Conservation measure and under Tłı̨chǫ Agreement. Regulation changes required. Subject to approval by SRRB, BQCMB and Nunavut for recovery actions outside

No.	Issue	Actions to help herds recover/*Lead Government*	Rationale
		harvested to be discussed further and biologists would be part of the hunt to assess health and condition of caribou harvested. No harvest of cows would be allowed when herds are mixed together on the winter range. Instead a careful harvest of males is suggested. Location of caribou of various herds to be monitored by tracking satellite collared females and a no hunting zone could be established for the area where Bathurst collared animals are situated every season. **TŁĮCHǪ GOVERNMENT** No restriction on female harvest.	Wek'èezhìı.
5.	Reduce harvest Pressure (males)	**ENR RECOMMENDATION** A) Bull harvest only on all herds for Aboriginal harvesters (caribou with no antlers only in the winter). B) Only a limited number of bulls mixed with the Bathurst caribou cows will be available for harvest and the number will be	Conservation measure and under Tłįchǫ Agreement A tag allocation system for Aboriginal harvest may also be considered to ensure that no over

No.	Issue	Actions to help herds recover/*Lead Government*	Rationale
		regulated through a tag allocation system to avoid over-harvesting of the Bathurst herd bulls. Subject to changes if results of fall composition surveys reveal a low number of bulls in the herd. A low ratio of bulls to cows can be a concern for the health of the herd. Recommendation is to harvest Bluenose-East and Ahiak caribou males in the fall. Again, mobile harvesting zones to be determined based on the seasonal distribution of collared caribou. **TŁĮCHǪ GOVERNMENT** No restriction on male harvest.	harvesting of bulls take place on any herds. Regulation will be required Subject to approval by SRRB, BQCMB and Nunavut for recovery actions outside Wek'èezhìı.

IR No. 3 was issued February 4, 2010, requesting clarification on information provided during IRs No. 1 and 2 as well as additional supporting documentation. ENR provided a response on February 23, 2010; Tłı̨chǫ Government did not provide a response.

IR. No 4 was issued June 23, 2010, requesting additional documents and information related to Intervenor requests. ENR provided a response on July 2, 2010.

5.4 Interim Emergency Measures

On January 1, 2010, ENR implemented interim emergency measures, which included the closure of barren-ground caribou commercial, non-resident and resident harvesting in the North and South Slave regions and the closure of all harvesting in a newly established no-hunting conservation zone (Figure 2). Further regulations were implemented to provide access to wood bison by establishing two new bison zones in the North Slave region. This decision was made under the authority of Section 12.5.14 of the Tłı̨chǫ Agreement as ENR considered its action necessary due to an emergency situation regarding declining populations of the Bathurst caribou herd. The interim measures will remain in effect until the WRRB's recommendations on barren-ground caribou management in Wek'èezhìı are implemented.

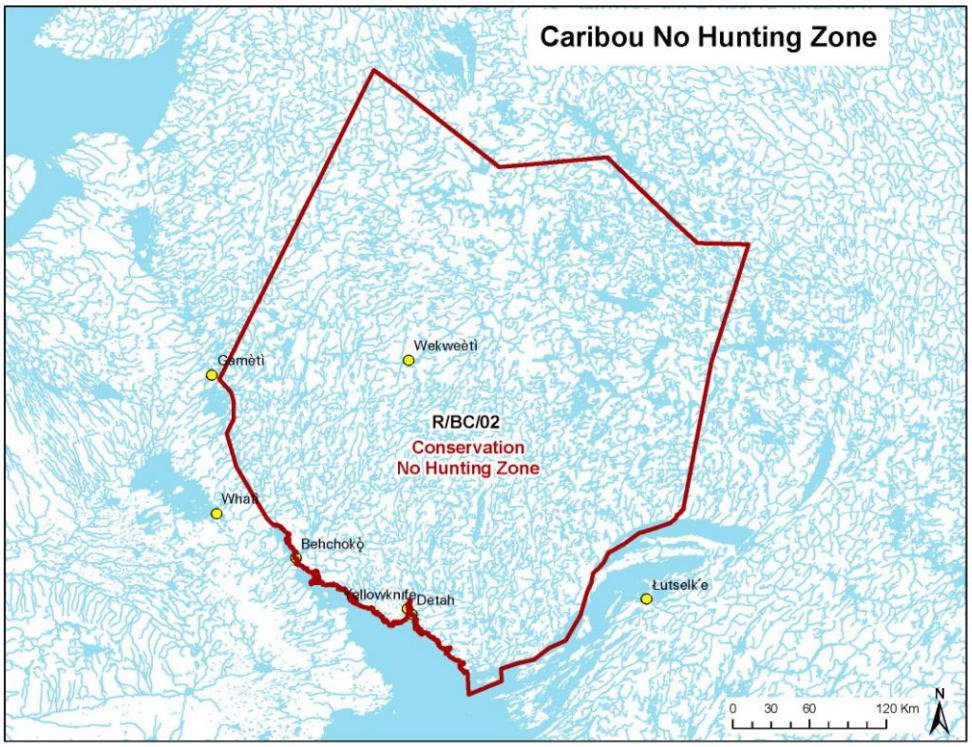


Figure 2: No-Hunting Conservation Zone, R/BC/02[5]

[5] ENR-GNWT 2010. http://www.enr.gov.nt.ca/_live/documents/content/No-Hunting_Conservation_Zone_Map.pdf

5.5 Legal and Procedural Issues in the 2010 Proceeding

On November 24, 2009, the Board advised all registered Parties that any legal or procedural issues related to the proceeding must be identified by December 11, 2009. Four Parties, Bathurst Inlet Developments, Shoshone Wilderness Adventures, the North Slave Métis Alliance and Ms. Karen McMaster identified issues of concern. A compilation of the issues was circulated to all Parties to the proceeding on February 1, 2010. The Parties were offered the opportunity to respond or comment on any of these legal issues. Only one party, ENR responded to any of the issues. The Board considered the matters raised by the Parties, the response and the information available on the record for the proceeding in making its ruling on the issues (Appendix C).

5.6 Public Hearing, March 22-26, 2010

All registered Parties were required to provide written submissions detailing their argument related to the scope of the hearing by no later than March 3, 2010. Hearing presentations were requested for March 12, 2010. All written submissions and hearing presentations were posted to the public registry.

To ensure that procedural, legal and administrative items were addressed prior to the public hearing, the Board held a pre-hearing conference on March 5, 2010 in Yellowknife. The WRRB issued public hearing instructions to the registered Parties as required and, further to recommendations made by Parties during the pre-hearing conference, a revised set of instructions were issued on March 8, 2010.

During the March 22-26, 2010 hearing in Behchokǫ̀, NT, the registered Parties gave oral presentations and asked question of the other Parties. Registered public were also given the opportunity to address the WRRB in the hearing. A full written transcript of each day and evening session of the hearing was produced and is available on the public registry. Recommendations provided by Intervenors and registered public were summarized by Board staff (Appendix D).

Once the evidentiary phase of the proceeding was completed, the Tłı̨chǫ Government requested the WRRB adjourn the hearing in order to give ENR and the Tłı̨chǫ Government time to collaboratively complete the joint management proposal as originally requested. The Board agreed to grant the application for adjournment until May 31, 2010, with the following conditions:

- Tłı̨chǫ Government and ENR must provide an interim report on progress by April 30, 2010, including a summary of consultations conducted with other Parties. If substantial progress is not made by April 30, the Board reserved the right to reconvene for final argument and proceed with its decision;
- Board staff and independent expert participate in the process as observers; and
- Revised proposal filed by May 31, 2010 must address harvest numbers and allocation of harvest for both Bathurst and Bluenose-East caribou.

The Tłı̨chǫ Government and ENR met throughout April and May 2010 and provided the requested progress report on April 30, 2010. WRRB staff and independent expert were present at negotiations as observers.

5.7 Receipt of Revised Joint Proposal

On May 31, 2010, the Tłı̨chǫ Government and ENR submitted the *Revised Joint Proposal on Caribou Management Actions in Wek'èezhìı*, which revised the original management and monitoring actions as well as incorporating an adaptive co-management framework and rules-based approach to harvesting (Appendix E). The Tłı̨chǫ Government and ENR were able to reach an agreement on Aboriginal harvesting.

Following review of the information and comments from registered Parties, the WRRB accepted the proposal as submitted and considered it a revision only. Therefore, on July 12, 2010, the Board was able to notify the public of the final schedule to reconvene its public hearing to hear closing arguments from registered Parties. The public record was reopened on July 12, 2010.

5.8 Public Hearing, 5-6 August 2010

On July 16, 2010, the WRRB issued instructions regarding the requirements for closing arguments to the registered Parties. Closing argument speaking notes and/or presentations were requested for July 30, 2010. All speaking notes and presentations were posted to the public registry.

During the August 5-6, 2010 hearing in Behchokǫ̀, NT, the Tłı̨chǫ Government and ENR gave an oral presentation on the revised proposal and registered Parties were able to ask questions. All registered Parties provided closing arguments. A full written transcript of each day of the hearing was produced and is available on the public registry. The WRRB adjourned the hearing on August 6, 2010. The public record was closed and the WRRB's deliberations followed.

6. IS THERE A CONSERVATION CONCERN FOR THE BATHURST CARIBOU HERD?

6.1 Evidence Presented

Based on the WRRB's review of Section 12.6.1 of the Tłı̨chǫ Agreement, the first question which must be answered is whether there is a conservation concern with respect to the Bathurst caribou herd. If the WRRB is not convinced that there is a Bathurst caribou management problem, it does not have the authority to recommend harvest limitations on Tłı̨chǫ citizens.

There was evidence presented during this proceeding that while, caribou herds are cyclical in nature with periods of abundance and scarcity occurring over many decades, there has been a progressive decline in barren-ground caribou numbers across the NWT since 2000. Specifically, the Bathurst herd has declined from nearly 472,000 animals to approximately 32,000 animals in the period between 1985 and 2009 (Figure 3). ENR indicated that this trend is based on several calving ground surveys and on other information available to the department, including adult and calf caribou survival, pregnancy rates, body condition, herd sex ratios and harvest estimates.

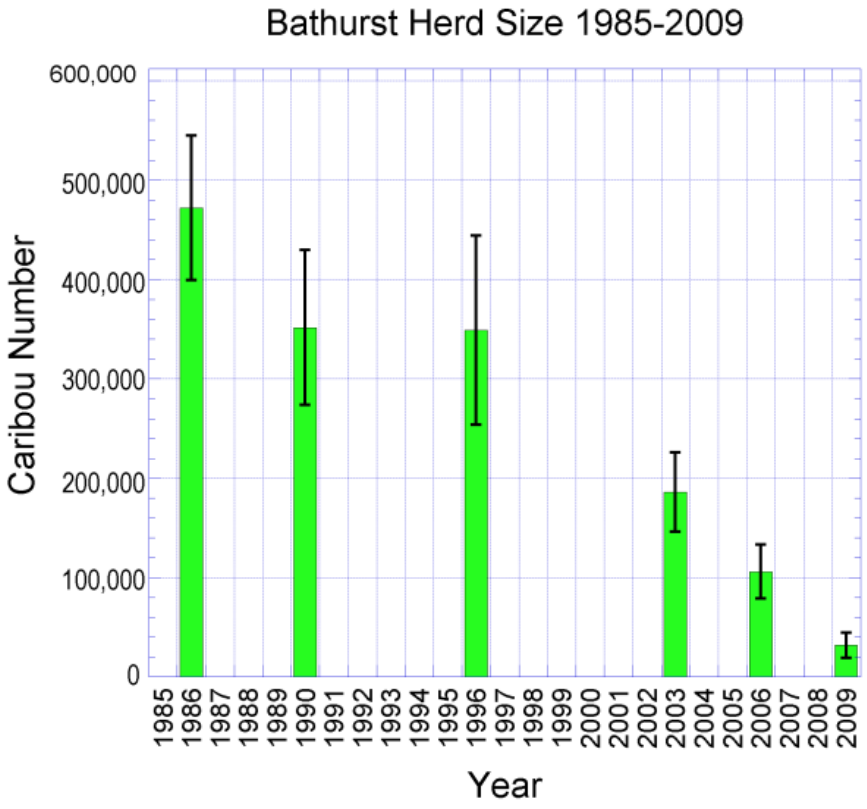


Figure 3: Population Trends, 1985 – 2009[6]

Testimony indicated that ENR uses the most recent scientific techniques to estimate herd size, including satellite and GPS collars and specialized photo planes to conduct the surveys. Evidence showed that cow mortality seemed to have recently increased substantially which likely played an important factor in the decline in the herd. Computer modeling also indicated calf survival has declined drastically in recent years. Body condition and pregnancy appear to be good in recent years suggesting that health is not affecting mortality and that predation and harvest may be the cause of recent declines in cows and calves. The number of bulls in the herd is also low compared to other herds in the NWT suggesting caution.

[6] ENR-GNWT 2010. *Caribou Forever – Our Heritage, Our Responsibility*. PowerPoint Presentation.

A review of the testimony from the hearing as well as the written submissions showed varied opinions on the significance of the decline and potential for recovery. For some, personal observations demonstrated that there were fewer and fewer caribou around. Others acknowledged the severity of decline by supporting harvest restriction as both the appropriate first step towards conservation and necessary to effectively conserve the Bathurst caribou herd into the future. The Expert Witness stated that the decline of the Bathurst, Bluenose-East and Ahiak caribou herds are consistent with trends across the circumpolar north for migratory tundra caribou as 14 out of 19 major herds in Russia, Canada, Alaska and Greenland are in decline.

Other testimony and written evidence supported the opposite view; that the decline in the Bathurst herd is not real and a result of changing definitions of herds. Testimony suggested that there was significant doubt regarding the science and its interpretation. An abundance of healthy caribou are being observed, not diseased or sick caribou that might indicate a severe decline; perhaps indicating the caribou have just moved and/or changed their migration routes. Much of the evidence presented on this side of the argument related to the issue of herd splitting, i.e. that the Bathurst and Ahiak caribou herds should be considered one herd and, if so, there would be no conservation concern.

6.2 "Splitting the Herd"

6.2.1 Tłı̨chǫ Evidence

Caribou that migrate between the barrens and the boreal forest are referred as *hozıɂekwǫ̀,* as opposed to *tǫdzı* – woodland caribou. H*ozıɂekwǫ̀* return to the barrens to give birth to calves. They usually return to the same place each year. Periodically, *hozıɂekwǫ̀* shift migration patterns and may follow other caribou to their calving grounds.

6.2.2 Scientific Evidence

A calving ground is defined based on a continuous distribution of calving caribou. There are often areas of high density, some medium and some low but these areas are adjacent and considered one herd. If there were two distinct groups of calving caribou separated by areas of no calving caribou and non –breeders, these would be considered two separate calving grounds and two herds.

The Ahiak calving ground, on the east side of Bathurst Inlet, overlaps with areas the Bathurst herd used to use for calving. Calving of the Bathurst herd occurred on the east side of Bathurst Inlet from 1965-1984, on both sides of the Inlet in 1986, and on the west side from 1990 onward. As the Bathurst calving ground shifted westward across Bathurst Inlet, it appears the Ahiak calving ground expanded westward to occupy that recently abandoned area (Figure 4). Surveys of the calving grounds of the Bathurst and Ahiak

herds in 1986, 1996, 2002 and 2006-2009 have shown their calving grounds to be discrete in any given year.

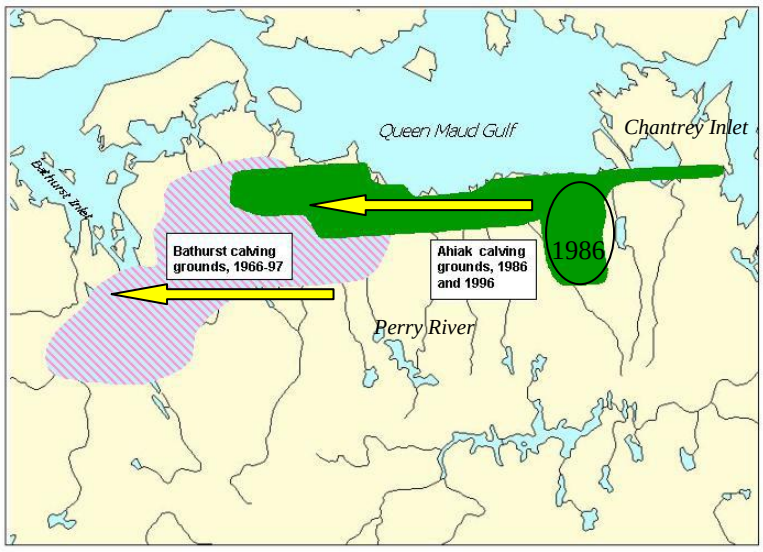


Figure 4: Traditional calving grounds of Bathurst caribou herd (1966 – 1997) and Ahiak calving grounds for 1986 and 1996[7]

6.3 Conclusion

Overall, the WRRB concluded that the balance of evidence submitted points to the conclusion that the Bathurst herd is distinct from the Ahiak herd, it has decreased in number drastically in recent years and demonstrates that there is an issue of conservation concern.

7. OTHER ABORGINALS HARVESTING IN WEK'ÈEZHÌI

The annual range of the Bathurst caribou herd includes communities in the Nunavut settlement area and the Akaitcho Territory, which harvest from it at different times of the year (Figure 5). As well, members of the NWT Métis Nation and North Slave Metis Alliance harvest from the Bathurst herd. The WRRB and the Nunavut Wildlife Management Board are the two co-management tribunals with management authority over the Bathurst caribou herd. As the Akaitcho Territory Government and NWT Metis Nation have not finalized their land claim agreement processes, the GNWT is responsible for caribou management following consultations.

[7] Gunn, A. and A. M. D'hont (2002). Extent of Calving for the Bathurst and Ahiak Caribou Herds June 2002. Manuscript Report No. 149. Yellowknife, Department of Resources, Wildlife and Economic Development, Government of the Northwest Territories**:** 42pp.

The WRRB must recognize the management initiatives undertaken by these Aboriginal Governments. While the WRRB is responsible for managing wildlife in Wek'èezhìı on the basis of information from the Tłı̨chǫ citizens, it must not lose sight of this overall management context. A failure to act when the evidence indicates a wildlife management need could have effects on harvesters outside of Wek'èezhìı.

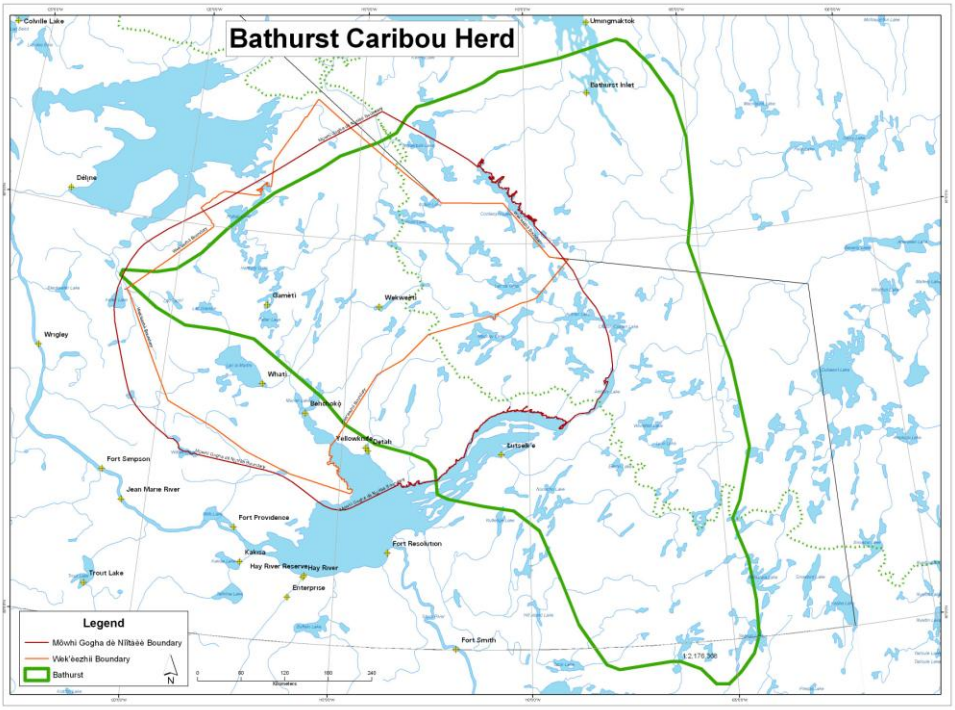


Figure 5: Annual range of the Bathurst barren-ground caribou herd

8. TŁĮCHǪ CULTURAL PERSPECTIVE ON CARIBOU MANAGEMENT

Management actions associated with caribou are a sensitive topic within the NWT with all citizens – including the Tłı̨chǫ – having varying opinions on population levels and rights and responsibilities to harvest. There is, however, consistency in Tłı̨chǫ comments regarding the importance of respect for and knowledge of caribou, and having the will to govern one's own actions in relation to caribou and other wildlife. These cultural perspectives are relevant to the idea of target levels, monitoring caribou, and conservation education.

Personal autonomy for the Tłı̨chǫ is about taking responsibility and is closely tied to self-government. Personal autonomy is also tied to having self respect, understanding situations based on one's experience and knowledge, and having the ability to share one's thoughts with other Tłı̨chǫ, particularly their elders and Chiefs. Personal autonomy is about self restraint, respect for others, finding positive solutions and taking actions as Tłı̨chǫ citizens. In the case of harvesting caribou, family and community members – both

men and women – discuss their needs, which include their meat requirements as well as such things as their need for bones and hides for clothing, drums, caribou rugs, tools, etc. This traditional process is the basis on which Tłı̨chǫ make known their harvest requirements each year, and an important part of the informal structure on which the Chiefs' decisions are made, respected and followed at the family, community and regional levels.

Tłı̨chǫ management actions are tied to the expectation that citizens will take personal responsibility to be respectful and knowledgeable. Both are intertwined components to protecting the environment of which the caribou are an integral part. Traditional practices and laws associated with caribou can be categorized as:

i. Acquiring knowledge of caribou by closely observing them and sharing those observations with elders and other harvesters, including:
    a. The ability to consider long term distribution patterns, population numbers and migration routes when determining trend;
    b. Understanding that one should never harvest lead cows or the bulls that lead younger bull; and
    c. Understanding that both bulls and cows can be harvested, with respect, as both are key to the success of the herd – cows as they have calves and teach the calves; bulls as they protect cows and calves from predators.
ii. Harvesting only what is needed, including having the knowledge to know the type of caribou you need.
iii. Using everything the caribou provides.
iv. Storing what is not used immediately in appropriate ways.
v. Disposing of caribou by-products in appropriate ways.

People should be constantly educated in a respectful manner about these rules.

Harvesting decisions are not the responsibility of a limited number of people – all people are responsible. It is done though discussions with family members, who know their requirements, and with elders, who carry the accumulated knowledge critical to making good decisions. Chiefs sit and listen to all family elders and give direction to younger harvesters. The elders are considered the best educators as they understand the holistic and social aspects to their responsibilities of having a stewardship relationship with the environment. A relationship that is learned and enhanced by travelling trails where people learn to monitor the landscape from a Tłı̨chǫ perspective. The elders also know past trends associated with caribou distribution over time, population levels and their relationship with predators, humans, vegetation communities, and fitness of habitat. This is demonstrated in Figure 6, which shows Tłı̨chǫ trails and the distribution of barren-ground caribou herd from 1925 to 1991.

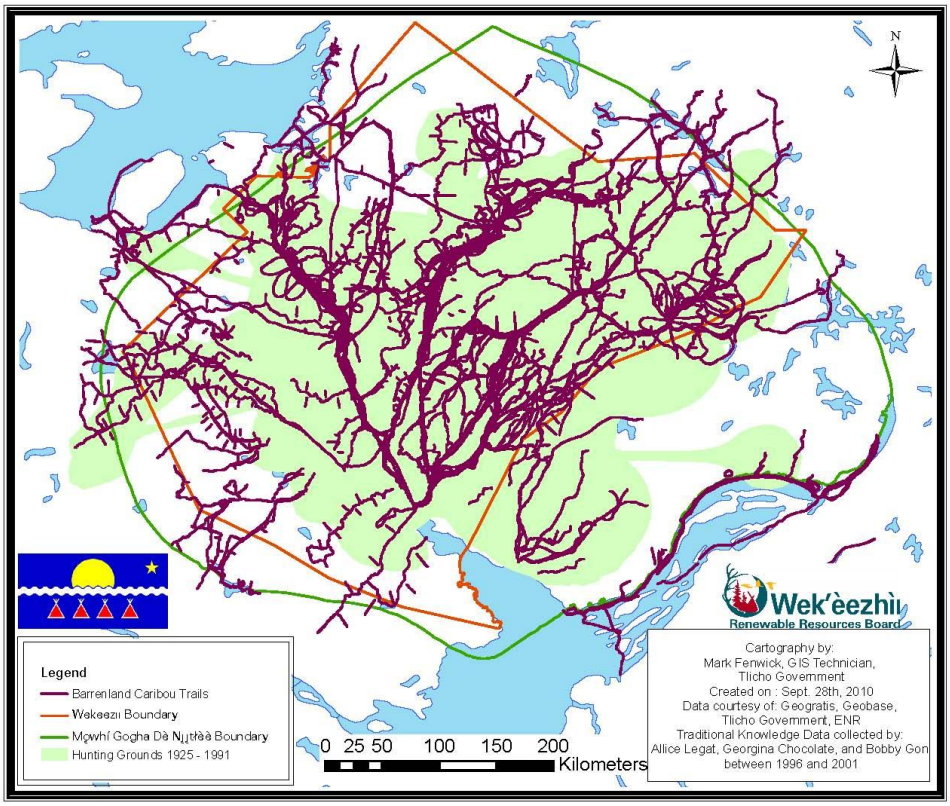


Figure 6: Distribution of Barren-ground Caribou over Time, 1925-1991, & Traditional Harvesting Trails (Legat, Chocolate & Gon, 2001)[8]

Key to respecting caribou is having sufficient experience to know caribou as well as the rules governing human interaction with caribou. Experience comes through 'watching' caribou behaviour, monitoring their behaviour, including the relationship between calves, cows and bulls, foraging habits and their distribution from year to year.

Experience also comes from monitoring their habitat, what vegetation they forage on and listening to oral narratives to understand past behaviour, migration routes within certain areas, trends in population levels especially in relation to predator population levels and richness of habitat. Although Tłı̨chǫ pay attention to short term trends, they know that to understand the cycle of any part of the ecosystem, one must understand the long term trends. Elders play a critical role in bringing forward this historic information.

Based on this long term knowledge of caribou, the elders were able to predict both the current population drop and changes to distribution as early as the mid to late 1990s. Their predictions were based on human decisions to destroy habitat for the development of mines[9] in key caribou habitat areas – both grasses and sedges and the destruction of autumn water crossings; and the human decision to let forest fires burn destroying winter

[8] Legat, Chocolate & Gon 2001. *Caribou Migration and the State of their Habitat*. Yellowknife, NT: West Kitikmeot Slave Study.
[9] ibed

habitat of caribou within Wek'èezhìı. Furthermore, their prediction was based on the amount of meat and hides they saw that people were wasting and the manner in which by-products were being disposed of.

9. WRRB RECOMMENDATIONS ON LIMITATIONS TO BATHURST CARIBOU HARVEST

9.1 Total Allowable Harvest vs. Harvest Targets

A TAH is an absolute number of caribou that can be harvested from a particular herd. If a TAH is put in place, harvest must be tracked accurately so that it does not go over the allowable amount. Tracking is usually done through distribution of tags.

The Tłı̨chǫ Government and ENR have agreed the Bathurst caribou herd is in real and serious decline and decisive management actions are imperative to conserve and recover the herd. However, they have recommended a harvest target rather than a TAH, for the following reasons. First, both Governments proposed that because the herd size is an estimate and not an exact number, it is not beneficial to have an exact number set for harvest. Secondly, the two governments feel implementation will be more easily achieved if the WRRB does not impose a TAH. The Tłı̨chǫ Government's legal counsel explains: *"There are two reasons why the concept of total allowable harvest is not recommended or requested. And one is that the concept of total allowable harvest and the apparent concept that one could set absolute numbers would be a bit out of line with the reality that caribou population numbers cannot be known with the kind of precision ... The other reason ... is more about the nature of the complex set of issues and factors that are actually going to have to play out if this management plan is to be implemented effectively."*[10]

The Governments argue that there will be more community support and ownership of management actions if a target is used rather than a TAH. The Tłı̨chǫ Government's legal counsel asserts that *"... the view of the people who developed this plan is that this plan only has a chance to succeed if those who depend most on the caribou and who harvest it the most are engaged in a real way in making the plan work ...."*[11] He furthers states that *"It's not meant to be a way to avoid effective actions to stabilize the herd. It's meant, in fact, to facilitate and promote effective management."*[12]

In making management decisions, the WRRB is required to *"apply the principles and practices of conservation"* and "*in the absence of complete information, where there are threats of serious or irreparable damage, the lack of complete certainty shall not be a*

[10] Art Pape, Legal Counsel, Tlicho Government. Wek'èezhìı Renewable Resources Board Public Hearing on Joint Proposal on Caribou Management Actions in Wek'èezhìı Transcript Day 6 of 7, August 5, 2010. pp 50-51
[11] ibed: pp 52
[12] ibed: pp 55

reason for postponing reasonable conservation measures".[13] The Board concluded that the balance of evidence submitted demonstrates that there is an issue of conservation concern. Despite a sense of discomfort in recommending a harvest target in lieu of a TAH, the WRRB recognizes the importance of the collaborative process and have been persuaded by the Tłı̨chǫ Government's and ENR's argument. There is a real responsibility for reporting requirements by both Governments to determine if the collaborative management decision for long-term recovery is indeed working.

Recommendation #1: The Board recommends that the Tłı̨chǫ Government and ENR report annually on the overall success of the harvest target approach in meeting the objectives of effective collaborative management and the long-term recovery of the Bathurst caribou herd.

9.2 Commercial Harvest of Bathurst Caribou

The Tłı̨chǫ Government and ENR proposed to eliminate all commercial meat harvest and justified this restriction as the recommended harvest target is well below past usage patterns for the Tłı̨chǫ and other Aboriginal harvesters who have priority for allocation under the Tłı̨chǫ Agreement.

The current size of herd and recent trend in herd size requires limitation of all harvest of Bathurst caribou. Section 12.6.5(a) of the Tłı̨chǫ Agreement recognizes that the WRRB *"shall give priority to non-commercial harvesting over commercial harvesting"*.

Recommendation #2: The Board recommends that all commercial harvesting of Bathurst caribou within Wek'èezhìı be set to zero for the 2010/11, 2011/12 and 2012/13 harvesting seasons.

9.3 Outfitted Harvest of Bathurst Caribou

The Tłı̨chǫ Government and ENR proposed to eliminate all outfitted harvest and justified a restriction on outfitter harvest as the recommended harvest target is well below past usage patterns for the Tłı̨chǫ and other Aboriginal harvesters who have priority for allocation under the Tłı̨chǫ Agreement. During the hearing it was not clear what the views of the ENR and Tłı̨chǫ Governments were with regard to the future of the outfitting industry within Wek'èezhìı.

Much of the Intervenor argument focused on the economic contribution of the outfitting industry to the NWT. Recommendations for a socio-economic assessment of the management actions were made. Testimony spoke of the significant investment

[13] See s.12.1.5 of the Tłı̨chǫ Agreement.

outfitting businesses have made in infrastructure and marketing over the past few decades and how the loss of harvesting opportunities will essentially shut down these businesses. Argument was made to continue sport hunts at some reduced level or financial support from government be provided to diversify outfitting operations for viability into the future. Other Intervenors and participants stated that, consistent with the Tłı̨chǫ Agreement, eliminating outfitter harvest is the first step in limiting harvest for conservation purposes.

The current size of herd and recent trend in herd size requires limitation of all harvest of Bathurst caribou. Section 12.6.5(a) of the Tłı̨chǫ Agreement recognizes that the WRRB *"shall give priority to non-commercial harvesting over commercial harvesting"*. The Board recognizes the hardship experienced by outfitters resulting from reductions in their access to caribou; however, the Board is responsible for ensuring a balance that maintains Tłı̨chǫ and Yellowknives Dene First Nation traditions and ensuring conservation.

Recommendation #3: The Board recommends that all outfitted harvesting of Bathurst caribou within Wek'èezhìı be set to zero for the 2010/11, 2011/12 and 2012/13 harvesting seasons.

Recommendation #4: The Board recommends that ENR and Tłı̨chǫ Government, prior to the next survey of the Bathurst caribou herd, provide the Board and make public their positions with regard to the reinstatement of outfitting within Wek'èezhìı.

9.4 Resident Harvest of Bathurst Caribou

The Tłı̨chǫ Government and ENR proposed to eliminate resident hunter harvest and justified a restriction of resident harvest as the recommended harvest target is well below past usage patterns for the Tłı̨chǫ and other Aboriginal harvesters who have priority for allocation under the Tłı̨chǫ Agreement. During the hearing it was not clear what the views of the ENR and Tłı̨chǫ Governments were with regard to the future of resident harvesting in Wek'èezhìı.

The current size of herd and recent trend in herd size requires limitation of all harvest of Bathurst caribou. Resident harvesters still have other opportunities to hunt, including moose, woodland caribou, bison, sheep, and muskox. Sections 12.5.6 (c) and 12.7.5 of the Tłı̨chǫ Agreement acknowledge that the WRRB *"shall give priority to non-commercial harvesting over commercial harvesting; and, with respect to non-commercial harvesting, residents of the NWT over non-residents of the NWT"*.

Recommendation #5: The Board recommends that all resident harvesting of Bathurst caribou within Wek'èezhìı be set to zero for the 2010/11, 2011/12 and 2012/13 harvesting seasons.

Recommendation #6: The Board recommends that ENR and Tłı̨chǫ Government, prior to the next survey of the Bathurst caribou herd, provide the Board and make public their positions with regard to the reinstatement of resident harvesting within Wek'èezhìı. In developing this position, the Governments will review, assess, and implement, where conservation permits, a limited-entry draw system to facilitate the reinstatement of resident harvesting at the earliest opportunity.

9.5 Aboriginal Harvest of Bathurst Caribou

In the original proposal, the Tłı̨chǫ Government and ENR did not reach an agreement on Aboriginal harvesting. ENR recommended eliminating all harvest of Bathurst caribou cows and having a limited bulls-only harvest, regulated through a tag allocation system. The Tłı̨chǫ Government recommended no harvest restrictions on cow or bull harvest.

In the revised proposal, the Tłı̨chǫ Government and ENR proposed a target harvest of 300 caribou plus or minus 10% for the entire Bathurst caribou herd, both inside and outside of Wek'èezhìı. They suggested that even if all harvest is stopped there is no guarantee that the Bathurst herd will stabilize and begin to grow. The uncertainties around survey information and analysis suggest that a limited harvest of 270 -330 caribou with 60 or fewer cows is an appropriate management option to help stabilize the herd. The current size of herd and recent trend in herd size requires limitation of all harvests. The strongest measures to maximize the potential for the recovery of the herd would be to curtail all harvest, including Aboriginal harvest. The Board recognizes the linkage between Aboriginal peoples, caribou and culture; therefore, the WRRB has sought a balance between maintenance of these important linkages and minimizing impact of the harvest on the Bathurst herd.

Recommendation #7: The Board recommends the establishment of a harvest target of 300 Bathurst caribou per year for the 2010/11, 2011/12 and 2012/13 harvesting seasons.

Recommendation #8: The Board recommends allocating the annual harvest target of Bathurst caribou between Tłı̨chǫ Citizens and members of an Aboriginal people with rights to hunt in Mǫwhì Gogha Dè Nı̨ı̨tłèè as follows:

- Tłı̨chǫ Citizens – 225
- Members of an Aboriginal people with rights to hunt in Mǫwhì Gogha Dè Nı̨ı̨tłèè - 75

The Tłı̨chǫ Government should determine distribution of the allocation within Tłı̨chǫ communities and ENR should determine distribution of the allocation to members of an Aboriginal people with rights to hunt in Mǫwhì Gogha Dè Nı̨ı̨tłèè in consultation with those groups.

Recommendation #9: The Board recommends the harvest of Bathurst caribou should target an 85:15 bull/cow harvest ratio, i.e. the annual harvest of Bathurst caribou cows should be less than 45.

Recommendation #10: The Board recommends that if the Tłı̨chǫ Government and/or ENR have information to suggest that the harvest of Bathurst caribou has or will in the near future exceed the harvest target of 300 by 10% or more, then regulations should be put in place to close all harvesting in areas occupied by the Bathurst herd. If the harvest of Bathurst caribou exceeds the targets of 300 caribou by greater than 10%, the Board reserves the right to reconsider its recommendations and implement a TAH[14].

Recommendation #11: The Board recommends that if the Tłı̨chǫ Government and/or ENR have information to suggest that the harvest of Bathurst caribou has or will or in the near future materially exceed 45 cows, then regulations should be put in place to close all harvesting in areas occupied by the Bathurst herd. If the harvest of Bathurst caribou materially exceeds the targets of 45 cows, the Board reserves the right to reconsider its recommendations and implement a TAH[15].

Recommendation #12: The Board recommends that ENR should, in discussion with the Tłı̨chǫ Government and other Aboriginal groups, identify and make public, prior to the annual fall hunt, areas within which the harvest will be attributed to the Bathurst caribou herd. The Board and public should be advised of any changes to these areas made necessary by movements of the caribou.

Recommendation #13: The Board recommends that ENR should, in discussion with the Tłı̨chǫ Government and other Aboriginal groups, identify and make public, prior to the annual winter hunt, areas within which the harvest will be attributed to the Bathurst caribou herd. The Board and public should be advised of any changes to these areas made necessary by movements of the caribou.

10. WRRB RECOMMENDATIONS ON BLUENOSE-EAST MANAGEMENT

Tłı̨chǫ Government and ENR proposed the following restrictions on harvest of the Bluenose-East caribou herd in the revised proposal:

- Eliminate all commercial meat tags, outfitting tags, and resident tags
- Reduce 2010/2011 harvest of Bluenose-East herd by up to 45% of estimated 2009-2010 harvest within Wek'èezhìı (1920 caribou); and
- Voluntary selection of bulls (80%).

[14] See s.12.5.6 of the Tłı̨chǫ Agreement.
[15] See s.12.1.1 of the Tłı̨chǫ Agreement.

Several Intervenors recommended that harvest not be diverted from Bathurst to adjacent herds. The Sahtu Renewable Resources Board (SRRB) recommended Bluenose-East harvest be set based on a conservative herd estimate that assumes a continued decline. In 2006, SRRB recommended the elimination of commercial meat tags, outfitting and resident harvest of the Bluenose-East. Subsistence harvest was put under a voluntary restriction with an emphasis on bulls.

Following the July 2010 photo survey, preliminary counts indicate the Bluenose-East herd size is around 80 000 caribou[16], with a formal estimate to be released in October 2010. The previous 2006 estimate of herd size was 66 700 (Figure 7).

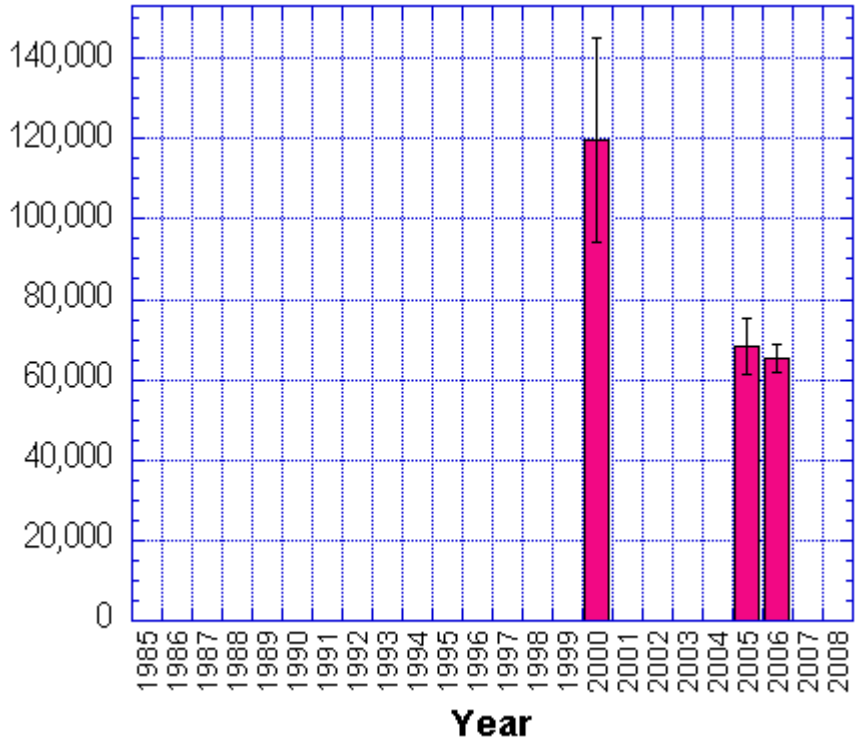


Figure 7: Bluenose-East Caribou Population Trends, 1985 – 2009[17]

10.1 Commercial, Outfitting & Resident Harvest of Bluenose-East Caribou

The current size of herd and recent trend in herd size requires limitation of all harvest of Bluenose-East caribou herd. Resident harvesters still have other opportunities to hunt, including moose, woodland caribou, bison, sheep, and muskox. Sections 12.5.6 (c) and 12.7.5 of the Tłı̨chǫ Agreement acknowledge that the WRRB *"shall give priority to non-commercial harvesting over commercial harvesting; and, with respect to non-commercial harvesting, residents of the NWT over non-residents of the NWT"*.

[16] Pers. Comm. Jan Adamczewski, Ungulate Biologist, ENR-GNWT. September 2010.
[17] ENR-GNWT 2010. *Caribou Forever – Our Heritage, Our Responsibility*, PowerPoint Presentation.

Recommendation #14: The Board recommends that all commercial, outfitted and resident harvesting from the Bluenose-East caribou herd within We'èezhìı be set to zero for the 2010/11, 2011/12 and 2012/13 harvesting seasons.

10.2 Aboriginal Harvest of Bluenose-East Caribou

Although there is evidence to suggest that a continuing decline has not happened with the Bluenose-East caribou herd, the WRRB believes that a cautious approach should be taken when setting a harvest target. The current size of herd and recent trend in herd size still requires limitation of all harvests. The Board recognizes the linkage between Aboriginal peoples, caribou and culture; therefore, the WRRB has sought a balance between maintenance of these important linkages and minimizing impact of the harvest on the Bluenose-East herd.

Recommendation #15: The Board proposes the establishment of a harvest target of 2800 Bluenose-East caribou per year for the 2010/11, 2011/12 and 2012/13 harvesting seasons. The annual harvest target and its allocation should be finalized in discussions between the existing wildlife co-management boards and Aboriginal governments in the Sahtu, Dehcho and Tłı̨chǫ. The Tłı̨chǫ Government should determine distribution of the allocation within Tłı̨chǫ communities.

Recommendation #16: The Board recommends the harvest of Bluenose-East caribou should target an 85:15 bull/cow harvest ratio, i.e. the annual harvest of Bluenose-East caribou cows should be less than 420.

Recommendation #17: The Board recommends that if the Tłı̨chǫ Government and/or ENR have information to suggest that the harvest of Bluenose-East caribou has or will in the near future exceed the target by 10% or more, then regulations should be put in place to close all harvesting in areas occupied by the Bluenose-East herd.

Recommendation #18: The Board recommends that if the Tłı̨chǫ Government and/or ENR have information to suggest that the harvest of Bluenose-East caribou has or will or in the near future materially exceed 420 cows, then regulations should be put in place to close all harvesting in areas occupied by the Bluenose-East herd.

Recommendation #19: The Board recommends that ENR should, in discussion with the Tłı̨chǫ Government and other Aboriginal groups, identify and make public, prior to the annual fall hunt, areas within which the harvest will be attributed to the Bluenose-East caribou herd. The Board and public should be advised of any changes to these areas made necessary by movements of the caribou.

Recommendation #20: The Board recommends that ENR should, in discussion with the Tłı̨chǫ Government and other Aboriginal groups, identify and make public, prior to the annual winter hunt, areas within which the harvest will be attributed to the Bluenose-

East caribou herd. The Board and public should be advised of any changes to these areas made necessary by movements of the caribou.

Recommendation #21: The Board recommends that the Tłı̨chǫ Government and ENR do not provide harvester assistance and/or incentives to access the Bluenose-East herd.

Recommendation #22: The Board recommends that the Tłı̨chǫ Government consider negotiating caribou harvesting overlap agreements with Nunavut and the Sahtu region to make certain that existing relationships endure.

11. WRRB RECOMMENDATIONS ON AHIAK MANAGEMENT

Tłı̨chǫ Government and ENR proposed the following restrictions on harvest of the Ahiak caribou herd in the revised proposal:

- Do not increase access of Ahiak caribou by Tłı̨chǫ communities; and,
- Voluntary selection of bulls (80%).

Population estimates do not exist for the Ahiak herd as they have never been surveyed photographically. Visual counts have been conducted during peak of calving every year since 2006, resulting in an estimate of average counts of cows per survey segment. These counts show a 60% decline from 2006 to 2009. Another visual survey was conducted in June 2010 but a new count for the Ahiak herd is not available at this time. ENR and Government of Nunavut are planning a calving ground photographic survey of the Ahiak herd and systematic survey of the Beverly caribou calving ground in June 2011.

Several Intervenors recommended that harvest not be diverted from Bathurst to adjacent herds. The Ahiak herd is rarely in We'èezhìı but intermingles with the Bathurst herd during the winter primarily around Wekweètì and eastward. It is thought some of the Beverly caribou herd is being "swept" up by the Ahiak and is now showing movement patterns typical of this herd.

11.1 Commercial, Outfitting & Resident Harvest of Ahiak Caribou

The existing information related to the Ahiak caribou herd suggests the herd is in decline.

Recommendation #23: The Board recommends that all commercial, outfitted and resident harvesting from the Ahiak caribou herd within We'èezhìı be set to zero in order to prevent incidental harvest of Bathurst caribou for the 2010/11, 2011/12 and 2012/13 harvesting seasons.

11.2 Aboriginal Harvest of Ahiak Caribou

The existing information related to the Ahiak caribou herd is not sufficient for the Board to recommend a target for Aboriginal harvesting; however, available information does suggest the herd is also in decline.

Recommendation #24: The Board recommends that the Tłı̨chǫ Government and ENR do not provide harvester assistance and/or incentives to access the Ahiak herd.

Recommendation #25: The Board recommends that the Tłı̨chǫ Government consider negotiating caribou harvesting overlap agreements with Nunavut and the Akaitcho region to make certain that existing relationships endure.

Recommendation #26: The Board recommends that ENR should, in discussion with the Tłı̨chǫ Government and other Aboriginal groups, identify and make public, prior to the annual fall hunt, areas within which the harvest will be attributed to the Ahiak caribou herd. The Board and public should be advised of any changes to these areas made necessary by movements of the caribou.

Recommendation #27: The Board recommends that ENR should, in discussion with the Tłı̨chǫ Government and other Aboriginal groups, identify and make public, prior to the annual winter hunt, areas within which the harvest will be attributed to the Ahiak caribou herd. The Board and public should be advised of any changes to these areas made necessary by movements of the caribou.

12. WRRB RECOMMENDATIONS ON CARIBOU MONITORING

The Board received much comment on monitoring during its proceeding. It was varied but some underlying themes were evident. The most important of which is that the monitoring program needs to respect and make use of Tłı̨chǫ knowledge. Evidence presented also suggested the need for monitoring results to be publicly available in a timely manner, that consistent monitoring be done across herds, that environmental conditions be monitored as well as aspects of caribou biology, that methods ensure scientific defensibility of results, and that monitoring include utilizing information from all stakeholders including outfitters, residents and industry. Intervenors and public participants supported requirements for harvest reporting and suggested efforts are put into developing appropriate programs for documenting harvest.

12.1 Scientific Monitoring

Tłı̨chǫ Government and ENR proposed to incorporate the following monitoring actions into an adaptive co-management framework. These actions are:

- Density of Cows on Calving Ground
- Spring Calf Survival
- Health and Condition
- Pregnancy Rate
- Birth Rate
- Adult Sex Ratio and Fall Calf Survival
- Estimate of Herd Size
- Caribou Harvest
- Wolf Den Occupancy
- Wolf Condition and Reproduction
- Wolf Harvest

Any approach to management must have ways of measuring success so that adjustments can be made if results are not achieved or if conditions change such that a different approach is warranted.

12.2 Tłı̨chǫ Knowledge Research and Monitoring Program

The Tłı̨chǫ Knowledge (TK) Research and Monitoring Program was first conceived in 1999 by the Tłı̨chǫ Regional Elders Committee. These elders were concerned that caribou and their habitat were in danger due to the location of the diamond mines and the increased number of forest fires. In 2009, the WRRB and the Tłı̨chǫ Government collaborated to develop a program, with several steps being undertaken. The first was household visits in all the communities, followed by several meetings of the Tłı̨chǫ Elders and Harvesters Regional Working Group. The program was then designed, with the contents being verified by the Regional Working Group.

The *TK Research and Monitoring Program: Special Project, Using Tłı̨chǫ Knowledge to Monitor Barren-ground Caribou* is designed to capture the observations of harvesters and elder's knowledge in a manner that is compatible with the Tłı̨chǫ cultural perspective. Current observations and knowledge of past occurrences provides realistic information to better understand caribou trends over time. This process also demonstrates respect for the holistic approach Aboriginal people take in monitoring and managing themselves and the environment.

The establishment of a fully developed, effective TK Research and Monitoring Program is a necessary but ambitious undertaking. It will require substantial resources and careful planning. It will also require investment in training and in information technology. Using Tłı̨chǫ Knowledge to monitor barren-ground caribou and document harvest is a constructive first step towards the development of the overall program.

The WRRB is recommending caribou harvesting targets rather than a TAH. The success of this approach is dependent on having the information necessary for sustainable management. It is, therefore, imperative that the Tłı̨chǫ undertake their own monitoring by documenting their observations and harvesting information to ensure they contribute to the process. If the Chiefs use the TK Research and Monitoring Program to oversee the documentation of caribou harvesting among their citizens during this time of low caribou populations, it will be easier for the Lands Protection Department, Tłı̨chǫ Government to:

- Maintain the target within a reasonable range;
- Allocate caribou resources to those in need;
- Provide reliable up-to-date information; and
- Evaluate the success of the target approach.

Furthermore, when caribou population numbers are higher, and allocations of this resource are more widespread, it will be necessary to determine basic needs levels of the Tłı̨chǫ citizens.

A full description of the *TK Research and Monitoring Program: Special Project, Using Tłı̨chǫ Knowledge to Monitor Barren-ground Caribou* is found in Appendix F.

Recommendation #28: The Board recommends the Tłı̨chǫ Government implement the *Special Project, Using Tłı̨chǫ Knowledge to Monitor Barren Ground Caribou* of the overall TK Research and Monitoring Program.

12.3 Monitoring Recommendations

Monitoring is important for two reasons related to the process of management: 1) to assess the status and trend of caribou herds; and 2) to assess whether management objectives are being met. The Tłı̨chǫ Government and ENR presented possible linkages between monitoring actions and management in the proposal. The Board's approach and responsibilities are based on co-management, and as such, support the Tłı̨chǫ philosophy of *"Strong Like Two People"*, allowing a more realistic way of linking monitoring to adaptive co-management.

Recommendation #29: The Board recommends that ENR and the Tłı̨chǫ Government implement the *spring calf survival* monitoring action as identified below:

- Scientific – Spring composition surveys to determine calf survival should continue. In addition, ENR should explore methods to improve estimation of cow mortality that do not involve large numbers of collars to better inform the interpretation of cow/calf ratios
- TK – In listening to the oral narratives of Tłı̨chǫ harvesters, the TK researchers should document the harvesters' observations of the number of calves, cows and bulls along migration routes where caribou fences were once located.

Recommendation #30: The Board recommends that ENR and the Tłı̨chǫ Government implement the *health and condition* monitoring action as identified below:

- Scientific – Cows should NOT be harvested specifically for health and condition monitoring. If appropriate per collection methodology, suitable samples from harvested caribou should be collected by Aboriginal harvesters in the community.
- TK – In listening to the oral narratives of Tłı̨chǫ harvesters, the TK researchers should document the harvesters' visual appraisals of fitness on hoof and sensory appraisals during skinning, butchering, preparing of meat and hides.

Recommendation #31: The Board recommends that ENR and the Tłı̨chǫ Government implement the *birth rate* monitoring action as identified below:

- Scientific – Birth rate estimates determined from composition surveys on the calving ground should continue.
- TK – In listening to the oral narratives of Tłı̨chǫ harvesters, the TK researchers should document the harvesters' observations of calves, cows and bulls on the barrens in the summer (post-birthing rate).

Recommendation #32: The Board recommends that ENR and the Tłı̨chǫ Government implement the *adult sex ratio and fall calf survival* monitoring action as identified below:

- Scientific – Fall composition surveys to determine adult sex ratio and calf survival should continue. As above, this should be augmented with better estimates of cow mortality to better inform the interpretation of bull/cow ratios.
- TK – In listening to Tłı̨chǫ harvesters, the TK researchers should document the harvesters' observations of numbers and behaviour of bulls, cows and calves.

Recommendation #33: The Board recommends that ENR and the Tłı̨chǫ Government implement the *estimate of herd size* monitoring action as identified below:

- Scientific – A calving ground photo-survey should be conducted in June 2012.
- TK – In listening to Tłı̨chǫ harvesters, the TK researchers should document the harvesters' observations and their assessment of caribou abundance at key locations.

Recommendation #34: The Board recommends that ENR and the Tłı̨chǫ Government implement the *wolf abundance (den occupancy)* monitoring action as identified below:

- Scientific – To enhance the ability of managers to assess management actions in the future, appropriate indices of wolf abundance, wolf predation rates and population responses to changing caribou abundance should be developed and implemented.

- TK – In listening to the Tłı̨chǫ harvesters, the TK researchers should document the harvesters' observations and their assessment of wolf abundance associated with caribou.

Recommendation #35: The Board recommends that ENR and the Tłı̨chǫ Government implement the *wolf condition and reproduction* monitoring action as identified below:

- Scientific – A carcass collection program and assessment of carcasses collected for physical condition and reproductive status should continue.
- TK – In listening to the Tłı̨chǫ harvesters, the TK researchers should document the harvesters' observations of the condition of wolves associated with caribou.

Recommendation #36: The Board recommends that ENR and the Tłı̨chǫ Government implement the *wolf harvest* monitoring action as identified below:

- Scientific – Harvest data from a combination of carcass collection, fur sales, resident harvest questionnaires, and mandatory reporting of non-resident harvests should be collected.
- TK – Tłı̨chǫ researchers will manage the collection of Tłı̨chǫ harvest data.

Recommendation #37: The Board recommends that ENR and the Tłı̨chǫ Government implement the *state of habitat* monitoring action as identified below:

- Scientific –Landscape changes, including fires and industrial exploration and development, should be monitored to assess potential impacts to caribou habitat.
- TK – In listening to the Tłı̨chǫ harvesters, the TK researchers should document the harvesters' detailed observations of caribou habitat.

Recommendation #38: The Board recommends that ENR and the Tłı̨chǫ Government implement the *pregnancy rate* monitoring action as identified below:

- Scientific – Cows should NOT be harvested specifically for determining pregnancy.
- TK – In listening to the oral narratives of Tłı̨chǫ harvesters, the TK researchers should document the harvesters' visual appraisals of pregnancy and pregnancy of any cows harvested.

Recommendation #39: The Board recommends that ENR implement the *density of cows on calving ground* monitoring action as identified below:

- Scientific – Annual calving ground reconnaissance surveys should continue.
- TK – As Tłı̨chǫ harvesters have not gone to the calving grounds in the past, there is no suggested action.

Recommendation #40: The Board recommends Tłı̨chǫ Government implement the *caribou harvest* monitoring action as identified below:

- TK –Tłı̨chǫ harvesters should report their caribou harvest to the TK researchers who will manage the harvest data
- Scientific – Harvest data should not be collected through a scientific process as Tłı̨chǫ should collect and manage their own harvest data.

Recommendation #41: The Board recommends that ENR and Tłı̨chǫ Government reporting on monitoring results to the WRRB and the general public a minimum of three times per year in April, September and December.

13. WRRB RECOMMENDATIONS ON RULES-BASED APPROACH

The revised proposal submitted by Tłı̨chǫ Government and ENR acknowledges that the management of hunting requires more than establishing numerical targets or thresholds. It also requires development of rules that will strengthen Tłı̨chǫ traditions, define acceptable hunting methods and behaviour of hunters and access to wildlife over time and space. This "rules-based" approach to implementation involves the following aspects:

- Organize a traditional cultural fall hunt done by boat rather than aircraft
- Develop hunting related educational programs for Tłı̨chǫ
- Support fish camps and encourage harvest of alternate species such as bison, moose and small game
- Develop education programs within Tłı̨chǫ communities on "relearning knowledge and respect for caribou"
- Designate monitors within each community as point of contact for hunters
- Distribute meat to elders and other community members
- Establish Community Caribou Committees to administer and monitor hunting & use tags to allocate, administer, and monitor hunting effort by community

Several Intervenors and hearing participants supported more effort be put into hunter education including the development of tools such as DVDs on traditional and ethical hunting practices for use by public and Aboriginal hunters.

For the Board to be consistent with its approach to use the parallel process, it advocates the use of Tłı̨chǫ rules as well as existing management regulations. The Tłı̨chǫ rules are not limited to but could include:

- Take only what caribou is needed;
- Take only what caribou can be carried;
- If there is extra, share with others;
- Use all, of what, the caribou has to offer;
- Treat caribou hair, bones and blood appropriately; and
- Know as much as you can about caribou.

Given that a management rule among the Tłı̨chǫ is to harvest only what is needed, and that it is the responsibility of all citizens to adhere to that, with the leaders (Chiefs) given direction, there may be problems with Community Caribou Committees unless they adhere to the traditional structure rather than to a Western committee structure.

To respect the personal autonomy of all Tłı̨chǫ citizens and to respect the role of elders and other family members (as teachers and as harvesters) and community leaders, it is important to remember that harvesting decisions are done through discussions with family members who know their requirements and with elders who carry the accumulated knowledge critical to making good decisions. The role of the Chiefs is to sit with and listen to all family elders and give direction to younger harvesters.

Recommendation #42: The Board recommends that the Tłı̨chǫ Government develop and implement a TK conservation education program to support the relationship and respect Tłı̨chǫ have for caribou. The program should be taught by elders and include:

- Tłı̨chǫ rules and their holistic approach to monitoring and managing their relationship with caribou;
- The idea of learning by travelling traditional trails so the 'land' can be observed and monitored; and
- Information on alternate resources to be harvested when caribou is scarce.

Recommendation #43: The Board recommends that ENR develop and implement a scientific conservation education program to foster an increased appreciation of the resource. The program should be aimed at better harvesting and handling practices, increased knowledge of caribou and their role in the ecosystem, and an enhanced understanding of scientific management practices.

14. WRRB RECOMMENDATIONS ON ADAPTIVE CO-MANAGEMENT FRAMEWORK

ENR and Tłı̨chǫ Government presented an approach to monitoring and management that is rooted in the community, regularly reviews and assesses monitoring information and adapts management action as necessary on an ongoing basis. This adaptive co-management cycle involves the establishment of Community Caribou Committees, a Tłı̨chǫ ʔekwǫ̀ Working Group that reports to Tłı̨chǫ Government executive and a Tłı̨chǫ – ENR Technical Working Group that will make management recommendations for review by the Board.

Evidence presented by some Intervenors advocated the need for annual review of monitoring information and requirements for determining how well management actions are working. The Expert Witness emphasized the importance of measuring effectiveness of management actions through monitoring and establishing criteria for measuring success or failure.

The Board recognizes collaborative management approaches and the importance of Tłı̨chǫ and scientific ways of monitoring. The regular review of monitoring information is central to appropriate and timely management actions being developed.

Figure 8 presents an approach to information flow for an adaptive co-management framework that respects both Tłı̨chǫ and scientific ways of monitoring and managing caribou. The information flow takes into account the recommended TK Research and Monitoring program in lieu of the Community Caribou Committees. Tłı̨chǫ observations recorded through the TK Research & Monitoring Program are brought to the community for verification before being shared with the Tłı̨chǫ Government, GNWT and the WRRB. Scientific monitoring is conducted and shared with communities prior to it being distributed to Tłı̨chǫ Government, GNWT and WRRB. Tłı̨chǫ Government, GNWT and WRRB use the two knowledge systems to make good, balanced decisions.

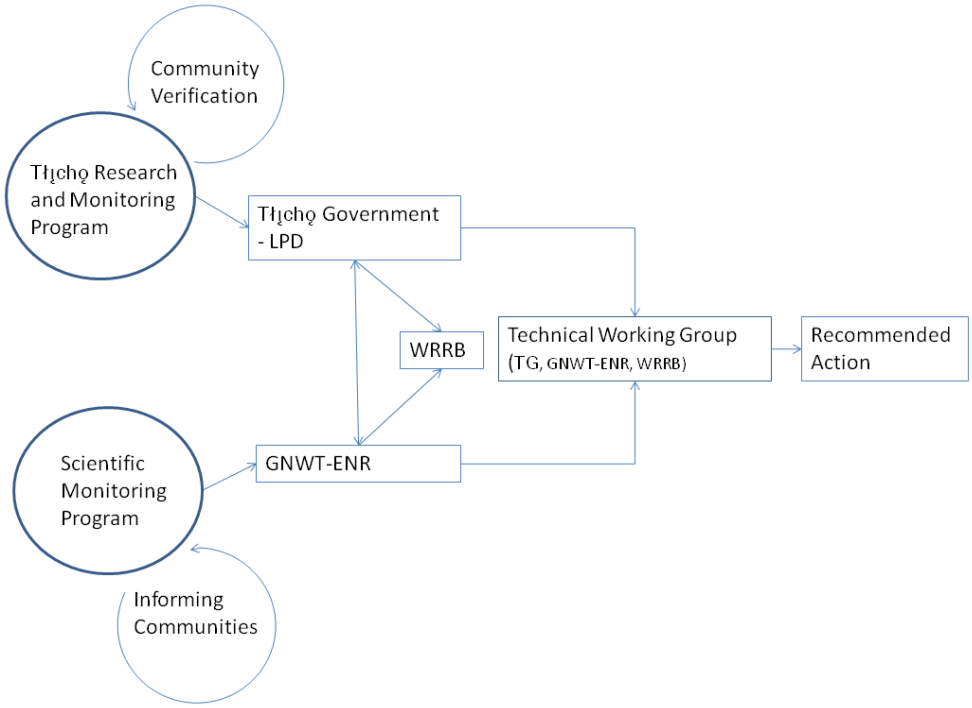


Figure 8: Monitoring Information Flow

Recommendation #44: The Board recommends that ENR and Tłı̨chǫ Government implement a process of information flow, review and assessment as described above.

Recommendation #45: The Board recommends that the WRRB staff be a full participant in the Tłı̨chǫ – ENR Technical Working group without prejudice to the Board.

Recommendation #46: The Board recommends that criteria be developed by ENR and Tłı̨chǫ Government for assessing success or failure that would indicate when management actions are to be revised, including reinstatement of harvest for residents, outfitters and commercial tags. These criteria should be approved and implemented by the Technical Working Group.

15. WRRB RECOMMENDATIONS ON DEVELOPMENT, HABITAT AND WILDLIFE MANAGEMENT

The revised proposal discusses the importance of landscape management strategies that include habitat conservation, limits to development and protection of calving grounds. ENR and Tłı̨chǫ Government propose that these longer term initiatives be considered by the Tłı̨chǫ – ENR Technical Working Group.

Evidence on the record demonstrates that landscape change may be affecting the Bathurst caribou herd. Studies at the Ekati and Diavik mine sites, show caribou use areas within 14 km of the mines less frequently than areas farther away. An environmental trend analysis has shown the amount of boreal forest stands preferred by caribou (i.e. older than 50 years) on the Bathurst winter range has decreased by approximately 30%, from 1990 - 2000. Trends on the Bathurst range are not commonly tracked nor reported by any agency in the NWT.

Intervenor submissions presented the need to monitor and manage cumulative effects across the range, protect the calving grounds of the Bathurst herd and to provide protection for caribou as they pass through areas of development during calving and post-calving.

Recommendation #47: The Board recommends ENR continue discussions with the Government of Nunavut for identifying opportunities for calving ground protection.

Recommendation #48: The Board recommends ENR and INAC collaboratively develop best practices for mitigating effects on caribou during calving and post-calving, including the consideration of implementing mobile caribou protection measures.

Recommendation #49: The Board recommends Tłı̨chǫ Government work towards development and implementation of a land use plan for Wek'èezhìi, including the consideration of thresholds for industrial land use.

Recommendation #50: The Board recommends that ENR and INAC monitor landscape changes, including fires and industrial exploration and development, to assess potential impacts to caribou habitat.

Recommendation #51: The Board recommends that ENR and Tłı̨chǫ Government assess the need for forest fire control in areas of important caribou habitat.

16. WRRB RECOMMENDATIONS ON WOLF MANAGEMENT

Tłı̨chǫ Government and ENR proposed to increase wolf harvest to allow for increased caribou survival. The target is to increase wolf harvest in the Bathurst range twofold from about 40 to 80-100 per year. Implementation of this will be through:

- Providing training to hunters in Gamètì and Wekweètì to set snares and handle wolf pelts;
- Increasing value of pelt under Genuine Mackenzie Valley Fur Program to $400/pelt;
- Increasing price per carcass to $200;
- Supporting hunters to get to where wintering caribou and wolves are;
- Removing problem wolves around communities by hiring trappers; and,
- Implementing focused removals on the winter range and at the den site if efforts have not met the annual wolf harvest targets and is the Bathurst herd continues to decline.

Several Intervenors supported increased harvest of wolves, the development of improved indices for monitoring wolf abundance and additional research examining wolf and grizzly bear predation on caribou. Tłı̨chǫ and Inuit public recommended monitoring of wolves, grizzly bears and wolverine and the development of management plans.

Recommendation #52: The Board recommends the harvest of wolves should be increased through the suggested incentives, except for assisting harvesters to access wolves on wintering grounds.

Recommendation #53: The Board recommends that focused wolf control not be implemented. If Tłı̨chǫ Government and ENR believe that focused wolf control is required, a management proposal shall be provided to the WRRB for its consideration.

17. WRRB RECOMMENDATIONS ON BISON MANAGEMENT

Tłı̨chǫ Government and ENR recommended continuation of the new zones and quotas created under the Interim Emergency Measures imposed January 2010 as follows:

ZONE	QUOTA	SEASON	WHO
R/WB/01 - west of Behchokǫ̀ to Birch Creek	45 tags any sex (25 Tłı̨chǫ Government, 10 to YKDFN, 10 to Metis)	January 1 to March 15	GHL, resident or outfitters
R/WB/02 - east of Edzo	no limit but must report kill within 72 hours	January 1 to April 15	GHL only

Tłı̨chǫ Government and ENR also proposed to change both seasons to be consistent with the subsistence harvest in Dehcho for this herd, beginning September 1 and closing April 15.

The rationale for the proposed management actions are multiple and include:

- Provide alternative country food sources to barren ground caribou;
- To reduce wood bison conflicts in communities and along highway;
- Provide opportunities to outfit for wood bison in the North Slave region;
- Provide opportunity for Tłı̨chǫ to learn about hunting and eating wood bison; and,
- Eliminate wood bison east of Edzo which is not prime wood bison habitat.

There were no Intervenor or Tłı̨chǫ Public recommendations related to bison.

17.1 Status of the Mackenzie Wood Bison Herd

Wood Bison are classified as *Threatened* under the *Species at Risk Act*. The Mackenzie bison herd is one of the largest disease-free herds of free roaming wood bison in Canada. The Mackenzie wood bison herd began with an introduction of 18 animals in 1963. From the initial introduction, the population increased to an estimated size of 2026 bison by 1993. The most recent survey of the Mackenzie wood bison herd estimates the population to be just below 1600 (Figure 9).

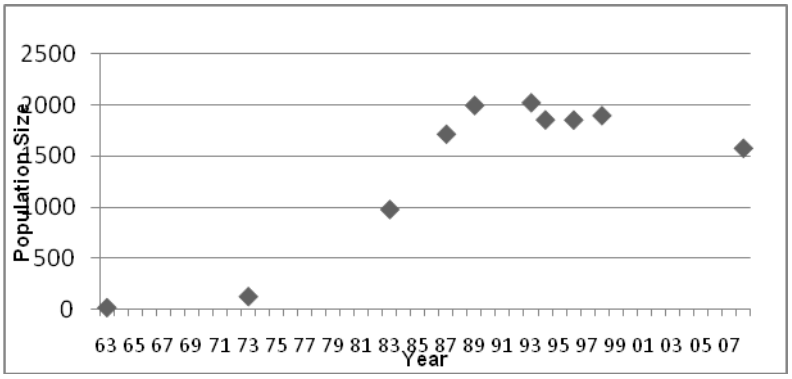


Figure 9: Trend in population estimate of the Mackenzie Bison herd 1963-2008

ENR circulated a Draft Wood Bison Management Strategy for the NWT for comment in January 2009. The WRRB commented on the Draft Strategy emphasising the need to develop a management plan and that implementation of any immediate actions should come to the Board for review.

The Board recognizes that the proposal to increase bison harvesting opportunities is an attempt on behalf of the Governments to accommodate the impact of the proposed caribou management measures on Aboriginal harvesting rights. Based on information available in the Draft Wood Bison Management Strategy, the Board does not believe that

implementation of these proposals will result in irreparable harm to the wood bison population over the next two years.

Recommendation #54: The Board recommends that ENR and Tłı̨chǫ Government submit a joint management proposal for wood bison in Wek'èezhìı by the fall of 2011 to substantiate the establishment of zones and quotas made through the Interim Emergency Measure.

18. WRRB RECOMMENDATIONS ON LONG-TERM CARIBOU MANAGEMENT

The Tłı̨chǫ Government and ENR acknowledged that longer term management planning needs to take place for all three herds in Wek'èezhìı. A Bathurst Caribou Management Plan was developed in the early 2000's and finalized in 2004. It was never formally ratified by participating governments and other parties. There is a plan currently under development for the Bluenose-East caribou herd guided by the Advisory Committee for Cooperation on Wildlife Management, which is comprised of all chairs and executive directors of the wildlife co-management boards in NWT and Nunavut. There is no process underway for the Ahiak.

It is a requirement under Sections 12.11.1 and 12.11.2 of the Tłı̨chǫ Agreement that *"management plans, respecting wildlife that migrates between Wek'èezhìı and another area, be prepared jointly with any body with authority over that wildlife in that other area within three years after the effective date"* and *"Within three years of the effective date, the Parties shall prepare a comprehensive proposal for the management of the Bathurst caribou herd."*

Recommendation #55: The Board recommends that ENR and Tłı̨chǫ Government work collaboratively to meet the obligations of Section 12.11 of the Tłı̨chǫ Agreement with support from WRRB staff as needed and a meeting be convened by January 2011.

19. IMPLEMENTATION

The Tłı̨chǫ Government and ENR have initiated discussion on developing a coordinated implementation plan that is based on meaningful participation of Tłı̨chǫ communities and would align the establishment of any new Territorial regulations and Tłı̨chǫ laws. The two governments have been discussing and developing implementation protocols pursuant to their joint recommendations for management actions and monitoring, but more work is required to develop specific implementation options for the proposed plan. The revised proposal did not comment on enforcement and compliance. Under certain circumstances, enforcement is a necessary part of any management strategy.

Recommendation #56: The Board recommends that the Tłı̨chǫ Government increase their capacity to ensure full participation in monitoring and management of caribou.

Recommendation #57: The Board recommends that ENR, Tłı̨chǫ Government and INAC implement its recommendations no later than January 1, 2011. ENR's Emergency Interim Measures, put into effect on January 1, 2010, should remain in place until then.

Recommendation #58: The Board recommends that Tłı̨chǫ Government and ENR conduct consultations regarding the Recommendations Report prior to January 1, 2011.

Recommendation #59: The Board recommends that ENR and Tłı̨chǫ Government develop a detailed implementation and consultation plan incorporating the WRRB's recommendations as soon as possible.

Recommendation #60: The Board recommends that ENR develop and implement an effective and continuing enforcement and compliance program.

20. CONCLUDING COMMENTS

All peoples who harvest in Wek'eezhii must do their part to ensure the recovery of the barren-ground caribou herds. Unless management and monitoring actions are implemented to protect the caribou, future recovery of the herd may not be possible.

The WRRB believes that limiting the harvest of the Bathurst, Bluenose-East and Ahiak caribou can have a great impact on recovery. The decisions have been structured to have the least impact on caribou users and the greatest benefit to caribou that we can provide at this time.

APPENDIX A **Joint Proposal on Caribou Management Actions in Wek'èezhìi, November 5, 2009**

Proposal to Wekʼèezhìı Renewable Resource Board

Joint Proposal on Caribou Management Actions in Wekʼèezhìı

Submitted by:
Tłı̨chǫ Government
Environment and Natural Resources, GNWT

Issue

The Bathurst caribou herd has declined rapidly in the last 3 years. As a result, the Tłı̨chǫ Government and the Government of the Northwest Territories (GNWT) Department of Environment and Natural Resources (ENR) are submitting this joint proposal on caribou management actions to the Wekʼèezhìı Renewable Resources Board. Actions are proposed for the Bathurst herd and its western and eastern neighbours, the Bluenose East and Ahiak herds.

Background

The status of the barren-ground caribou herds within Wek'èezhìi (Tåîchô Land Claim area) is briefly reviewed below.

Bathurst Herd

In June of 2009, ENR staff conducted a Bathurst calving ground photo census and final results indicate that the Bathurst herd is still declining in numbers and that recovery options need to be considered immediately. The final number of breeding females on the calving ground is now 16,600 ± 4,450, down from 55,600 ± 8,800 in 2006. Overall herd size is estimated at 31,900 ± 10,900 in 2009, compared to 128,047 ± 27,343 in 2006.

Bluenose East Herd

A photo census was attempted in July of 2009 on the post-calving range of the Bluenose East caribou in order to obtain a new population estimate. The survey was not successful due to unfavorable weather and will have to be conducted again in July of 2010.

The herd was properly photo censused in 2005 and 2006 and results revealed that this herd had declined substantially since 2000. The 2000 estimate was 119,600, compared to 66,700 in 2006.

Despite the lack of success in conducting the photo census in 2009, biologists reported seeing fewer animals on the post calving ground than observed in 2006. This is a concern and suggests caution in evaluating management options.

Ahiak Herd.

This herd was never properly photo censused although the population was estimated at approximately 200,000 animals in 1996 based on an extrapolation of a systematic reconnaissance survey.

From 2006 to 2009, ENR staff flew more reconnaissance surveys (transect lines spaced at 10 km intervals) on the calving range of the Ahiak herd. Preliminary trend analysis conducted by a statistician (John Boulanger) suggests that this herd is also declining. Numbers of cows on the Ahiak calving ground in 2009 were reduced 60% from cow numbers in 2006,

A calving ground photo census is planned for June of 2010 as a shared effort between GNWT and the Nunavut government.

On July 31, 2009, the Wekʼèezhìı Renewable Resource Board (WRRB) sent a letter to the Tłı̨chǫ Government and ENR encouraging both governments to engage in a new round of discussions to generate a comprehensive management proposal for barren-ground caribou.

Following this request, the Tłı̨chǫ Government formed a caribou working group to meet with ENR staff to develop a document on recovery options for the Bathurst herd and neighboring herds. One of the requirements of the Tłı̨chǫ process was to hold a regional workshop in Gamètì to get input from elders on the draft joint proposal prior to the Tłı̨chǫ assembly to make a final decision.

Monitoring and recovery options suggested in this document reflect the new status of the Bathurst and other adjacent herds and are the results of consultation between the two governments.

PROPOSAL

The overall approach in the Tłı̨chǫ Government and ENR's joint proposal on the Bathurst caribou herd is to develop a recovery plan for the next three years, followed by a new Bathurst population survey and a revised management plan.

The goals are:

(1) to develop actions that will allow for the most rapid recovery of the herd,
(2) to identify monitoring of the herd's welfare and the effectiveness of recovery actions.

The Tłı̨chǫ Government and ENR propose management and monitoring actions for the Bluenose East, Bathurst and Ahiak herds, to assess trend and other biological factors, and to help the Bathurst herd to recover (Appendices A and B).

The proposed actions to monitor trends of the three herds are: estimate of number of breeding females; calf survival in the spring and the fall; sex ratio in the fall; spring and fall condition; pregnancy rates; and birth rates; mandatory harvest reporting; monitoring of insect abundance; and wolf condition and productivity; and finally, how winter range status affects movement, distribution and condition of caribou. These monitoring actions are identified in the Bathurst Caribou Management Plan when herd numbers are low.

The proposal recommends that initiatives to help caribou numbers to recover should also include education and compliance, hunter education and best hunting practices, and proper monitoring and assessment of cumulative effects of natural and non-natural stressors such as mining and exploration and road access. Protection for all calving grounds will have to be maintained to ensure that no exploration or mining activities take place during the calving and post-calving periods. The Inuvik caribou summit in 2007 culminated in a resolution passed by all participants to protect all caribou calving grounds in NWT and Nunavut. Consultation and collaboration with the Nunavut Government and co-management groups will be needed to ensure that proper protection is maintained for each calving ground, as the Bluenose East, Bathurst and Ahiak calving grounds are all in Nunavut.

Low numbers of breeding females in the Bathurst herd warrant immediate management action (no more hunting of Bathurst caribou females) starting as soon as possible until 2012 when the next calving ground census is scheduled to take place. Management actions will then be reassessed following the new population estimate.

To minimize hardship on Aboriginal hunters and assist the Bathurst herd to recover, ENR's preferred option is to allow a bull harvest only on adjacent herds and a limited bull harvest on the Bathurst herd regulated by a tag allocation. If results of future fall composition surveys of the Bathurst herd or adjacent herds do not reveal a healthy sex ratio in the herds, then further restrictions may be put in place.

A careful and limited harvest of caribou females may also be considered on adjacent herds (Bluenose East and Ahiak) until a photo census and new population estimates are obtained for those 2 herds which are scheduled for the summer of 2010.

A limited low number of breeding females may be allowed to be harvested from the Bathurst herd in the winter months for scientific purposes (health and condition and assessment of pregnancy rate). Meat will be distributed to Aboriginal elders. The numbers to be collected are to be discussed further with Tłı̨chǫ Aboriginal hunters, members of the WRRB and ENR biologists.

No harvest of females is to take place when caribou of different herds are mixed together in the winter time to avoid accidental hunt of Bathurst cows. When this situation occurs, it is recommended that males only be hunted (ENR's position). Consultation between ITI and ENR will take place to explore avenues to provide financial support to hunters to access new hunting areas.

Given the uncertain status of the Bluenose East herd, and in order to be consistent with management actions implemented by other Boards for the Cape Bathurst and Bluenose West herds, it is recommended that no harvest for non-resident and resident hunters be allowed on that herd.

Consultations and collaboration between GNWT and Nunavut Government will continue to take place to ensure that complete protection of all the calving grounds is maintained and exploration and mining activities are restricted at the time of calving and post-calving.

Preliminary results suggest that cumulative effects of non-natural stressors on caribou such as mining activities in the range of the Bathurst herd (beyond calving grounds) have not had a significant negative influence on overall mortality of caribou. This type of monitoring, however, will continue on a permanent basis to ensure that no unexpected effect goes undetected.

The Diamond Mines' Wildlife and Environment Monitoring programs (WEMP) will be redesigned to adjust for results and findings acquired through several years of data collection and new proposed monitoring will be presented to the Tłı̨chǫ government and communities for their inputs.

Appendix A: Proposed Management Actions to help the Bathurst, Bluenose East and Ahiak herds to recover.

No.	Issue	Actions to help herds recover/*Lead Government*	Rationale
1.	Reduce harvest Pressure	Eliminate all commercial meat tags held by Tłı̨chǫ and all other aboriginal communities. Status of allowing meat tags to be reconsidered after the 2012 calving ground photo census. /*Joint by both governments*	Tłı̨chǫ communities have not used commercial meat tags for many years and there has been no interest expressed by Tłı̨chǫ citizens to use caribou for this purpose. No public interest implications in Wek'èezhìı. This will require regulation changes.
2.	Reduce harvest Pressure	Eliminate all tags for outfitting for the hunting season starting in the summer of 2010 until 2012 included. Status of outfitting to be reconsidered after the 2012 calving ground photo census. /*Joint by both governments*	Conservation measure and under Tłı̨chǫ Agreement, this type of harvest must be addressed first. Regulation changes required.
3.	Reduce harvest Pressure	Eliminate all resident hunter harvest. Allocation of tags to resident hunters to be reconsidered after the results of the 2012 calving ground photo census. /*Joint by both governments*	Conservation measure and under Tłı̨chǫ Agreement, this type of harvest must be addressed first. Regulation changes required.
4.	Reduce harvest Pressure (females)	**ENR RECOMMENDATION** Eliminate all harvest of Bathurst caribou (Tłı̨chǫ herd) females Limited female harvest may be possible for experienced hunters on the Bluenose East (Sahtu herd) and the Ahiak (Inuit herd) herds and assisted through a joint partnership with ENR/ITI. Numbers harvested to be discussed further and	Conservation measure and under Tłı̨chǫ Agreement. Regulation changes required. Subject to approval by SRRB, BQCMB and Nunavut for recovery actions outside Wek'eezhii.

No.	Issue	Actions to help herds recover/*Lead Government*	Rationale
		biologists would be part of the hunt to assess health and condition of caribou harvested. No harvest of cows would be allowed when herds are mixed together on the winter range. Instead a careful harvest of males is suggested. Location of caribou of various herds (Sahtu, Tłı̨chǫ, Inuit) to be monitored by tracking satellite collared females and a no hunting zone could be established for the area where Bathurst collared animals are situated every season. **TŁı̨CHǪ GOVERNMENT** No restriction on female harvest.	
5.	Reduce harvest Pressure (males)	**ENR RECOMMENDATION** A) Bull harvest only on all herds for Aboriginal harvesters (caribou with no antlers only in the winter). B) Only a limited number of bulls mixed with the Bathurst (Tłı̨chǫ herd) caribou cows will be available for harvest and the number will be regulated through a tag allocation system to avoid over-harvesting of the Bathurst herd bulls. Subject to changes if results of fall composition surveys reveal a low number of bulls in the herd. A low ratio of bulls to cows can be a concern for the health of the herd. Recommendation is to harvest Bluenose East (Sahtu herd) and Ahiak caribou (Inuit herd) males	Conservation measure and under Tłı̨chǫ Agreement A tag allocation system for aboriginal harvest may also be considered to ensure that no over harvesting of bulls take place on any herds. Regulation will be required Subject to approval by SRRB, BQCMB and Nunavut for recovery actions outside Wek'eezhii.

No.	Issue	Actions to help herds recover/*Lead Government*	Rationale
		in the fall. Again, mobile harvesting zones to be determined based on the seasonal distribution of collared caribou. **TŁĮCHǪ GOVERNMENT** No restriction on male harvest.	
6.	Public and Hunters Education	Multi-party initiative which includes TG, ENR, WRRB and other co-management boards and communities. /*Joint by both governments* Funding might be made available from ENR to the TG and/or WRRB to develop a DVD production on traditional and ethical hunting practices.	The Bathurst caribou herd is important to the lives of northern people and their environment. Having respect for the caribou is essential if people are to live in harmony with their surroundings. Knowledge on respect of animals and best hunting practices should be passed on from the elders and experienced hunters to younger generations.
7.	Compliance *(Information only. No direction is required from the Board on this action.)*	Continue winter road check station on Tłı̨chǫ winter roads. /*Joint by both governments* ENR to conduct weekly patrols during fall and winter in Wek'èezhìi with more wildlife officers. /*ENR* Impose a 200 meter-wide no-hunting zone on either size of the winter road /*Joint by both governments* Creation of 1 seasonal (fall and winter) wildlife guardian position for each Tłı̨chǫ community to assist with the proposed mandatory caribou reporting system and Hunters Education/ Joint	Ensure harvesters are not wasting meat and all harvesters are hunting legally and in suggested prescribed zone. No public interest implications in Wek'èezhìi. Respect for animals and no carcasses/gut piles on the winter road. Some of the new proposed recovery and monitoring actions will require ongoing community participation and a person dedicated to facilitate their implementations.

No.	Issue	Actions to help herds recover/*Lead Government*	Rationale
8.	Protection of Calving Ground	Consultation and collaboration between GNWT and Nunavut to ensure current level of protection is maintained. /*Joint by both governments*	Calving and post-calving area for all herds is critical to ensure early survival of cows and calves after birth.
9.	Mandatory Harvest Reporting System	Mandatory reporting of harvest for Aboriginal hunters - visit Tłı̨chǫ hunters once per month to determine number and location of caribou harvested. ENR will provide calendar for hunters to record harvest/*Joint by both governments*.	Harvest can have a direct impact on the size of a herd and when numbers are low it will affect potential for recovery. It is important for wildlife managers to understand the source and the magnitude of mortality in order to make better management actions and to better partition the harvest by herd.

Appendix B: Proposed Actions to monitor the Bathurst, Bluenose East and Ahiak herds for trends and the Bathurst Herd to recover.

	Issue	Monitoring action	Rationale
1.	Spring calf survival	Conduct composition counts in late March or early April for the Bluenose East, Bathurst and Ahiak herds. Classify caribou as calves (less than 1 year old), cows and bulls. / *Joint by both governments*	The number of calves surviving past their first winter is a measure of recruitment of the herd and should be conducted annually regardless of the status of the herd.
2.	Health and condition	Assess fall and spring condition of caribou by looking at animals harvested in September and in late March. Collect samples for parasites, diseases and condition of caribou. Harvest to be done during community hunts and revolve among Tłı̨chǫ, Akaitcho and Metis organizations. / *Joint by both governments*	Health and condition of caribou influences adult survival. This information helps to assess trend of herd.
3.	Pregnancy rate	Tłı̨chǫ hunters to assess presence/absence of fetuses in 20 cows hunted during winter and also measure back fat for condition. /*Joint by both governments*	Assessment of pregnancy rate is an indicator of productivity and helps to assess trend of herd. Will also provide an avenue for elders to get some meet and fetuses without taking the risk of overharvesting the female population.
4.	Birth rate	Conduct composition counts at peak of calving for the Bathurst herd Classify caribou as breeding cows and calves. / *Joint by both governments*	Number of calves per 100 females is an indicator of productivity and helps to assess trend of herd
5.	Adult sex ratio and fall calf survival	Conduct composition counts between Oct 15-30 (rut). Classify caribou as calves, cows and bulls on the Bluenose East, Bathurst and Ahiak herds in the fall. / *Joint by both governments*	Sex ratio in the herd is used to assess trend of herd. It is also required to determine overall population estimate when a photographic census of the calving ground is conducted. Number of calves returning from the summer migration provide a measure of summer survival. If a bull only harvest is implemented, then a fall composition survey is essential to assess number of bulls in the herds.
6.	Wolf den occupancy	Wolf pup survival should be monitored using summer surveys of den sites determined to be	Provide a cost effective method to assess trend in wolf population

	Issue	Monitoring action	Rationale
		active during spring surveys. / *Joint by both governments*	
7.	Wolf condition and reproduction	Collect wolf carcasses from trappers and hunters and determine pregnancy rates and condition. Determine if wolves are hunting caribou or hunting other species. / *Joint by both governments* Provide incentives and training to hunters and trappers to promote further wolf hunting and trapping .	Provide a direct measure of health and condition of wolves, age structure and productivity in order to assess trend in wolf population.
8.	Estimate of herd size	Conduct photographic census of breeding females on calving ground in June 2012. / *Joint by both governments*	This information is combined with other monitoring information to estimate size and trend of herd in order to develop appropriate management actions.
9.	Insect abundance	Set out portable weather stations during key period in the summer across the range of migrating caribou to assess and monitor insect numbers and potential impact on caribou feeding behavior. / *Joint by both governments*	Insect abundance will affect ability of caribou to feed adequately during the summer. This project is expected to be a cost effective permanent monitoring action to assess impact of insect harassment on caribou.
10.	Historical summer range condition	Compare NDVI index from remote sensing imagery to track green-up patterns on summer range and productivity of vegetation/*Joint by both governments*	Look at whether summer range condition has changed over time and whether this is related to herd declines.
11.	Increase the total number of female caribou collars from 20 to 50 for the Bathurst herd.	New collars will be deployed in March of 2010. /ENR's recommendation only.	One of the main recommendations of the ARC report. Needed to monitor movement and distribution of caribou on a seasonal basis and to avoid accidental harvesting on Bathurst caribou. Provide a better assessment of cow survival which is not adequately done at this time given the low sample size of collars on Bathurst cows. A few collars deployed on bulls is also proposed in order to understand better their movement,

	Issue	Monitoring action	Rationale
			distribution and survival.

APPENDIX B List of Registered Parties

Proponents

- Environment and Natural Resources, Government of the Northwest Territories
- Tłı̨chǫ Government

Expert Witness

- Dr. Anne Gunn

Registered Intervenors

- Arctic Safaris
- Bathurst Inlet Developments (1984) Ltd
- Camp Ekwo/Rabesca's Resources
- City of Yellowknife
- Karen McMaster
- National Rifle Association
- Northwest Territories Tourism
- North Slave Métis Alliance
- NWT Métis Nation
- NWT Wildlife Federation
- Peterson's Point Lake Lodge
- Qaivvik Ltd
- Shoshone Wilderness Adventures
- Caribou Pass Outfitters
- Robert Turner
- True North Safaris Ltd
- Yellowknife Chamber of Commerce
- Yellowknives Dene First Nation

Registered General Public

- Pierre Beaverho
- Harry Apples
- Jimmy Martin
- Margaret Tatsia
- Bernadette Naskin
- Louis Zoe
- Jimmy Kodzin
- Peter Huskey
- Leon Modeste
- James Lafferty
- Phillip Dryneck
- Eddie Camille
- Joseph Mantla

- Sophie Williah
- John Bekale
- Attima Hadlari
- Peter Taktagon
- Lucassie Nakoolak
- Larry Roy
- Pierre Tåokka
- Walter Bayha
- Francis Simpson
- Fred Sangris
- Robert Ruttan
- Mary Adele Tatsia
- Leon Lafferty
- Louie Wedawin
- Eddie Erasmus
- Charlie Jim Nitsiza
- Jonas Sangris
- Philip Dryneck
- Alfonz Apple
- Madeline Chocolate-Pasquayak
- John Mantla
- Joe Champagne
- Dora Migwi
- Cecilia Wetrade-Boyd
- Celine Mackenzie-Vukson
- Melanie Lafferty
- Phillip Whane
- Johnny Simpson
- Charlie Simpson
- William Weyallon
- Charlie Football
- George Mackenzie
- Isador Charlo
- Joe Nelin
- Joe Black
- Georgina Simpson
- Robyn Mantla

APPENDIX C **WRRB's Rulings on Legal Questions Raised by Parties to this Proceeding**

WEK'ÈEZHÌI RENEWABLE RESOURCES BOARD

IN THE MATTER OF: A Wildlife Management Proposal Submitted by The Government of the Northwest Territories Department of Environment and Natural Resources and the Tłı̨chǫ Government to Address the Management and Protection of Bathurst Caribou;

AND IN THE MATTER OF: Legal Questions Raised by Parties to this Proceeding and requesting Rulings from the Board:

REASONS FOR DECISION

1. INTRODUCTION AND BACKGROUND:

The Wek'èezhìı Renewable Resources Board (WRRB) is conducting a legal proceeding, including a hearing, which will result in recommendations to the Minister of Environment and Natural Resources (ENR) and the Tłı̨chǫ Government about a wildlife management proposal which addresses the need to protect the Bathurst Caribou Herd. This proceeding was initiated by the filing of a Wildlife Management Proposal (the Proposal) on November 5, 2009. Over the course of this proceeding, several parties have raised legal issues or questions for the Board's attention. The Board has treated these issues as Requests for a Ruling in accordance with its draft Rules of Procedure.

The Board set December 11, 2009 as the deadline for the identification of such issues and then compiled the list of concerns raised by those parties to the proceeding which indicated that they had concerns. Four parties (Mr. Boyd Warner; Mr. John Andre; North Slave Métis Alliance and Ms. Karen McMaster) identified issues.
The list of issues was circulated to all parties to the proceeding on February 1, 2010. The parties were offered the opportunity to respond or comment on any of these legal issues. Only one party (ENR) responded to any of the issues.

The Board has considered the matters raised by the parties, the response and the information available on the record for the proceeding in making its ruling on the issues.

Below, each of the issues is listed and explained. The Board's analysis for each issue is then set out. The Board's decision with respect to the disposition of the issue is then rendered.

2. THE ISSUES AND THE BOARD'S DECISION:

Issue # 1 Raised by Mr. Boyd Warner (17/12/09)

> The Bathurst Caribou Management Plan is not endorsed by any of the representative organizations and therefore is invalid.

ENR Response:

> The Bathurst Caribou Bathurst Caribou Management Plan was released in December 2004. It was prepared by a committee consisting of representatives from federal, territorial and Aboriginal Governments, First Nations, Inuit organizations, institutions of public government and communities on or adjacent to the herd's range. The committee was established in 2000 and operated by consensus. Extensive consultations were held in 2004. Although not formally endorsed by others, ENR considers the plan to be a valid guidance document when considering monitoring and management actions.

Analysis:

The status of the Bathurst Caribou Management Plan is not in issue in relation to the Proposal before the Board. The Tłı̨chǫ Agreement requires a Board response and recommendations related to the Proposal. This issue is not relevant to the Proposal.

Decision:

This issue is dismissed. It is not relevant to the Proposal or the proceeding.

Issue # 2 Raised by Mr. Boyd Warner (17/12/09)

> No valid information available on which herd the bulls harvested by outfitters come from.

ENR Response:

> The joint proposal submitted by the Tłı̨chǫ Government and ENR proposes actions for all three caribou herds located in the North Slave region. Bulls have been collared in the Bluenose-East herd but not the Bathurst and Ahiak herds. The bulls are considered to be Bluenose-East as they are consistently associated with Bluenose-East cows. There is no evidence to suggest that bulls in other caribou herds act differently. Thus, it is reasonable to assume that the location of the cows can be used to identify the herds that outfitters are harvesting.

Analysis:

Mr. Warner's issue is one of fact or evidence and not law. It is a matter which can be explored in questioning at the hearing. The Board is not in a position to address this question until it considers all the evidence and not all information is available yet. A ruling would be premature at this time.

Decision:

Defer issue for consideration at the hearing. Mr. Warner would be advised to address it at the hearing when he questions ENR.

Issue # 3 Raised by Mr. Boyd Warner (17/12/09)

> No formal consultations were held with outfitters prior to the reduction or elimination of tags.

ENR Response:

> A Meeting was held with outfitters and Deputy Minister in July 23, 2009 to discuss the decline of the Bathurst Caribou herd and possible management actions including the elimination of tags. Outfitters participated in the Bathurst Decline Workshop in October 23, 2009 to discuss recovery options. A letter was sent by the Deputy Minister to all outfitters in October indicating the potential elimination of all outfitting tags for barren ground caribou, including a caution about accepting reservations for outfitted hunts for 2010 season.

Analysis:

Consultation with affected parties is a matter of good wildlife management but in the case of outfitters' businesses it is not required by law in the same way as consultation with the holders of aboriginal rights. The evidence filed by ENR conflicts with Mr. Warner's assertion. In any event, the Board is not responsible for nor could it enforce a requirement for ENR to consult outfitters before this proceeding was initiated.

Decision:

This issue is dismissed.

Issue # 4 Raised by Mr. Boyd Warner (17/12/09)

> If the WRRB makes a ruling, is it then that body that would be held accountable in the future for losses/claims by groups or individuals if any of those groups were successful in proving that the caribou are not in the crisis we are told they are in?

Analysis:

This is not a request for a ruling. It is a question about the potential for WRRB liability for its decisions.

In most cases the Board merely makes recommendations and the final decisions are made by government. Any party aggrieved by the Board's decision or proceeding has recourse to the Courts. The Board is not in a position nor should it speak to liability issues in an ongoing proceeding.

Decision:

This matter is dismissed. It is not a relevant issue in relation to the Proposal.

Issue # 5 Raised by Mr. Boyd Warner (17/12/09)

ENR is not following the recommendations of the ARC report re: transparency and treating caribou as a meta-population.

ENR Response:

ENR interprets the reference to "transparency" as sharing information in an open manner. ENR has provided presentations on all survey results and analyses and held workshops where information was openly shared. ENR has limited sharing of draft reports as there is a duty to provide the best information to the public.
With respect to meta-populations, the ARC report validates the approach of managing by herds (as defined by calving grounds) as standard practice across North America. ARC suggested that ENR should increase collar numbers to confirm the degree of closure (i.e. rate of exchange) of herds. The ARC report states, *"In contrast, no data support the competing hypotheses that all caribou should be treated as one herd, nor that mass movements between herds have demonstrably occurred*. However, for management purposes, the ARC report suggests the analysis of data for each herd should be integrated within a larger population framework.

Analysis:

This is not a legal issue. It questions the ENR management approach and science and is a matter best left for cross examination at the hearing. The Board is not in a position to rule on this issue at this time. It is premature.

Decision:

Defer issue. Mr. Warner would be advised to address it at the hearing when he questions ENR.

Issue # 6 Raised by Mr. Boyd Warner (17/12/09)

ENR has not adequately informed stakeholders of which caribou live and use the North Slave (Management Unit R) and has failed to propose a management plan.

ENR Response:

In the last 3 years, ENR has done annual presentations to boards, user groups (e.g. outfitters) and communities on an animation of caribou movements and which caribou herds are seasonally found in Management Unit R.
With respect to a management plan, ENR has undertaken the following actions:

- In 2004, ENR released a draft Bathurst Caribou Management Plan which ENR uses as a guidance document. The plan was developed collaboratively with all management authorities and communities that share the herd.

- In late 2006, ENR submitted a proposal to the Wek'èezhìı Renewable Resources Board on management actions for barren-ground caribou in the North Slave region.

- ENR has been working with the Tłı̨chǫ Government and the Wek'eezhii Renewable Resources Board to develop a management process for the Bathurst herd as directed by the *Tłı̨chǫ Agreement*.

- A management plan exists for the Bluenose-East herd which is now being revised by an inter-jurisdictional committee lead by the wildlife co-management boards in the NWT and Nunavut.

- Maps of radio-collar locations from the Ahiak, Bluenose East and Bathurst herds during fall and winter were presented at workshops in October 2009 and are contained in ENR's Bathurst workshop report and the longer Bathurst technical report. Other ENR reports have used maps based on radio-collar data for all herds monitored by ENR.

Analysis:

This is not a legal issue. It questions the ENR management approach and information sharing and is a matter best left for cross examination at the hearing. The Board is not in a position to rule on this issue at this time. It is premature.

Decision:

Defer issue. Mr. Warner would be advised to address it at the hearing when he questions ENR.

Issue # 7 Raised by Mr. John Andre (21/12/09)

> Assuming there is no new data to support the use of the emergency clause, will the WRRB go to court to maintain its right to manage wildlife in Wek'èezhìı, or does it intend to permanently cede that right to the GNWT?

Analysis:

This appears to be a rhetorical question. The matter raised is not in issue in the current proceeding. Further it is based on an assumption for which there is no evidence on the record that being that the WRRB has "ceded jurisdiction" to the Minister of ENR. The ENR exercise of emergency power is authorized by Tłı̨chǫ Agreement. Procedures for emergency actions are set out in the Tłı̨chǫ Agreement, Section 12.5.14. Emergency Interim Measures are not a matter before the Board at the upcoming hearing.

Decision:

This issue is dismissed.

Issue # 8 Raised by Mr. John Andre (21/12/09)

> Will the WRRB go to court to explain to ENR exactly where the Bathurst wintering ground is, so that the entire wintering area is protected? (It appears that the area closed deliberately avoids the Akaitcho region, currently involved in land claims negotiations. Certainly, ENR and the WRRB do not intend to manage migratory species based on land claim settlements).

Analysis:

This appears to be a rhetorical question. The matter raised is not in issue in the current proceeding. There is no basis for seeking to involve the Courts in the kind of factual issue set out by Mr. Andre. The current proceeding is not the place to be debating the scope of the closure imposed by ENR. Emergency Interim Measures are not a matter before the Board at the upcoming hearing.

Decision:

This issue is dismissed.

Issue # 9 Raised by Mr. John Andre (21/12/09)

> Apparently, some area of the NWT is being opened up to unlimited Woods Bison hunting. If this area is in Wek'èezhìı, will the WRRB go to court to prevent this hunt?

ENR Response:

> As part of the interim emergency measures to offset reduced access to caribou, ENR has established two new wood bison management areas in Unit R. R/WB/01 is located west of Behchoko and has a quota of 45 tags. These are to be allocated by Tłı̨chǫ Government, Yellowknives Dene First Nation and Metis groups. The second zone R/WB/02 is located east of Behchoko to Yellowknife and is open to all General Hunting Licence holders.

Analysis:

The answer to Mr. Andre's question in respect of legal action by the WRRB to challenge the ENR creation of new Wood Bison hunting areas and the allocation of 45 tags should be the same as for previous questions. The Board is not in a position to challenge this decision in the Courts.

Decision:

This issue is dismissed.

Issue # 10 Raised by North Slave Metis Alliance (NSMA) (18/12/09)

Has a proper, legal declaration been made about barren-ground caribou to be game in danger of becoming extinct? Has the Crown acted illegally in announcing restriction on Aboriginal harvesting?

ENR Response:

For NSMA Questions 10, 11, 12 and 13

Barren-ground caribou have been listed as being in danger of becoming extinct since 1960, when the Government of Canada implemented Regulation 1236 under the *Northwest Territories Act*, a piece of federal legislation.

The *Northwest Territories Act* (and its attendant *Regulations)* is the law that grants the Government of the Northwest Territories its legal authorities and powers, including the authority to regulate game. These laws apply to everyone, including Aboriginal persons.

Aboriginal rights are extremely important, but they are not absolute. Canadian courts have consistently allowed governments to infringe Aboriginal rights where it was necessary and justified, provided that the government has taken steps to minimize the infringement.

Any infringement of an Aboriginal right must be justified, and the government must be able to satisfy a court of law that it has met a three-part legal test:

1. That there is a valid legislative objective
2. That there has been as little infringement as possible to achieve the desired result, and
3. That there has been consultation regarding the measures being implemented.

In the case of the joint proposal currently before the WRRB, the Government of the Northwest Territories and the Tli Cho Government have worked together to develop this joint proposal in order to ensure the long-term recovery of the Bathurst caribou herd, a herd on the verge of extinction.

In drafting the joint proposal survey results were shared with affected groups beginning in July, 2009. A number of affected groups participated in the Bathurst Caribou Decline workshops held in October to discuss recovery options. Letters sent in October 2009 to potentially affected Aboriginal governments and organizations to discuss recovery options. Consultation meetings on the joint proposal we held in November and December 2009. GNWT will be submitting results of the consultations to the WRRB.

Once recommendations are received from the WRRB, the GNWT and Tłı̨chǫ government will consult with each other, and GNWT will undertake further consultation if required.

At current harvest levels the long-term survival of the Bathurst herd is in serious doubt, given model projections of extinction in 3-5 years. In our view, the joint proposal is aimed at the best interests of Aboriginal people, as the recovery of the herd will ensure future generations of Aboriginal hunters will have Bathurst caribou to hunt in order to feed their families and protect their culture.

Analysis:

There is a regulation declaring barren ground caribou to be game in danger of becoming extinct. In any event, this question has now been moved to the Courts by the GNWT. The Board does not have to make such a ruling on questions about the GNWT's authority to regulate aboriginal harvesting in this proceeding. The upcoming hearing is to address the Bathurst Caribou Joint Management Proposal, not the Emergency Interim Measures. The WRRB has no authority to question legality of Emergency Interim Measures.

Decision:

This issue is dismissed**.**

Issue # 11 Raised by the NSMA (18/12/09)

Constitutional rights cannot be infringed without justification. Justification, in the case of Aboriginal Peoples involves adequate Crown Consultation and Accommodation. Has the Crown justified infringement to harvest wildlife for traditional purposes? Is there a valid conservation concern? Had the existing policy of priority allocation been taken seriously? Have all other conservation options been considered? Has there been adequate Crown Consultation? Is this proposal the least infringement possible to affect the desired result? Is fair and adequate compensation made available?

ENR Response: (see above)

Analysis:

There are a series of questions for ENR imbedded in this NSMA "issue". Most of them could or should be pursued in questions of ENR in the hearing. These questions are not for the Board to answer. The Board is only reviewing a specific wildlife management Proposal. The question of consultation and the adequacy of consultation must be explored between NSMA and the GNWT and it is not relevant to the questions posed by the Proposal. WRRB has no authority to make a ruling on questions like this.

Decision:

This issue is dismissed.

Issue # 12 Raised by the NSMA (18/12/09)

> Has the Crown provided adequate information? Has the Crown provided adequate time and opportunity to formulate views? Has the Crown made an honorable effort to accommodate rights?

ENR Response: (see above)

Analysis:

This issue or question is subject to the same analysis as question 11 above. The first two questions can be pursued in the hearing. The last question is outside the scope of the Board's authority.

Decision:

Dismissed.

Issue # 13 Raised by NSMA (18/12/09)

> Has the Crown fulfilled its fiduciary duty to manage caribou in the best interests of the Aboriginal people? Has the Crown breached the terms of Treaty 11 with regard to the protection of the right of the Aboriginal people to live their traditional lifestyle without interference or completion from "white people"?

ENR Response: (see above)

Analysis:

The matters raised in these questions are not within the jurisdiction of the Board. They involve complex issues which should be addressed by the NSMA directly with the GNWT.

Decision:

Dismissed.

Issue # 14 Raised by the NSMA (18/12/09)

> Have the Tłı̨chǫ Government, Crown and WRRB taken steps to acquire and use Métis TK?

Analysis:

These questions should be addressed to those parties in the hearing. This information is not in the Board's hands.

Decision:

Dismissed. This question can be raised at the hearing by the NSMA.

Issue # 15 Raised by the NSMA (18/12/09)

> Why has the WRRB left the Métis organizations out of their definition of First Nation and how does this affect the rights of the Métis to just and equitable treatment by the WRRB?

Analysis:

This issue relates to the definition of First Nation used in the Board's draft Rules of Procedure. Exclusion of the Metis from this definition is not intended to prevent members of that organization from fully participating in the Board's proceeding. NSMA members like any participant will be treated fairly and equitably throughout the process.

Decision:

The draft Rules of Procedure will be reviewed after the hearing in this proceeding. The NSMA has the same right to a fair process as all other parties. This right is not affected by the wording of the draft Rules.

Issue # 16 Raised by the NSMA (18/12/09)

> Section 12.7.1 of Tłı̨chǫ Agreement "must allocate a sufficient portion of a total allowable harvest level for any other Aboriginal people to exercise its rights to harvest wildlife in Wek'èezhìı … how does the WRRB or the Crown intend to do this with (sic) consulting the Métis?

Analysis:

The question presupposes that the WRRB will make a Total Allowable Harvest (TAH) decision. If the Board does that it must also allocate the TAH as set out in s.12.7.1 of the Tłı̨chǫ

Agreement. It is premature to attempt to answer this question. The Board will seek input from affected parties if it decides to impose a TAH.

Decision:

The question is premature and is deferred. If it must be addressed, it will, depending on the Board's decision on the proposal.

Issue # 17 Raised by Ms. Karen McMaster (23/11/09)

> Do the Environment Minister of the GNWT and Tłı̨chǫ believe that Canada has a constitutional duty to ensure the caribou are around for aboriginals? I believe the Minster of the Environment said the reason for the actions is we need to ensure a supply to the aboriginal community. This goes directly against the Tłı̨chǫ land claim agreement which specifically does not guarantee the supply of wildlife. What is the basis of this? Please refer to court decisions.

ENR Response:

> The mandate of the Minister and the Department of Environment and Natural Resources is to promote and support the sustainable use and development of natural resources and to protect, conserve and enhance the Northwest Territories environment for the social and economic benefit of all Northwest Territories residents.

Analysis:

The Board cannot answer this question. It would require speculation. The question includes argument as well. There is no legal issue in the question which the Board has authority in this proceeding to address.

Decision:

This issue is dismissed.

Issue # 18 Raised by Ms. Karen McMaster (23/11/09)

> Why has the government (GNWT/Federal) not appointed another representative to balance the board for such an important issue?

ENR Response:

> The GNWT may nominate 2 members and both are on the Board.

Analysis:

The Board is not in a position to answer this question. In any event this is not a legal issue over which the Board has any authority in the context of this proceeding.

Decision:

This issue is dismissed.

Issue # 19 Raised by Ms. Karen McMaster (23/11/09)

> Have you obtained a legal opinion that the proposed action plans do not infringe re the Charter of Rights?

Analysis:

The WRRB has not sought such a legal opinion.

Issue # 20 Raised by Ms. Karen McMaster (23/11/09)

> Is there a Supreme Court of Canada decision which indicates TŁĮCHǪ have the right to harvest at any cost, without regard to conservation, the cost to NWT citizens and infringement of human rights?

Analysis:

The Board is not in the business of conducting legal research to advise participants in our proceedings of the law and of their rights. The process works the other way. If a party wants to raise a legal issue they must identify it, support their position and convince the Board to do something about the issue.

Decision:

This question is dismissed.

Issue # 21 Raised by Ms Karen McMaster (23/11/09)

> Other legal issues that will be raised during the hearing, including but not limited to, jurisdictional issues, interpretation of land claims, constitutional issues and human rights issues, conflict of interest, due process/natural justice, and consultation.

Analysis:

The Board requested that the parties identify any legal issues so that they could be addressed in advance of a hearing in order to make the process efficient. The parties should be aware that waiting to the last minute to raise an issue is not helpful to the Board or this process overall. If it is clear that an issue could have been raised earlier the Board will deal with the matter accordingly.

Signed this 26th day of February, 2010 on for the Wek'èezhìı Renewable Resources Board:

Grant Pryznyk, Interim Chair

Witness

APPENDIX D Summary Table of Intervenor's and Registered Public's Recommendations

Summary of Intervenor and Public Recommendations

	Recommendation	Rationale	WRRB response
Adaptive Management			
1	support a viable outfitter industry	based on personal observations over 40 years, caribou numbers are not down	Sec. 9
2	Grandfather current licenses	barren ground hunting provides $4 million to NWT economy	Sec.9.3
3	consider the social and economic viability of the NWT; do socio-economic assessment of measures	sport hunting contributes significantly to attracting and retaining workers; outfitter industry has significant contribution to economy (Outfitting brings in 24 million dollar a year industry in the north), businesses and to First Nations through supply of meat and employment.	Outside WRRB mandate
4	detailed analysis of product diversification options for existing caribou outfitters and available financial assistance to develop/market products	outfitters have spent decades developing their product and building their client base - neither of which can be easily replaced; demise of outfitter business will have financial implications for YK and NWT business and loss of expertise in tourism	Outside WRRB mandate
5	GNWT should develop a report outlining immediate and future impacts caribou management will have on herds, hunters, residents, outfitters, business/mining industry	sport hunting contributes significantly to attracting and retaining workers	Government responsibility
6	consider limited commercial, outfitter hunt after very thorough consultation with aboriginal residents	steps need to be taken, urgently and firmly to enable the herd to recover; priority of harvest in Tlicho Agreement does not mean exclusivity	Sec.9.3
7	keep outfitter tags at the current level	provides a traditional way of life for a number of aboriginal guides, contributes meat to communities and guides the development of ethical hunting practices; suspending caribou tags to outfitters is not biologically justified; the number of outfitter tags has not impact on the herd	Sec. 9.3

	Recommendation	Rationale	WRRB response
8	compensation for the 2010 season	we were led to believe in 2008 that there would be no further restrictions to outfitter tags; without compensation cannot afford to go through the years needed to build another business	Government responsibility
9	until more data are available encourage outfitter to sell single tag hunts until population has stabilized	successfully switched to single tag hunts a few years ago	Sec. 9.3
10	eliminate outfitted harvest	represent the appropriate first measures towards conservation; there have been many changes on the Bathurst range and caribou have been declining; government has continued to allow non-aboriginal harvesting - in conflict with the obligation to give priority allocation to aboriginal rights	Sec. 9.3

Consultation

	Recommendation	Rationale	WRRB response
1	consultation needed with impacted stakeholder groups	substantial revenue generated from outfitting business	Government responsibility
2	direct ENR to initiate consultation efforts that show why and what effect the proposed infringements will have towards the herd recovery	need to include scenario modelling, examining things such as aborigianl harvest restrictions, male only harvest, 4% total annual harvest via tags/lottery	Government responsibility
3	thorough consultation with communities and co-management boards outside Wek'eezhii that may be directly affected by recommendations.	recommendations may result in competition for harvest from adjacent declining herds	Government responsibility

Community Involvement

	Recommendation	Rationale	WRRB response
1	use collaborative, community based management approaches	has been successful elsewhere; may lessen dependency on compliance and enforcement	Sec. 12.2, 14
2	involve a wide variety of stakeholders in data collection, research and management of caribou	unilateral decision on data interpretation problematic as is lack of data sharing; biases of ENR; outfitters are a source of knowledge, observing caribou over decades	Sec. 12, 14

	Recommendation	Rationale	WRRB response
3	include First Nations people and traditional knowledge and values into decision-making, actions and monitoring	First Nations will once more stewards of the caribou; management is more successful when approaches are collaborative; consistent with recommendations from Caribou Summit	Sec. 12.2, 14
4	support multi-party initiatives that include co-management boards and communities in discussion of proposed management actions that may affect caribou harvesters and people that depend on caribou outside Wek'eezhii	will encourage good hunting practices from all caribou herds	Sec. 10,11 14
5	engage the mineral industry in the development of caribou management plans	particularly where such plans might impact on or affect the mineral industry and the long term economic viability of the NWT and Nunavut.	Sec. 18

Enforcement

	Recommendation	Rationale	WRRB response
1	add more staff in enforcement	there may have been excessive hunting/poaching	Government responsibility
2	continue winter road check stations and conduct frequent patrols during fall and winter	there may have been excessive hunting/poaching	Government responsibility
3	control access to winter road	represents the single easiest step to limiting harvesting opportunities while respecting aboriginal access rights	Government responsibility
4	reduce wastage of meat	wastage of meat is a problem recognized by communities across the Beverly and Qamaniujuaq caribou ranges	Sec. 13
5	consistent and transparent enforcement across herds	given overlap of two herds in winter and potential for restrictions on one herd to result in overharvest of the other	Government responsibility
6	identify consequences if 300 is not met	enforcement must be as per others in the NWT including infractions by resident hunters and outfitters regarding quotas	Sec. 9.5

Education

	Recommendation	Rationale	WRRB response
1	add more staff in hunter education areas	there may have been excessive hunting/poaching	Sec. 13

	Recommendation	Rationale	WRRB response
2	develop and implement public and hunter education	courses based on safety, best practices and reducing wounding loss combining TK and other methods powerful tool for improving harvesting techniques; to encourage good hunting practices for all caribou herds	Sec. 13

Harvest

	Recommendation	Rationale	WRRB response
1	aboriginal subsistence hunting be considered for outlying communities based on quotas	community members should be selected (based on trustworthiness and wisdom) for community committees to advise on quotas for those families dependent on caribou as their primary food source	Sec. 9.5
2	if a small amount of harvest is allowed set it below the sustainable level if the herd is to recover and give give priority to aboriginal people most in need for subsistence	must give opportunity for herd to recover; people have gone without caribou before and harvested other species, can do it again; over short term culture won't die but loss of the entire herd could mean loss of our culture	Sec. 9.5
3	an allowable harvest should be introduced in stages and only through consultation with aboriginal residents	steps need to be taken, urgently and firmly to enable the herd to recover	Sec. 9.5
4	maintain current harvesting situration; do not set a TAH at this time	ENR's assessment of the situation is inappropriate and inaccurate and the proposed actions are unreasonable; not in the public interest; resident and outfitter bull harvest has minimal impact on future herd populations	Sec. 9
5	eliminate entire harvest of Bathurst herd for one or two years	the herd has declined drastically, ENR may be out by a few thousand caribou but it has declined; actions are needed to hart the decline and enable the herd to recover	Sec. 9
6	do not harvest other adjacent herds	adjacent herds are in decline and there is no desire to hasten the decline of neighbouring caribou herds	Sec. 10 and 11
7	reduce harvest pressure on male caribou of declining herds	will increase bull survival	Sec. 9, 10 and 11
8	TAH for Bluenose East herd be based on a very conservative estimate of the population size	diverting harvest to Bluenose Ease herd must be done conservatively and respect the harvest levels of Sahtu and other communities that harvest this herd	Sec. 10

	Recommendation	Rationale	WRRB response
9	manage expectations on the resumption of hunting; reinstatement targets need to be decided now before one takes away any aboriginal, resident and outfitter hunt	experience elsewhere shows recover can take time (decades) and resumption of hunting can be slow; there needs to be a target not just stopping a decline, otherwise the management plans are all in a vacuum and cannot be evaluated	Sec. 14
10	No outfitter or business harvesting	low caribou numbers; caribou must go to elders	Sec. 9, 10 & 11
11	Never kill lead caribou	they are important for future migration	Sec. 13
12	harvest caribou for elders only	caribou is medicine for the elders; it is life sustaining	TG responsibility

Commercial harvest

	Recommendation	Rationale	WRRB response
1	do not support elimination of commercial tags	consultation not adequate and no justification for infringing on constitutional rights	Sec. 9.2
2	eliminate all commercial meat tags	there have been many changes on the Bathurst range and caribou have been declining; increased sale of meat may have contributed to excessive hunting; represent the appropriate first measures towards conservation	Sec. 9.2

Cow harvest

	Recommendation	Rationale	WRRB response
1	Allow a small cow harvest	some cows may be harvested by accident by inexperienced harvesters unable to distinguish young bulls from cows; if it is illegal then these accidental harvests may be wasted for fear of prosecution	Sec. 10
2	limit or eliminate the number of cows that can be taken by anyone each season from the Bathurst, Bluenose or Ahiak herds	one cow and her offspring can increase a herd size by about 25 animals during that cows lifetime; increasing survival of female will have the greatest effect;need for rapid recovery to provide herd ability to cope with other changing conditions (weather, insects, fire, etc.); relying on harvest alone is risky; consultation not adequate and no justification for infringing on constitutional rights	Sec. 10, 11 and 12
3	eliminate harvest of females for scientific research purposes	one cow and her offspring can increase a herd size by about 25 animals during that cows lifetime	Sec. 12
4	don't support diverting female harvest from Bathurst to Ahiak	encouraging even limited harvest of females from herds to the east of Wek'eezhii could have serious impacts on the Beverly herd as hunters can't distinguish them from other herds	Sec. 11

	Recommendation	Rationale	WRRB response
Harvest reporting			
	Recommendation	**Rationale**	**WRRB response**
1	voluntary harvest reporting	may increase liklihood of compliance; tag system with sampling kit is used successfully in Inuvik region; current ENR approach yielded unreliable results	Sec. 12
2	require mandatory harvest and harvester identification;	considerable amount of information lacking about the nature of the harvest in the NWT and the number of caribou harvested especially by herd ; educate harvesters about the importance of this information in management and its role in herd recovery efforts	Sec. 12
3	implement harvest study directed by YKDFN	data should respect hunter privacy and remain the Intellectual property of the YKDFN	YKDFN responsibility
4	harvest data surveys should be a cooperative endeavour between all the relevant management agencies and Boards.	It is crucial that for any present and future harvest regime for both the Bluenose East and Bathurst herds that reliable community caribou harvest data be obtained.	Sec. 12
5	self-monitoring of harvest is not in the land claim agreement and will not work	we need accountability; may put undue responsibility and duties on community members	Sec. 12
Harvest regulation			
	Recommendation	**Rationale**	**WRRB response**
1	use seasons, zones and community allocation to regulate harvest	provides flexibility and a sharing of responsibility for recovery	Sec. 9.5
2	designate a male-only harvest based on quotas	has been shown elsewhere that a male-only harvest has minimal effect on a population; would allow for traditional, resident and outfitting hunt to continue	Sec. 9.5
3	consider a TAH of 5 caribou per aboriginal with a possession limit of 2 at any one time	steps need to be taken, urgently and firmly to enable the herd to recover	Sec. 9.5
4	create distinct hunting seasons that apply to all users	just as there are seasons for fish species at risk or for other mammals such as muskox or polar bear	Sec. 9.5
5	establish and enforce a 2km wide no-hunting zone on all roads with no hunting allowed from winter/ice roads	road access to this herd has made it extremely accessible to all hunters from across the NWT	Sec. 19
6	enforce a mandatory 12 hour wait after flying into an area for caribou	there may have been excessive hunting/poaching	Sec. 19

	Recommendation	Rationale	WRRB response
7	regulate the harvest of bulls through a limited tag draw system for resident hunters	this approach is similar to the issuance of bison tags	Sec. 9.4
8	if 300 is acceptable the harvest should be carried out in a controlled community hunt similar to those organized by ENR this past winter	none given	Sec. 9.5
9	the allocation of any number harvested should be delegated at a per capita ratio between the Tlicho and the Yellowknives Dene and the distribution of the harvested animals should be left to their discretion	none given	Sec. 9.5

Industrial development

	Recommendation	Rationale	WRRB response
1	need for permanent protection of calving ground of Bathurst herd	Bathurst caribou herd is the only herd whose calving grounds are not protected; the calving grounds are threatened by several all season road proposals, the Bathurst Inlet Port and Road, High Lake Road; there is no West Kitikmeot Land Use Plan therefore no development controls; govt of Canada opposes development in the Porcupine Herd calving grounds but does nothing to protect Bathurst herd	Sec. 15
2	implement caribou protection measures	may afford much needed protection on calving, post-calving ranges	Sec. 15
3	monitor cumulative effects, setting threshold for large scale development in the caribou range	will lead to a much better understanding of the landscape level effects of development on caribou; current ENR Cumulative Effects demonstration project to look at cumulative effects is limited to summer range; it should be expanded to entire range where development is more of a factor (need to look at habitat fragmentation, linear barriers such as the road and transmission line); role of roads in harvest ;	Sec. 12, 15
4	develop flight restrictions to limit the number of over flights of caribou	raised as significant concern at the Diamond Mine Monitoring Workshop	Sec. 15

	Recommendation	Rationale	WRRB response
5	current monitoring programs need to be made more compatible and help contribute useful data to the cumulative effects monitoring and management efforts	This is a shared responsibility and GNWT should take on a stronger coordination role as the regulator for the wildlife research activities carried out by the mines.	Government responsibility
6	develop best management practices with respect to appropriate mitigative measures to protect caribou during calving and post-calving	any land protection measures that prohibit mineral activity across larges land areas would have a major negative impact on the minerals exploration industry; there needs to be careful consideration and input from minerals industry	Sec. 15

Management

	Recommendation	Rationale	WRRB response
1	base harvest levels on total number of caribou in region not by herd (meta-population)	2009 Bathurst calving ground survey not reliable (late spring); all ENRs monitoring information from 06-09 has shown good condition and survival; personal observations of thousands of caribou; recommendation from ARC report; herds are not genetically, behaviourally or spatially distinct	Sec. 6, 9
2	consider Ahiak and Bathurst a single herd for management purposes	these two "herds" have historically been considered one; Ahiak calves on what was Bathurst traditional calving ground; Bathurst has traditionally moved from west to east of the inlet to calve	Sec. 6, 9
3	develop a suitable harvest management plan	we must work together to collect and manage caribou information and create a path forward; NWT is the only jurisdiction in Canada that does not have a harvest management plan	Sec. 18
4	encourage aboriginal people to harvest alternate foods by providing funds for transportation and shipping	NSMA has voluntarily restricted harvest for at least 5 years while asking government for better information and to take precautionary measures	Sec. 10,11, 17
5	reestablish the Bathurst Caribou Management Planning Committee with support for all affected First Nations (including Government of Nunavut)	all partners would then be committed to implementation of recommendations	Sec. 15
6	reinstate Special Aboriginal Harvesters Assistance Program	will encourage traditional land-base lifestyles	Government responsibility

	Recommendation	Rationale	WRRB response
7	consider the need for an independent co-management body to allow for more widespread oversight	a good example of this is the Porcupine Caribou Management board with multi-party transboundary membership	Sec. 18
8	work with partners to implement incomplete recommendations from previous management plans, workshops and sessions	ENR's continued inaction on fronts other than harvest restrictions; ENR must listen and engage in good faith	Government responsibility
9	evaluate this herd as a species at risk under the NWT Species at Risk legislation and work with COSEWIC to continue assessment under federal Species at Risk Act	another means of implementing broader protection of caribou	NWT Species at Risk Committee is currently prioritizing species including barren ground caribou for consideration
10	actions should not shift problems to neighboring herds and communities that depend on them; harvest should not be diverted	conservation measures for Bathurst should not be at expense of Beverly herd on which caribou-harvesting communities in the NWT, northern Saskatchewan and Nunavut have traditionally depended	Sec. 10, 11
11	start thoughtful studies of the herd by government and First Nations in 2010 and through 2012	so that the first stage of a realistic management plan might be made and	Sec. 12
12	stop all forms of habitat destruction and harvest caribou without waste; maintain caribou herd at smaller size	has been severe loss of winter habitat from wildfire, mineral development and winter roads	Sec. 15
13	do not create hunting zones.	"scared with the no-hunting zone - like being given the death penalty".	Sec 9, 10 and 11
14	Tłı̨chǫ should manage their own people's relationship to caribou and other wildlife	self-government and personal autonomy.	Sec 12
15	limit non-Tłı̨chǫ hunting on Tłı̨chǫ land.	protect carbiou for Aboriginal use.	Sec. 9
16	put forest fire out when they start	forest fires destroy caribou food	Government responsibility
17	biologist should not use drugs on caribou	drugs cause sickness	Government responsibility
18	do not ban hunt	feels like the caribou are stolen from us	sec. 9

	Recommendation	Rationale	WRRB response
20	all parties should work together	better decisions will be made	Sec. 14
Monitoring			
	Recommendation	**Rationale**	**WRRB response**
1	monitor cause of mortality of collared animals	need to be able to partition causes of death into predation, accident, disease	Sec. 12
2	monitor density of breeding cows on calving ground through aerial surveys	annual aerial surveys will act as a early warning to give us more frequent information on trend of herd	Sec. 12
3	monitor winter snow depth and ice events as well as extent of forest fires	these environmental conditions can be linked to demographic indicators	Sec. 12
4	use birth rate as a measure of pregnancy rate instead of relying on a small sample of harvest females	pregnancy of small sample will lack statistical power to detect to detect annual changes and trends especially if age of cows is skewed to older females	Sec. 12
5	need regular surveys and more collared caribou	current monitoring by ENR do not support conclusion of drastic decline	Sec. 12
6	do calving ground surveys all at one time	biologists could be missing animals; caribou that are not genetically distinct should be managed as metapopulation; don't know where all the caribou have gone - resident and outfitted harvest took 6-7000; aboriginal harvest 45 000-72 000 over six years	Sec. 12
7	resume forest fire control in caribou ranges	encourages precautionary management actions be taken which would not infringe on Aboriginal rights	Sec. 15
8	monitoring take place immediately by independent sources	question ENR motivation for management actions restricting resident and outfitter harvest; current population and reported decline of Bathurst herd is not substantiated by sound scientific data	outside WRRB mandate
9	annual monitoring of Bathurst and adjacent herds to generate accurate and relevant data; science should be peer-reviewed and all monitoring data made available to the public	ensure actions are achieving desired results; don't understand the decline as caribou are fat and healthy and we are still seeing large numbers in Point lake area; ENR data currently available is questionable	Sec. 12

	Recommendation	Rationale	WRRB response
10	do not support additional 30 collars	further discussion with leadership and elders is required; should consider why collars are required and what alternatives or different nethods are available; consider pilot program to collar caribou at water crossings	Sec. 12
11	undertake studies that look at the impacts collars have on feeding and movement rates and general impacts to body condition and reproductive success	need this information prior to agreeing to more collars	Sec. 12
12	use monitoring data from mine wildlife monitoring programs	the mining industry can make valuable contributions to the decision-making process through the extensive monitoring done by mining companies	Sec. 14
13	an assessment of the present status of the whole herd, not just the "calving" herd and its habitat should be conducted before management decisions are made	a re-survey of the "calving" herd at any time would not provide an accurate evaluation of any three year management program as every year there are a different number of cows having calves (some not bred, some lose their calves, some hunted and others taken by predators)	Sec. 12
14	obtain key demographic data on the Bluenose East herd including early and late calf survival, recruitment and adult sex ratio	to support interpretation of population survey results and aid in development of appropriate management actions	Sec. 12
15	setting levels for cow/calf ratios is not an appropriate monitoring objective	these ratios are more dependent on environmental variables than management actions	Sec. 12, 14
16	listen to the harvesters and elders who understand the relationship between wolves and caribou, and how wolverines and bears harvest caribou.	Aboriginal harvesters watch these relationships.	see Appendix F
17	Listen to Aboriginal hunters and elders who have observed and used caribou.	Aboriginal Peoples have traditionally used the caribou for everything: clothing, food, shelter, tools and continue to observe the fitness and behaviour of caribou. Watch the caribou as they travel through snow and across ice. Observe how many fall through ice.	see Appendix F
18	Remove caribou collars	Collars create problems for caribou. If caribou are scared or in pain, they becomes stressed and can starve.	

	Recommendation	Rationale	WRRB response
19	Listen to Aboriginal harvesters when they say caribou are diseased.	Aboriginal Peoples are accostum to judging caribou health	see Appendix F
20	Long-term monitoring	provide more reliable data	Sec. 18
20	increase # of collars	better monitoring data	Sec. 12
21	increase # of areal surveys	better monitoring data on influence of adjacent herds	Sec. 12
22	increased demongraphic monitoring	will provide better information on cow-calf ratio andcalf survival	Sec. 12
23	use population models	strategies and adaptive management	Sec. 12

Other

	Recommendation	Rationale	WRRB response
1	join with the NWT caribou outfitters on a high profile caribou conservation program - Caribou Forever -	this program raises awareness of our great herds of caribou, sets a higher value for the herds and ensures they are sustainable	outside WRRB mandate
2	request support for community health and social programs	replacement programs with positive community values will minimize social impacts of harvest restrictions	Government responsibility
3	request INAC submit comments that outline how they have protected the rights of the signatories of Treaty 8 with a submission date prior to the Board's decision	INAC is supposed to protect Treaty Rights; fiduciary responsibility with First Nations, should be ensuring that all other management options have been tried prior to limiting Dene harvest	outside WRRB mandate
4	support the development of a "Barren Ground caribou Database" which will combine all relevant sources of caribou information and be operated independently of government	all sources of information are not acknowledged and used nor is there consensus on interpretation	not addressed
5	establish a safety net such as inter-jurisdictional agreements to ensure the adequacy of people's time and funding commitments over the short and longer-term	this will support a detailed implementation plan	Sec. 19
6	there should be a national review of the issues concerning the creation of the Ahiak herd by the Auditor General or other significant authority who is accountable to the Canadian public	this issue was not dealt with in the ARC review of ENR caribou management	not addressed

	Recommendation	Rationale	WRRB response
Outfitter Industry			
	Recommendation	**Rationale**	**WRRB response**
1	support a viable outfitter industry	based on personal observations over 40 years, caribou numbers are not down	Sec. 9
2	Grandfather current licenses	barren ground hunting provides $4 million to NWT economy	Sec.9.3
3	consider the social and economic viability of the NWT; do socio-economic assessment of measures	sport hunting contributes significantly to attracting and retaining workers; outfitter industry has significant contribution to economy (Outfitting brings in 24 million dollar a year industry in the north), businesses and to First Nations through supply of meat and employment.	Outside WRRB mandate
4	detailed analysis of product diversification options for existing caribou outfitters and available financial assistance to develop/market products	outfitters have spent decades developing their product and building their client base - neither of which can be easily replaced; demise of outfitter business will have financial implications for YK and NWT business and loss of expertise in tourism	Outside WRRB mandate
5	GNWT should develop a report outlining immediate and future impacts caribou management will have on herds, hunters, residents, outfitters, business/mining industry	sport hunting contributes significantly to attracting and retaining workers	Government responsibility
6	consider limited commercial, outfitter hunt after very thorough consultation with aboriginal residents	steps need to be taken, urgently and firmly to enable the herd to recover; priority of harvest in Tlicho Agreement does not mean exclusivity	Sec.9.3
7	keep outfitter tags at the current level	provides a traditional way of life for a number of aboriginal guides, contributes meat to communities and guides the development of ethical hunting practices; suspending caribou tags to outfitters is not biologically justified; the number of outfitter tags has not impact on the herd	Sec. 9.3
8	compensation for the 2010 season	we were led to believe in 2008 that there would be no further restrictions to outfitter tags; without compensation cannot afford to go through the years needed to build another business	Government responsibility
9	until more data are available encourage outfitter to sell single tag hunts until population has stabilized	successfully switched to single tag hunts a few years ago	Sec. 9.3

	Recommendation	Rationale	WRRB response
10	eliminate outfitted harvest	represent the appropriate first measures towards conservation; there have been many changes on the Bathurst range and caribou have been declining; government has continued to allow non-aboriginal harvesting - in conflict with the obligation to give priority allocation to aboriginal rights	Sec. 9.3

Predators

	Recommendation	Rationale	WRRB response
1	need a better index for monitoring wolf abundance	there was no trend apparent in early pup survival in ENRs current dataset; it is unclear how den occupancy, number of adults and pup survival index wolf abundance	Sec. 16
2	manage predators (wolf and bears)	predators take the largest share of caribou; experience elsewhere shows success of predator management in concert with harvest restrictions	Sec. 16
3	complete research examining wolf and grizzly bear predation on caribou herd	this is mentioned in the 2004 Bathurst Caribou Management Plan and in ENR's 2006 proposal to the WRRB	Sec. 16

Research

	Recommendation	Rationale	WRRB response
1	data should be reviewed with independent biologists looking at the entire traditional Bathurst calving ground	we need to work together with outside assistance to help interpret and understand the data ; there is incredible amount of doubt that the Bathurst herd has dropped to 30, 000; some members believe that the decline stated by ENR is not accurate	Government responsibility
3	consider expanding and properly funding research through joint ventures with independent, academic, research organizations	shouldn't be cutting government expenditures on caribou research at this time; researchers should focus on causes of the decline; needed to gather accurate data to help gauge the current health and numbers of the herd;	Government responsibility
4	set out requirements to remedy the data deficient nature facing the Ahiak herd.	This will help ENR begin to target the research required to ensure that the herd will have an approporiteate level of data available when future management planning commences	Sec. 12
5	stakeholders have timely and equitable access to data	sharing of information including data management are issues yet to be resolved or even acknowledged	Sec. 12

	Recommendation	Rationale	WRRB response
6	harvest should include maximum scientific sampling	none given	Sec. 12
7	more TK research is required	documenting the past with elders	Appendix F
8	peer review of all data analysis		Sec. 14
9	immedicate reporting of results		Sec. 12

Resident harvest

	Recommendation	Rationale	WRRB response
1	eliminate resident harvest	have seen the herd decline based on personal experience; resident harvest is a privilege; represent the appropriate first measures towards conservation	Sec. 9.4
2	If a TAH is set allocate a portion of the harvest to residents	priority of harvest in Tlicho Agreement does not mean exclusivity	Sec. 9.4
3	when the herd can sustain an increased harvest a TAH of 1 caribou per resident could be reintroduced	steps need to be taken, urgently and firmly to enable the herd to recover	Sec. 9.4
4	reinstate resident harvest	there is reasonable doubt in the science and conclusions presented by ENR; the number of bulls taken has no impact on future herd size	Sec. 9.4

APPENDIX E ***Revised Joint Proposal on Caribou Management Actions in Wek'èezhìi*, May 31, 2010**

Northwest Territories Environment and Natural Resources

MAY 3 1 2010

Mr. Grant Pryznyk
Interim Chair
Wek'èezhìi Renewable Resources Board
Yellowknife Office
102A - 4504 49TH Ave.
Yellowknife, NT X1A 1A7

Dear Mr. Pryznyk:

WRRB Public Hearings Adjournment - Revised
Joint Proposal on Caribou Management Actions in the Wek'èezhìi

The Tłı̨chǫ Government and the Department of Environment and Natural Resources (ENR) would like to thank the Wek'èezhìi Renewable Resources Board (WRRB) for the opportunity provided at the March 22-26, 2010 public hearing to revise the Bathurst caribou management joint proposal.

Please find attached the:

- *Revised Joint Proposal on Caribou Management Actions in the Wek'èezhìi*; Tłı̨chǫ Government, Department of Environment and Natural Resources, May 31, 2010.

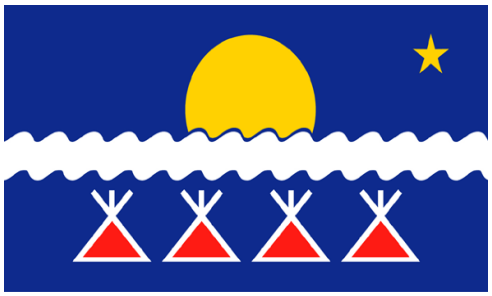
If you have any additional questions regarding this information please contact Mr. Jason McNeill, Senior Policy Advisor, Aboriginal Relations, ENR at (867) 920-3298 or Mr. Eddie Erasmus, Lands Protection Director, Tłı̨chǫ Government at (867) 392-6381 (ext. 300).

Sincerely,

Gary A. Bohnet
Deputy Minister

Grand Chief Joe Rabesca
Tłı̨chǫ Government

Attachment



REVISED JOINT PROPOSAL ON CARIBOU MANAGEMENT ACTIONS IN WEK'ÈEZHÌI

Submitted to:

Wek'èezhìi Renewable Resource Board

Submitted by:

Tłı̨chǫ Government

Behchokǫ̀, NT.

And

Department of Environment and Natural Resources,

Government of the Northwest Territories

Yellowknife, NT.

31 May 2010

EXECUTIVE SUMMARY

1. A population survey in 2009 of the Bathurst caribou herd provided an estimate of 31,900 ± 5,300 caribou, and showed that the herd's decline had accelerated after 2006 when it still numbered over 100,000. This accelerated decline has been the reason for developing co-management actions to halt the decline and give the herd an opportunity to recover.

2. In July 2009 the Wek'èezhìi Renewable Resources Board (WRRB) asked the Tłı̨chǫ Government (TG) and the Department of Environment and Natural Resources, Government of the Northwest Territories (ENR-GNWT) to develop a joint management proposal for the Bathurst caribou herd and the neighbouring Bluenose-East herd. A joint proposal was submitted to the WRRB in early November 2009. TG and ENR-GNWT agreed on a number of management and monitoring actions, but provided separate recommendations on Aboriginal harvest of Bathurst caribou.

3. In March 2010, the WRRB held a 5-day hearing on the joint management proposal, with presentations from TG, ENR-GNWT, intervenors with an interest in the Bathurst herd, and members of the public. On the last day of the hearing the WRRB granted an adjournment of the hearing requested by the TG (with ENR-GNWT support), to enable the two parties to resume collaborative work on the management proposal, and specifically to seek agreement on the key issue of Aboriginal harvest of Bathurst and Bluenose-East caribou, and to consider other related issues. A revised proposal was requested by May 31, 2010. This document is the revised joint management proposal.

4. Although the main focus of the original and revised proposals remains on actions to stabilize declining caribou herds, TG and ENR-GNWT through their joint meetings reviewed and recognized the importance of the long-standing cultural and social relationship between caribou and Tłı̨chǫ and other northern Aboriginal peoples. Management of the Aboriginal harvest must happen in ways that re-build traditional respect for caribou, other wildlife, and the land itself, and in a manner that empowers Tłı̨chǫ communities to implement the Tłı̨chǫ Agreement through self-regulating and monitoring their collective hunting behaviour.

5. Overall, the approach in the revised proposal is to focus in the short-term (next two years) on reducing death rates (mortality) of Bathurst caribou by reducing the two factors that most directly affect caribou death rates: hunter harvest and wolf predation. TG and ENR-GNWT recognize that caribou numbers are also affected by several other factors (weather during all seasons, fire on the winter range, industrial development) and these are to be monitored generally in the short term and will need to be more fully considered in a longer-term planning context.

6. TG and ENR-GNWT have agreed that the annual harvest of Bathurst caribou inside and outside of Wek'èezhìi should be 300 caribou ± 10% in total from this herd, with at least 80% of this harvest being bulls. Allocation of this harvest will require further discussion between TG, ENR-GNWT, and other Aboriginal groups. This proposal does not preclude the right to harvest for other Aboriginal groups, and it does not diminish the GNWT's requirement to consult with other Aboriginal groups. The herd should be able to stabilize with this harvest if calf productivity stays high. The proposal is for a harvesting target rather than a Total Allowable Harvest, as this seems most appropriate in light of confidence levels for current herd population and harvest data, and as the means considered most supportive of innovative and effective implementation of proposed hunting targets. These proposed hunting targets are in the range of Aboriginal harvesting of the Bathurst herd during fall and winter hunting seasons in 2009-2010, although TG and ENR-GNWT recognize that this is a very substantial

reduction in harvest levels from previous years. Reducing harvest to this level will require temporary elimination of resident, non-resident, and commercial caribou harvest from the Bathurst herd.

7. For the Bluenose-East herd, an interim harvest management is recommended, with the expectation that ENR-GNWT will carry out caribou surveys in 2010 to provide an updated population estimate. Harvest management for this herd must involve Nunavut, Sahtu and Inuvialuit governments, boards and communities, and consideration of an on-going management planning process for the Bluenose-West, Cape Bathurst and Bluenose-East herds. As an interim recommendation, TG and ENR-GNWT propose that total harvest of this herd should target $\leq$ 4% (1920 caribou) of an estimated herd size of ca. 48,000, which would be the herd's size if its annual rate of decline from 2000 to 2006 (7.5%) had continued to 2010. The harvest should also consist of at least 80% bulls. This would amount to about a 45% reduction from the estimated 2009-2010 harvest of this herd (ca. 3500, with about 2/3 of the harvest being cows).

8. Although the Ahiak herd occurs rarely in Wek'èezhìi, ENR-GNWT's reconnaissance surveys on the Ahiak calving ground show a decline of 60% in numbers of cows 2006-2009. There is limited evidence that some cows from the Beverly herd now share ranges with Ahiak caribou, and numbers of caribou calving on the Beverly calving ground have dropped to very low levels. TG and ENR-GNWT propose that NWT communities respect recommendations from the Beverly and Qamanirjuaq Caribou Management Board aimed at reducing Ahiak/Beverly caribou harvest and shifting that harvest to at least 80% bulls. NWT communities should not replace harvest of Bathurst caribou by increased harvest of Ahiak and/or Beverly caribou.

9. In addition to these recommendations on caribou harvest, TG and ENR-GNWT are proposing one additional management action designed to reduce caribou mortality: increased harvest of wolves by hunters and trappers in the Bathurst range. This action is proposed in recognition of the herd's very rapid decline from 2006 to 2009, as a further way to reduce caribou death rates and increase the likelihood for the herd to stabilize and recover.

10. TG and ENR-GNWT took the opportunity in developing a revised proposal to review and revise other management aspects that would be needed to effectively implement caribou management. In particular, managing the caribou harvest has to be done in ways that will be acceptable to Tłı̨chǫ and other Aboriginal elders, hunters, and communities. Resumption of past practices of shifting to other country foods like fish, moose and muskrats would be consistent with past times of caribou scarcity. The revised proposal contains recommendations to maintain or increase access to wood bison as an alternative meat source, and to increase support for fish camps.

11. Effective implementation of the management proposed will require an increased capacity on the part of TG to fully participate in monitoring and management of caribou. Implementation should be built around methods that will promote community ownership of the programs; one example would be Community Caribou Committees in each Tłı̨chǫ community that would meet regularly to review the most recent caribou information and be part of decision-making in their communities. TG and ENR-GNWT suggest a number of ways that could be used to implement these management proposals, while recognizing that a detailed implementation plan will require further discussion and may need to incorporate WRRB's recommendations.

12. Monitoring actions listed in the original joint management proposal were reviewed and incorporated into an adaptive management cycle that would include periodic review through the year of the most recent information, with the opportunity to re-consider management actions. Monitoring

caribou harvest would be part of this cycle, which would also include results of caribou surveys, wolf harvest efforts, and information gathered by community monitors on caribou condition and environmental trends. As a result, this proposal is designed to begin a much more collaborative and adaptive co-management system than existed previously, which the parties believe will be more effective for assessing herd population and health, gathering reliable harvesting data, and enlisting Aboriginal harvesters and communities in effective implementation.

13. Although the primary focus in this proposal is on the short-term future and stabilization of the Bathurst herd, TG and ENR-GNWT recognize the need for long-term management plans for each of the three herds (Bathurst, Bluenose-East and Ahiak/Beverly) where harvest, habitat, and other factors affecting barren-ground caribou herds are considered carefully.

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1.0 THE CARIBOU ISSUE, PREVIOUS PROPOSAL AND REVISED APPROACH

The Bathurst caribou herd declined rapidly between 2006 and 2009 from over 100,000 to about 32,000. The TG and Environment and Natural Resources, Government of the Northwest Territories (ENR-GNWT) submitted a joint proposal on caribou management to the Wek'èezhìi Renewable Resources Board (WRRB) in early November 2009. Management actions were proposed primarily for the Bathurst herd, but consideration was also given to its western and eastern neighbours, the Bluenose-East and Ahiak herds. TG and ENR-GNWT agreed on several management actions but were not able to agree on management of the Aboriginal harvest in Wek'èezhìi.

The WRRB held a public hearing in late March 2010 to review the proposal, and related reports and materials. Presentations were given by TG, ENR-GNWT, intervenors with an interest in Bathurst caribou, and the general public. On the last day of the hearing, TG with the support of ENR-GNWT requested an adjournment of the hearing to allow the two governments to complete work on the joint proposal, and specifically to seek agreement on management of the Aboriginal harvest of caribou in Wek'èezhìi. WRRB granted an adjournment, with a requirement for the revised proposal to be submitted by May 31, 2010. WRRB also requested a progress report on April 30, 2010, which was submitted by TG and ENR-GNWT and accepted by WRRB as sufficient evidence of progress.

Management actions 1, 2 and 3 in the original proposal were confirmed – cease all hunting by residents, guide/outfitter hunts for non-residents and commercial harvesters. On the key issue of management of the Aboriginal harvest of Bathurst caribou, TG and ENR-GNWT came to agreement, and the shared recommendations on harvest of the Bathurst, Bluenose-East and Ahiak herds are in section 5 (Recommended Management Actions). These recommendations refer to actions 4 and 5 in the original proposal. Submissions made at the March 2010 WRRB hearing were considered by TG and ENR-GNWT in developing the revised recommendations. There were also several monitoring actions in the original proposal. These were reviewed and rearranged as section 6, and are now presented as part of an annual cycle of monitoring, information review, and adaptive management.

In addition to these updates on key sections of the original proposal, TG and ENR-GNWT considered other management aspects that will be needed to effectively implement the management proposed. Section 4 provides a brief overview of how TG and ENR-GNWT worked together on the revised proposal. Section 7 includes a number of approaches that were discussed as methods of implementing harvest regulation; the two parties recognize that further discussion of these methods will be needed and that implementation will depend in part on WRRB recommendations. Section 8 suggests ways to improve community engagement in caribou management, and to increase TG capacity for full participation. Section 9 identifies the need for longer-term planning for the three caribou herds, and the need to protect habitat and manage development in caribou ranges. Section 10 describes actions to increase access to bison as an alternative country food, with some comments on monitoring and management of other potential country food alternatives.

Above all, TG and ENR-GNWT recognize the long-standing cultural and social relationship between caribou and Tłı̨chǫ and other northern Aboriginal peoples. Throughout the proposal we have sought to emphasize the need for a respectful relationship between people and caribou.

Technical details on population modeling, surveys and other research were kept to a minimum in this proposal. Readers seeking greater detail should refer to the Bathurst technical report, reports on population modeling, and other reports and submissions on the WRRB public registry.

2.0 BACKGROUND AND RATIONALE

The status of barren-ground caribou herds with seasonal ranges that occur within Wek'èezhìi (Tłı̨chǫ Land Claim area) is briefly reviewed below (Figure 1). Barren-ground caribou herds are known to vary widely in numbers over time; all herds monitored by ENR-GNWT declined in the early 2000s, and most caribou and reindeer populations globally were in decline in 2009.

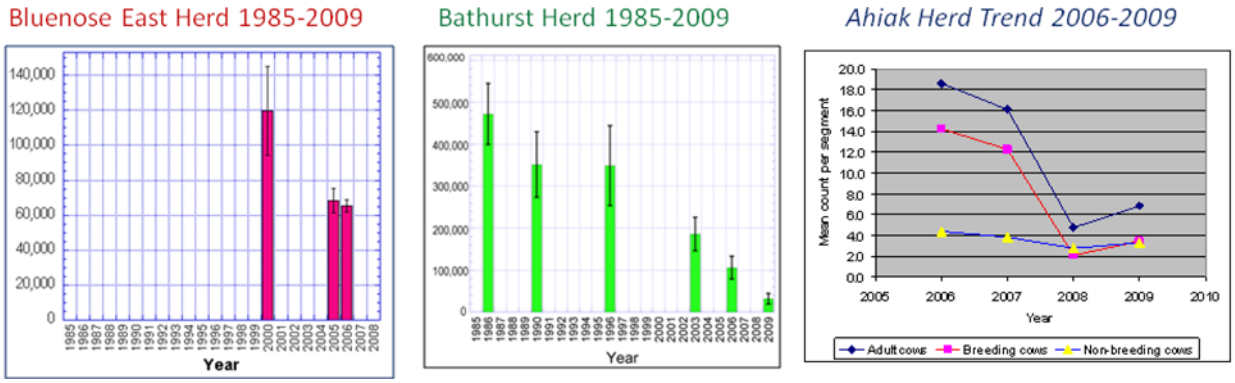

Figure 1. Population trend in the Bluenose-East, Bathurst and Ahiak caribou herds.

Bathurst Herd

In June 2009, ENR-GNWT staff conducted a calving ground photographic survey of cows on the Bathurst herd's calving ground, using the same methods that have been used since the 1980s. In 2009, the overall herd size was estimated at 31,900 ± 5,300, compared to more than 100,000 in 2006. The accelerated decline established by the survey results clearly showed that management actions would have to be taken immediately to stabilize the rapidly declining herd and work towards its recovery. The next Bathurst calving ground photographic survey is scheduled for June 2012.

Bluenose-East Herd

Reliable population estimates for the Bluenose-East herd are not available prior to 2000, when this herd was estimated at 120,000. Post-calving photographic surveys were conducted in 2005 and 2006 and results revealed that this herd had declined substantially since 2000. In 2006, the herd estimate was estimated at 66,700.

A photo census was attempted in July of 2009 on the post-calving range of the Bluenose-East herd in order to obtain a new population estimate. The survey was unsuccessful due to cool wet weather, which meant that the caribou did not aggregate tightly enough for photos. Despite the failure to conduct the photo census in 2009, biologists reported seeing fewer animals during post-calving than observed in 2006. This is a concern and suggests caution in evaluating management options. ENR-GNWT will be conducting a June 2010 calving photographic survey and a July 2010 post-calving photographic survey for the Bluenose-East herd, with support and participation of the GN (Government of Nunavut). This should ensure that a new population estimate is available this summer. If both surveys are successful, a comparison of the two methods will also be possible.

Ahiak Herd

For the Ahiak herd, longer-term information such as population size and trend and seasonal range use and movements has been limited. Neither a calving ground nor post-calving photographic survey has been completed for the Ahiak herd, although the population was estimated at approximately

200,000 animals in 1996 based on a crude extrapolation of a systematic reconnaissance survey on the calving grounds. Much of the detailed radio-collar information and surveys of the calving grounds in the Queen Maud Gulf region is from 2006 to present.

From 2006 to 2009, ENR-GNWT completed systematic reconnaissance surveys of the annual calving ground of the Ahiak herd. Preliminary trend analysis of the average number of cows seen per survey transect segment suggests that the numbers of caribou cows on the Ahiak calving ground in 2009 had declined by ca. 60% compared to data from 2006. Although knowledge of these caribou is improving over time, the observed decline is a real issue for management and conservation of this herd. In addition, limited radio-collar information from 2006 to 2010 indicates that some cows that formerly calved on the Beverly calving ground switched to the Ahiak calving ground during these years. Outside of the calving period, these radio-collared Beverly cows appeared to share ranges entirely with cows calving on the Ahiak calving ground. Numbers of cows calving on the traditional Beverly calving ground in 2007, 2008 and 2009 were extremely low. Exactly what happened to the Beverly herd may never be fully known, and interpretations of the limited data vary. Nevertheless, conservation of the few cows still using the Beverly calving ground is now linked to conservation of the Ahiak herd, thus harvest and management of the Ahiak herd must be mindful of the exceptionally low numbers of Beverly caribou.

ENR-GNWT will be conducting a systematic reconnaissance survey of the Ahiak and Beverly calving grounds in June 2010, in collaboration with the Government of Nunavut (GN). The GN is planning a calving ground photographic survey of the Ahiak herd and systematic survey of the Beverly herd calving ground for June of 2011 with collaboration of ENR-GNWT.

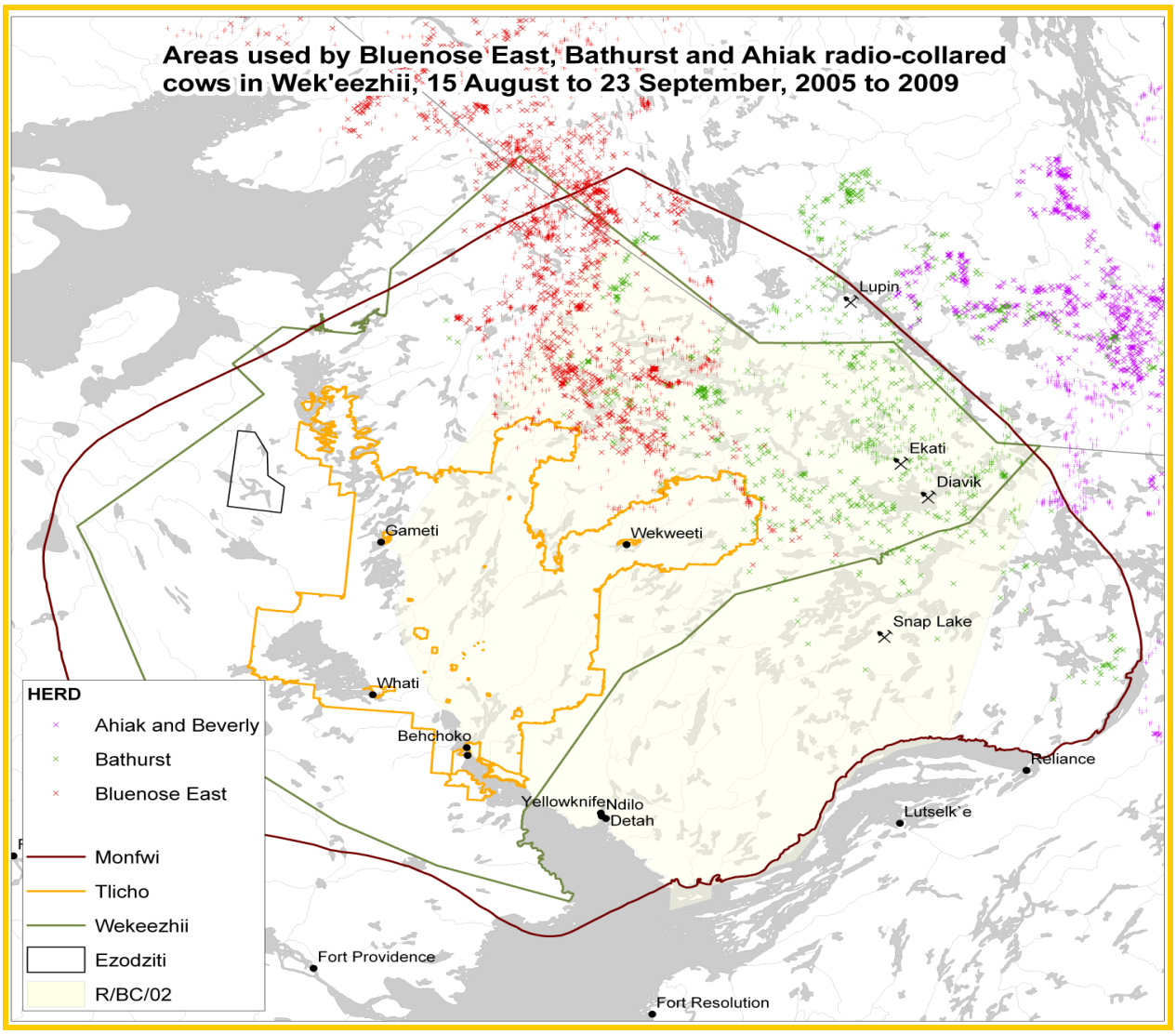

Figure 2. Areas used in the fall (Aug. 15 to Sept. 23) by radio-collared Bluenose-East (red), Bathurst (green) and Ahiak (purple) caribou cows from 2005 to 2009. Mapped by A. D'Hont, ENR-GNWT. The numbers of locations do not reflect herd size, rather they reflect numbers of radio-collars on the 3 herds (most on Bluenose-East caribou, least on Bathurst caribou).

Figure 2 shows the areas used in recent years by caribou from the three neighbouring herds during the fall hunting season (August to September), based on radio-collar locations of cows over the last 5 years (2005-2009). Ahiak caribou have rarely occurred in Wek'èezhìi during this period, but there has been extensive use of northern Wek'èezhìi by Bluenose-East and Bathurst caribou in the fall, with some overlap between the two herds.

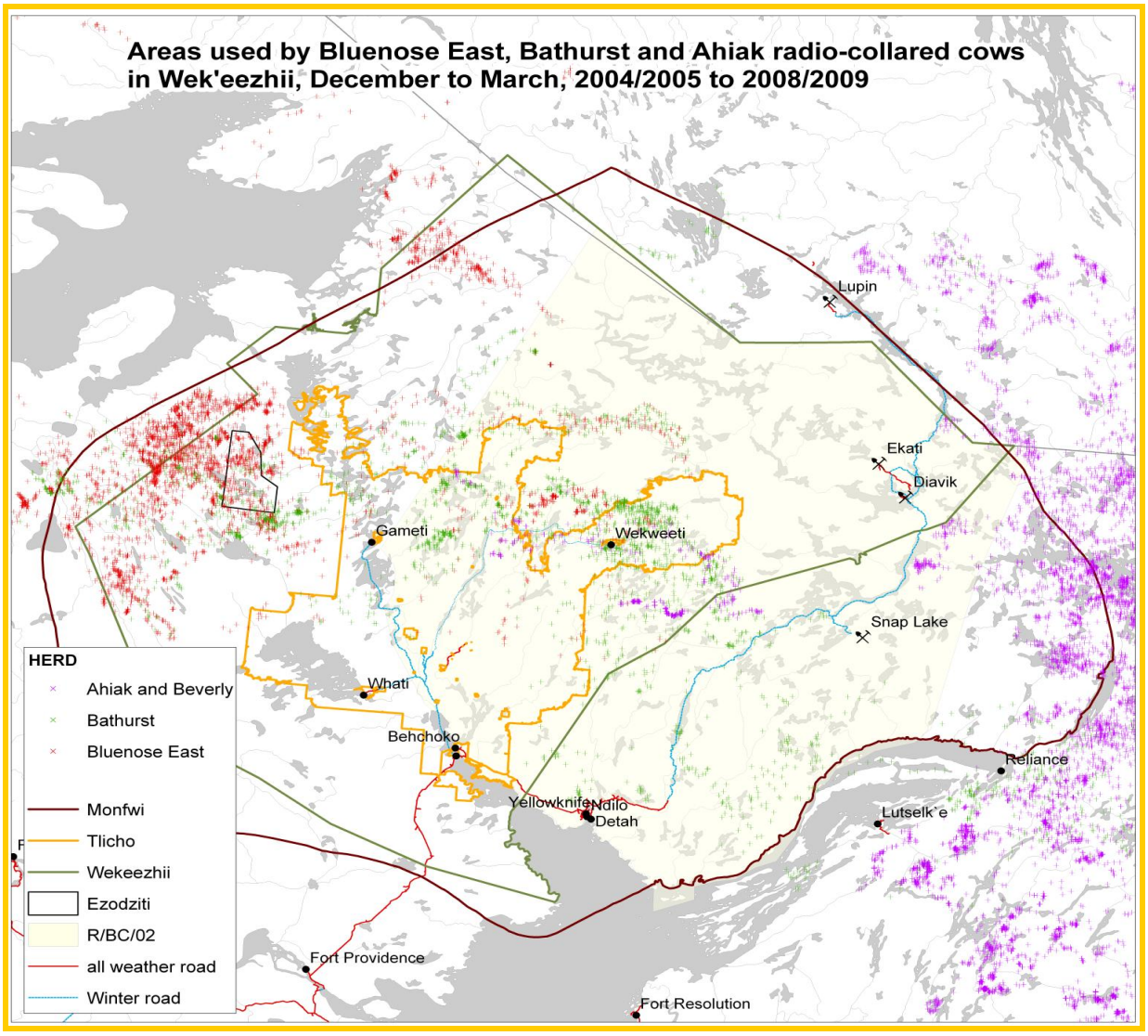

Figure 3. Areas used in the winter (December to March) by radio-collared Bluenose-East (red), Bathurst (green) and Ahiak (purple) caribou cows from 2004/2005 to 2008/2009. Mapped by A. D'Hont, ENR-GNWT. The numbers of locations do not reflect herd size, rather they reflect numbers of radio-collars on the 3 herds (most on Bluenose-East caribou, least on Bathurst caribou).

Figure 3 shows the areas used in recent years by caribou from the three neighbouring herds during the winter hunting season (December to March), based on radio-collar locations of cows over the last 5 winters (2004/2005 to 2008/2009). Ahiak caribou have rarely occurred in Wek'èezhìi during this period. There has been extensive use of northeastern Wek'èezhìi by Bluenose-East caribou. Central Wek'èezhìi has had primarily Bathurst caribou, with some overlap between the two herds. This spatial information indicates that most of the winter harvest in Wek'èezhìi in recent winters was from the Bathurst herd. Hunting Bluenose-East caribou would have required lengthier snowmachine travel (e.g. to Hottah Lake) due to the lack of winter roads north of Gamètì and Wekweètì.

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2.1 Recent Management Issues and Actions

- *Joint management proposal to WRRB (November 2009)*

In 2009, the WRRB requested that TG and GNWT ENR-GNWT work together and develop a joint management proposal to address the rapid decline of the Bathurst caribou herd, and submit a proposal by October 31, 2009. Following this request, the Tłı̨chǫ Government formed a caribou working group to meet with ENR-GNWT to develop a document on recovery options for the Bathurst herd and neighboring herds. One of the requirements of the Tłı̨chǫ process was to hold a regional workshop in Gamètì to get input from elders on the draft joint proposal prior to the Tłı̨chǫ assembly to make a final decision.

Representatives of the two governments met periodically through the fall to draft the proposal. On November 5, 2009, TG and ENR-GNWT submitted a joint proposal on caribou management and monitoring actions within Wek'èezhìi to the WRRB. Five main management actions were proposed for the Bathurst herd with further recommendations for limiting harvest of caribou from its western and eastern neighbours, the Bluenose-East and Ahiak herds (Table 1).

The two governments agreed on a number of management actions, including elimination of all commercial harvesting, non-resident (outfitted hunts) and resident hunting, and mandatory harvest reporting. However, there was no agreement between TG and ENR-GNWT on proposed management of Aboriginal harvest. ENR-GNWT recommended that all hunting of female caribou in the Bathurst herd be eliminated, and a limited bull-only hunt (Table 1). TG recommended no restriction on Aboriginal cow or bull harvest. The proposal thus had separate recommendations from the two governments, for cow and bull harvest by Aboriginal hunters.

Table 1. Summary of main management actions from November 2009 proposal

Proposed Management Action	Recommended Action for Bathurst Herd in Wek'èezhìi	Recommended Actions for Adjacent Herds (Bluenose-East and Ahiak)
1	Eliminate all commercial meat tags	
2	Eliminate all tags for outfitting	
3	Eliminate all resident hunter harvest	
4	ENR-GNWT Recommendation Eliminate all harvest (including Aboriginal hunting) of Bathurst caribou females Tłı̨chǫ Government Recommendation No restriction on female harvest	Limited female harvest may be possible for experienced hunters on the Bluenose East and Ahiak herds and assisted through a joint partnership with ENR/ITI. Numbers harvested to be discussed further and subject to approval by SRRB, BQCMB and Nunavut for recovery actions outside Wek'èezhìi.
5	ENR-GNWT Recommendation Allow a limited bull-only harvest for Aboriginal hunters Tłı̨chǫ Government Recommendation No restriction on male harvest	Bull harvest only on all herds for Aboriginal harvesters. Recommendation is to harvest Bluenose East and Ahiak caribou males in the fall and subject to approval by SRRB, BQCMB and Nunavut for recovery actions outside Wek'èezhìi.

- *No hunting ban in Bathurst winter range (January 2010)*

On December 17, 2009, the GNWT ENR-GNWT Minister announced interim emergency measures to protect the Bathurst herd. This included elimination of resident and commercial harvesting and establishment of a no-hunting zone based on the main Bathurst caribou winter range. On January 1, 2010 the new measures were implemented unilaterally by ENR-GNWT, to provide an interim period of protection from hunter harvest while a co-management solution to harvest management was developed. The ban affected all caribou hunters, including the Tłı̨chǫ, Yellowknives Dene, NWT Metis Nation, residents and outfitters. This action was outside the scope of the joint management proposal to the WRRB and is not considered further in this proposal. The ban is expected to remain in place temporarily, until the WRRB makes recommendations on harvest management for the Bathurst herd, with a view to replacing the interim emergency measures by jointly agreed measures that would be implemented through the proposed management plan.

- *WRRB hearing (22-26 March 2010) and adjournment request*

In March 2010 the WRRB held a public hearing in Behchokö to review the joint management proposal from TG and ENR-GNWT, and to consider all available technical information and Traditional Knowledge. Interveners and the general public had opportunities to comment on the available information and joint management proposal. On the last day of the 5-day hearing, the Tłı̨chǫ Government (with ENR-GNWT support) requested an adjournment in order to resume working together to resolve differences that existed in the original proposal, and to specifically address proposed management actions 4 and 5 from the November 2009 proposal. The request for adjournment was granted by the WRRB under the condition that the two governments would provide an interim progress report by April 30, 2010 and a completed proposal by May 31, 2010. An interim progress report was provided to the WRRB by TG and ENR-GNWT, and accepted as adequate proof of progress.

2.2 Ekwo (caribou) and Tłı̨chǫ culture, language and way of life

The inter-dependence of the Tłı̨chǫ people with Ekwo could be considered the fundamental pillar of Tłı̨chǫ culture (see Appendix 1). The Tłı̨chǫ and other Aboriginal people in the North have depended upon caribou for their physical, mental and spiritual needs since time immemorial. Since the time of Yamozah, the Tłı̨chǫ have lived in co-existence with the caribou, with laws of respect and appreciation defining the relationship between the Tłı̨chǫ and the caribou. The Tłı̨chǫ culture and way of life is based on the caribou and its migration paths. The caribou provided shelter, clothing, bedding and food and are the basis of Tłı̨chǫ traditional knowledge and legends, traditions and practices. Tłı̨chǫ traditional trails follow the paths of the caribou towards the barren-lands with camp-sites, grave-sites and places of spiritual significance all described by place-names along the way. These place-names are dependent upon the soil and landscape, determining the harvest methods and telling the story about the place.

The relationship between the Tłı̨chǫ and caribou has changed over time, with the outside influences of the global economy and trade leading to altered ways of valuing this sacred animal. This has led to a change in Tłı̨chǫ and outsider dependence on the animal. As early as 1700 the European desire for beaver pelt hats and other furs brought trappers and traders to the North, increasing the need for caribou as a trade item. This was the beginning of the change from hunting for subsistence to hunting for commercial trade, thereby altering the relationship between man and animal.

Following the introduction of the snowmobile in the 1970's, access to the seasonal range of Bathurst caribou began to expand. In 1972, the modern airplane was introduced to the community hunt as was the community freezer. Caribou were no longer only available for certain periods in the season, but it became available almost all year round whether the caribou were close to communities or not. The need to depend on other species at periods of time throughout the year now became a choice, not a necessity.

The last major change in this relationship has occurred in the last 15 years, where we have seen diamond mines, ice roads, all season roads, big game outfitting, resident and commercial hunting, high powered rifles, snowmachines and four-wheel drive trucks and trailers come onto the scene. This has altered the relationship between man and caribou and increased the pressures and stress on the animals, potentially more than in the last 150 years together.

The relationship between Tłı̨chǫ and caribou is maintained by traditional laws governing human behaviour towards caribou. When these laws are not respected, it is believed that caribou populations will become smaller and their migration patterns will change. There have been times of scarcity and times of abundance, which have been influenced by both natural cycles of wildlife abundance and human influence. The Elders have always believed that when the caribou became scarce they would go away to be left alone - to recover and replenish themselves. They would then come back to offer themselves to the Tłı̨chǫ - there was a mutual respect between man and animal.

There have been previous times of caribou scarcity. The most recent Tłı̨chǫ memory of low caribou numbers was in the 1960s. At this time, the community of Wekweètì had to be evacuated to

Behchokö and Gamètì, because of a scarcity of caribou and other game. This move led to significant changes in the political and social fabric of Tłı̨chǫ society.

A recovery and management plan for the Bathurst caribou cannot focus only on the numbers (i.e., estimates of population parameters and vital rates) and wildlife ecology from a scientific perspective. The relationship between humans and caribou is complex and dynamic. In order to address the decline in the Bathurst herd, this broader dynamic system must be taken into account, with an appreciation that restrictions of harvest are only a small part of the long term sustainable approach to this issue. By looking at the system as a whole and its interconnectedness (Figure 4), the solutions will be found in many different places, places that science alone cannot define or resolve.

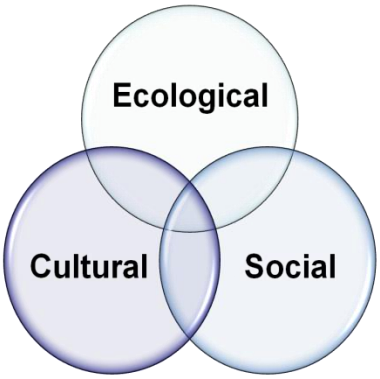


Figure 4: Tłı̨chǫ Perspective on Ekwo Management

Tłı̨chǫ elders have always taught that becoming and being knowledgeable is the way that respect is shown to caribou. They believe that a person becomes knowledgeable by listening, watching and experiencing, and that there is a relationship between one's personal knowledge and ability to respect the land. As this knowledge is lost, the laws are no longer abided by and respect for the caribou is diminished. With modernization, changing lifestyles and expectations, this knowledge gap has increased, causing both the Tłı̨chǫ and other northerners to lose knowledge and respect for caribou.

To re-establish the connection between people and the caribou, the Tłı̨chǫ must revitalize the traditional ways in which they relate to the caribou - through cultural hunts and relearning of Tłı̨chǫ laws that guide their behaviour towards this animal. Through cultural hunts following their whaèhdôõ æetô (ancestral trails) they will have an opportunity to listen, observe and monitor the land; to learn the nàowo (laws) and stories, and they will have an opportunity to learn the place-names and ways of their ancestors. They will begin hunting by canoe and returning again to the sacred area of Mesa Lake, where peace was made between Edzo and Akaitcho. They will reemphasize and support the hunting and trapping of alternate species when caribou are scarce.

This proposal is not only about recovering the Bathurst caribou herd. It is equally about the recovery of Tłı̨chǫ language, culture and way of life that are dependent upon the Bathurst caribou.

3.0 DEVELOPING A SHARED PERSPECTIVE

The Tłı̨chǫ Government and the Government of the Northwest Territories worked together in April and May 2010 to revise and complete this Joint Caribou Management Proposal.

Through their collaborative work, the TG and ENR-GNWT have come to a shared consensus that Bathurst caribou are in real and serious decline and that decisive management actions are imperative to conserve and recover the herd. It was understood that Tłı̨chǫ elders recognize that caribou cycle naturally and that the current decline was not caused solely by hunting, but when caribou numbers become this low, hunting and predation affect the ability of caribou to recover. If the status quo levels of hunting were allowed to continue, the Bathurst caribou herd might not be able to recover. All data analyses and modeling completed to date indicate that a harvest of the size estimated for 2008-2009 for the Bathurst herd (3000-5000 cows and 1000-2000 bulls) can only lead to further rapid decline, regardless of calf productivity. TG and ENR-GNWT recognize that the Bathurst herd is shared with communities, governments and hunters outside Wek'èezhìi, whose interests must also be considered and respected.

Although the focus of the two governments has been on management actions within Wek'èezhìi that are required for recovery of the Bathurst herd, there is also a shared understanding that management actions are also required for the Bluenose-East and Ahiak herds, which are both in decline. Both governments recognize that harvest pressure should not be transferred from the Bathurst herd to neighbouring herds, because that would potentially contribute to further declines in those herds.

Although the WRRB specifically requested that the revised joint proposal focus on the harvest management actions within Wek'èezhìi that had not been agreed on in the original proposal, TG and ENR-GNWT took the opportunity to review all aspects of the proposal. In particular, there was a need to recognize the longstanding relationship of Tłı̨chǫ people with caribou and the fundamental importance of this relationship for developing and implementing meaningful management changes in the future. Based on their collaborative work over the past two months, the two governments agreed to the following three core themes and associated principles, which provide the foundation for developing the revised proposal and a shared commitment to working together to recover and conserve healthy caribou populations, and ensure that the relationship between caribou and people is resilient and continues to thrive in the future.

1) **Tłı̨chǫ language, culture and way of life:** Tłı̨chǫ culture is based upon a deep and respectful relationship with barren-ground caribou; therefore the population health, sustainability, and resilience of Bathurst caribou is profoundly important to Tłı̨chǫ (Appendix 1). A key principle that arises from this is that effective management and monitoring of caribou requires engagement, education, participation, and feedback from Tłı̨chǫ people, along with acknowledgement and use of Tłı̨chǫ knowledge and practices. In short, implementation of management actions for recovering caribou in Wek’èezhìi needs to be done in the broader context of strengthening Tłı̨chǫ culture, language and way of life. In addition, because of the fundamental importance of the relationship between people and caribou, the precautionary principle must guide management recommendations and decisions, as required by the Tłı̨chǫ Agreement, to prevent and avoid irreversible harm to caribou populations or habitats, especially in circumstances where there is uncertainty in knowledge. TG and ENR-GNWT recognize that other Aboriginal groups likewise have longstanding cultural and social linkages to caribou over countless generations.

2) **Adaptive co-management:** Adaptive co-management is an approach to resource and wildlife management that combines two key aspects – adaptive management and co-management. Adaptive management refers to the capability to learn and adapt to changing circumstances and uncertain conditions. Co-management refers to sharing of power and responsibility between governments, resource users and resource-based communities. Adaptive co-management requires commitment to the principles of "shared decision-making" and "learning by doing". In the context of this joint caribou management proposal, adaptive co-management also reflects a commitment to a) implement the spirit and intent of the Tłı̨chǫ Agreement, and b) develop efficient and sustainable models of governance to ensure collaboration and decision making that involves the TG and ENR-GNWT, as well as Tłı̨chǫ community governments and Tłı̨chǫ citizens (i.e., youth, hunters, and elders). In this context, implementation of management recommendations will require development of increased capacity for the TG, in order for Tłı̨chǫ people to participate fully in monitoring and co-management of caribou.

3) **Managing barren-ground caribou as populations or herds**: Within North America, migratory barren-ground caribou herds are defined and managed as distinct herds or populations, because studies have shown that this is how they have adapted to the large landscapes they live in. Migratory herds are defined based on the strong instinct of caribou cows to return every spring to a traditional calving ground. Research shows that usually about 95% or more of pregnant cows return annually to the same traditional calving ground. Based upon this body of knowledge as well as comprehensive archaeological studies, the main factors that likely drive abundance of barren-ground caribou within defined populations are rates of birth and death. Research with many herds has shown that rates of immigration and emigration are relatively minor, and usually occur at low rates between neighbouring herds. Appendix 2 contains a brief summary on basic population ecology of barren-ground caribou. Since birth rates are not amenable to active management, the emphasis of wildlife managers is to evaluate and manage death rates of caribou, which are tied to hunting and natural predation. In simplest terms, most caribou that have died recently in the Bathurst herd were either killed by predators or by hunters, so reducing these death rates is most likely to have direct and positive effects on the herd's population trend.

4.0 GOALS AND OBJECTIVES

4.1 Scope and Time-frame

The management actions in this proposal are primarily directed at the next 2 years of caribou monitoring and management.

For the Bathurst herd, a population survey is planned for June 2012, just over 2 years from the date of this revised proposal (end of May 2010), and once the results are known, management actions will likely be re-visited and amended. Actions proposed here are aimed primarily at the next two years (June 2010-June 2012) in Wek'èezhìi.

For the Bluenose-East herd, recommendations in this proposal are on an interim basis for Wek'èezhìi and will need to be re-visited in late summer 2010 once an estimate of population size has been determined from calving-ground or post-calving photographic surveys - this will provide both population size and trend since 2006. As an interim recommendation, a precautionary conservative approach to harvest management is proposed. TG and ENR-GNWT support the on-going management planning for this herd and its western neighbours, the Bluenose West and Cape Bathurst herds. TG and ENR-GNWT recognize that this herd is shared with Nunavut, Sahtu and Inuvialuit governments, boards and communities.

The Ahiak herd scarcely occurs in Wek'èezhìi and harvest by Tłı̨chǫ hunters from this herd has likely been very limited. Recommendations in this proposal are precautionary and stem largely from the strong downward trend in numbers of caribou on the Ahiak annual calving ground. The focus is on supporting the Beverly and Qamanirjuaq Caribou Management Board`s (BQCMB) efforts to limit harvest of Ahiak/Beverly caribou and to promote bull harvest, and to ensuring that reduced harvest of Bathurst caribou does not translate into increased harvest of Ahiak/Beverly caribou by NWT communities.

For all three herds, TG and ENR-GNWT recognize the need for longer-term management planning that includes harvest management as well as management of habitat and industrial development, as described in section 9. An overall management planning process is in place for the Bluenose-East herd. TG and ENR-GNWT support longer-term co-management planning processes for the Bathurst and Ahiak/Beverly herds.

4.2 Goals

For the Bathurst herd, the short-term goal is to shift from a declining trend (2006-2009) to a stable trend from 2010 to 2012, by maximizing survival of cows and calves. TG and ENR-GNWT recognize that some factors affecting caribou numbers are not readily subject to management control. In the longer-term, the goal is to promote the herd's recovery to a size and trend where sustainable harvesting sufficient to meet all interests is again possible.

For the Bluenose-East herd, the goal in the short-term is to reduce harvest to a level that is unlikely to contribute to further decline in this herd. Once population size and trend are known, the goal could be revised to stabilizing the herd and promoting recovery in the longer-term.

For the Ahiak/Beverly herd, the goal short-term goal is to support the BQCMB's efforts to monitor and manage harvest (including a shift to at least 80% bulls) so as to minimize the contribution of harvest to a declining trend.

4.3 Objectives

For the Bathurst herd:
1. A stable trend in numbers of breeding cows on the calving grounds 2010-2012, based on annual reconnaissance surveys in 2010, 2011 and 2012, and a population photo-survey in 2012.
2. An average late winter (March-April) calf:cow ratio between 2010 and 2012 of at least 40 calves: 100 cows[1].
3. A total hunter harvest target of 300 ± 10% in any year, with at least 80% bulls, for the entire herd.[2]
4. A total wolf kill of 80-100/year in the Bathurst range.

For the Bluenose-East herd:
1. A stable trend in numbers of cows on the calving grounds, based on annual reconnaissance surveys in 2010, 2011, and 2012, and a population photo-survey in 2010 (and 2012).
2. An average late winter (March-April) calf:cow ratio between 2010 and 2012 of at least 30-40 calves: 100 cows, consistent with a stable herd.
3. A total hunter harvest of ca. 1900 caribou in any year, with at least 80% bulls (interim recommendation only; to be reviewed later in 2010).

Specific objectives are not detailed for the Ahiak herd as it scarcely occurs in Wek'èezhìi, but TG and ENR-GNWT support the BQCMB's efforts to reduce total harvest and promote at least 80% bull harvest.

[1] Late winter calf:cow ratios often show a saw-tooth pattern (higher one year, lower the next, then higher again), thus the objective is for an average calf:cow ratio over 3 years (2010, 2011, 2012).
[2] A target of 300 ± 10% is used here to indicate that a harvest slightly lower or higher than 300 is acceptable. Some emphasis in this proposal is placed on harvest monitoring and management that has widespread acceptance in the communities, which may result in a total harvest not meeting the target exactly.

5.0 RECOMMENDED MANAGEMENT ACTIONS

The revised joint proposal has maintained the original recommendations (November 2009) on proposed management actions 1 – 3, which include suspension of commercial, outfitter, and resident harvest (Table 2). These actions were reviewed. However, the new proposed harvest levels are well below past usage patterns for the Tłı̨chǫ and other Aboriginal hunters, who have priority for allocation under the Tłı̨chǫ Agreement. TG and ENR-GNWT also recognized that predator management (primarily wolves) should also be considered to increase survival of caribou cows, calves and bulls. As noted earlier, most Bathurst caribou in recent years were killed wither by hunters or by wolves, thus reducing those death rates is likely to have the most immediate and substantive effects on caribou population trend.

Refinements to management actions 4 and 5 in the Nov. 2009 proposal are described below. At this point, methods for implementing hunting management actions such as the use of hunting zones and seasons, use of tags, a no-hunting corridor on winter roads, use of check-stations, community-based monitoring and other mechanisms for implementing harvest targets, are still under discussion (see Section 7.0). It is anticipated that the Community Caribou Committees (described further on in this document) may also have a role in determining and implementing the most effective means for tracking and managing the caribou hunting from their communities. TG and ENR-GNWT also recognize that the WRRB may have recommendations for achieving targets for hunting. Additional work between TG and ENR-GNWT is recommended to develop the specific implementation plan for the WRRB's final recommendations on harvest management. Management actions in this proposal do not preclude the right to harvest for other Aboriginal groups, and it does not diminish the GNWT's requirement to consult with other Aboriginal groups. The interests of other interests, including Aboriginal governments, Nunavut and affected communities outside Wek'èezhìi, continue to be recognized.

5.1 Bathurst Herd

With respect to the Bathurst herd, this revised proposal specifically expands on the following recommended management actions from the joint proposal submitted in early November 2009 to the WRRB:

- confirm acceptance of management actions 1, 2, and 3 (Appendix A of Nov 2009 proposal), which includes suspension of commercial, outfitter, and resident harvest; and
- revise management actions 4 and 5 (Appendix A of November 2009 proposal) to a recommendation for a total hunter harvest of 300 ± 10% caribou for the herd, with a minimum of 80% bulls.

Modeling summarized in Appendix 3 provides a rationale for the proposed hunter harvest. Even if all harvest is stopped, there is no guarantee that the Bathurst herd will stabilize and begin to grow. The overall picture for the world's caribou and reindeer is not promising; most populations are in decline. Modeling for the Bathurst herd suggests that harvest of more than about 500 caribou (all bulls or 80% bulls) is associated with a substantial risk of further slow decline under most levels of calf productivity. A harvest at this level would be sustainable if there is continued high calf productivity. In view of the herd's rapid decline from 2006 to 2009, the uncertainties around survey information and modeling results, and the overall trend for the world's caribou and reindeer, a limited harvest of 300 caribou ± 10%, 80% or all bulls, was considered an appropriate management option to help stabilize the herd.

With respect to the Bathurst herd, this revised proposal recommends one additional population management action:

- A targeted increase of wolf mortality using a phased approach that combines increased hunting and trapping effort and wolf removal programs. This recommendation expands on the actions identified in ENR-GNWT's presentation and the WRRB technical expert's review at the March 2010 public hearing. It is consistent with reducing total mortality of Bathurst caribou. The target is to increase wolf harvest in the Bathurst range twofold from about 40 to 80-100/year (Table 1).

TG and ENR-GNWT have refined proposed actions 4 and 5 from the November proposal, to recommend an annual harvest level within the range of 300 ± 10% caribou from the entire Bathurst herd with at least 80% bulls. It was recognized that the target of 300 ± 10% Bathurst caribou would need to be shared between the Tłı̨chǫ and other Aboriginal groups and that the broader issues of allocation inside and outside Wek'èezhìi would be subject to further consultations. The harvest level of 300 ± 10% Bathurst caribou was established as a balance between a) allowing for a limited subsistence hunt for Tłı̨chǫ communities, in particular for Wekweetì, which has very limited access to other caribou herds, and b) a need to seriously reduce the level of hunting of Bathurst caribou to increase adult survival (especially in cows), to halt the declining trend, and to allow for long-term recovery.

Among the Tłı̨chǫ communities, continued yet reduced hunting of Bathurst caribou by Wekweetì was considered an important priority both for basic needs of the community, to support the Tłı̨chǫ way of life, and to maintain and enhance a respectful relationship between people and caribou. Subject to discussion and confirmation from Tłı̨chǫ communities, it is suggested that the entire allocation of available Bathurst caribou to the Tłı̨chǫ be provided to Wekweetì, because the other Tłı̨chǫ communities are better able to access the Bluenose-East herd.

The addition of options to increase wolf harvest expands on ENR-GNWT's presentation at the WRRB hearing in March 2010, and on suggestions from intervenors. It is known from previous studies that wolves have the capacity to increase rapidly. Increasing the harvest of wolves for a few years will allow more calves, cows and bulls to survive and will not jeopardize the long term survival of wolves in the North Slave region. The joint proposal recommends that actions be taken over the next 2 years to substantially increase, i.e., double, the number of wolves taken and to maximize economic benefits to hunters and trappers, as summarized in Table 1.

There was discussion at joint Tłı̨chǫ and ENR-GNWT meetings on the role of grizzly bears and whether to reduce their numbers as part of increasing Bathurst caribou survival rates. Grizzly bears are known to kill some caribou calves on calving grounds, and to take calf and adult caribou opportunistically in the summer and fall. However, in view of the low reproductive rate and low density of grizzly bears, and their status as Special Concern by COSEWIC (Committee on the Status of Endangered Wildlife in Canada), no management actions for grizzly bears are recommended at this time.

Table 2. Summary of wolf management actions for May 2010 revised joint proposal

Wolf Management Action – in order of priority	**Mechanism and Authority**	**Assess effectiveness**
a) Provide incentives to trappers to increase harvest of wolf in early winter when pelts are prime. This group of harvesters traditionally hunt the majority of wolves.	In fall 2010, provide training to hunters in Gamètì and Wekweètì to set snares and handle wolf pelts (ENR-GNWT/ITI). Increase value of pelt under Genuine Mackenzie Valley Fur Program to $400 per pelt (ITI) if pelt brought in by end of January Increase price per carcass to $200 (ENR-GNWT) Support hunters to get to where wintering caribou and wolves are.	Reduce wolves near communities – Gamètì, Wekweètì Increase harvest to pre 2008 levels. Increase total wolf kill by trappers and hunters from 40 to 80-100.[3]
b) Increase outfitters and resident harvest of wolves	Increase price per carcass to $200 (ENR-GNWT)	Increase harvest to over 40 wolves
c) Remove problem wolves around communities	ENR-GNWT to hire trappers to snare wolves around communities in early winter	Assessment by Gamètì, Wekweètì hunters and monitors
d) Wolf cull - focus wolf removals and associated monitoring in areas of winter range occupied by collared Bathurst cows - removals at den sites[4]	Use a phased approach, and implement this action if wolf hunting and trapping efforts have not met annual targets and Bathurst herd declining further. Coordinated removal of wolves on Bathurst winter range should be a feasible option by January 2011. Option for removal at den sites should be evaluated and considered in spring/summer 2011.	Develop survey and monitoring methodology, and experimental design for removals of wolves on winter range and at den sites by fall 2010.

5.2 Bluenose-East Herd

TG and ENR-GNWT recognize that most of the recent hunting by Behchokö, Whatì and Gamètì has occurred on the Bluenose-East herd and recommend an interim strategy for managing the hunt of Bluenose-East caribou by Tłı̨chǫ communities, to help stabilize this herd. The recommendation is to reduce the overall Bluenose-East caribou harvest by Tłı̨chǫ communities, to emphasize selection of bulls, and to reduce the number of cows being hunted (i.e. at least 80% males). The recommendation to reduce the Bluenose-East harvest is based on the precautionary principle. The rationale for reducing the overall hunt is based upon the most recent trend data on the Bluenose-East herd between 2000 and 2006, whereby population surveys indicated that the herd had declined by ca. 7.5% per year. Although population surveys for the Bluenose-East herd are scheduled for June and July 2010, until those surveys are completed and the population data

[3] ENR-GNWT information from den surveys and recent aerial surveys suggests that wolf numbers have declined rapidly in the last 5 years. As part of adaptive co-management, the target of 80-100 will need to be re-evaluated annually based on wolf harvest, as well as ongoing and additional information on trends in wolf abundance.

[4] TG and ENR-GNWT are aware that more intensive wolf removal programs are likely to be very controversial. The two parties emphasize that these measures would be considered only if other efforts to recover the Bathurst herd are not working, and the herd continues to decline.

evaluated, the interim recommendation of TG and ENR-GNWT is to reduce the Tłı̨chǫ harvest of Bluenose-East caribou by up to 45% of the estimated 2009/2010 (Appendix 4) harvest in Wek'èezhìi [5]. This approximate harvest target is meant to provide an interim qualitative benchmark to emphasise the need for a substantial potential reduction in future hunting of Bluenose-East caribou by Tłı̨chǫ and other hunters compared to the 2009/2010 hunting season. It is recognized that consideration of the 2010 Bluenose-East surveys and their implications to hunting management are subject to further discussion with Nunavut, Sahtu Renewable Resources Board (SRRB), and the Wildlife Management Advisory Council (WMAC-NWTR) and affected communities.

5.3 Ahiak Herd

TG and ENR-GNWT recognize that there has been no formal population estimate for the Ahiak caribou herd and that knowledge of these caribou is still evolving. However, systematic reconnaissance surveys of the Ahiak calving ground from 2006 to 2009 indicate a 60% decline of the average number of cows seen over the three-year period. This is a real issue for management and conservation of the Ahiak herd and suggests that harvest should be reduced. Similarly, based on available information, TG and ENR-GNWT recognize that that the numbers of caribou cows calving on the traditional Beverly calving ground have declined dramatically and that this herd's seasonal ranges and distribution at calving may now overlap in whole or in part with the Ahiak herd's. Any additional increase in hunting the Ahiak herd may have unintended yet serious implications to the recovery of the Beverly herd, as noted by the BQCMB's submission to WRRB. Consequently, TG and ENR-GNWT recommend that harvest pressure that was focused on the Bathurst herd not be transferred to either of the neighbouring herds that are declining. Furthermore, TG and ENR-GNWT suggest that any current hunting of Ahiak caribou within Wek'èezhìi should emphasize selection of males over females, and that these harvest suggestions would be subject to further consultation and implementation through other partners including the BQCMB, Nunavut Wildlife Management Board (NWMB), Saskatchewan, Nunavut, and other communities in the Ahiak and Beverly ranges.

[5] Between the 2000 and 2006 population estimates of Bluenose-East caribou, the herd had declined by ca. 7.5% per year. By assuming this rate of decline has continued to the 2006 estimate of ca. 66,000 caribou, we extrapolated that the herd would be ca. 48,000 caribou in 2010. In 2006, the Sahtu Renewable Resources Board recommended a voluntary Total Allowable Harvest of no more than 4% of the Bluenose-East herd. Thus, based on this approach 4% percent of 48,000 is 1920, compared to an estimated 3466 caribou hunted from the Bluenose-East caribou herd in 2009/2010. Reducing the harvest estimate of 3466 by 45% results in a harvest of 1906 caribou.

Table 3. Summary of management actions for May 2010 revised joint proposal

Proposed Management Action	Recommended Action for Bathurst Herd in Wek'èezhìi	Recommended Actions for Adjacent Herds (Bluenose-East and Ahiak)
1	Eliminate all commercial meat tags	Eliminate all commercial meat tags
2	Eliminate all tags for outfitting	Eliminate all tags for outfitting
3	Eliminate all resident hunter harvest	Eliminate all resident hunter harvest
4	TG and ENR-GNWT Recommendation Bull Harvest: Use management tools (see implementation section) to limit to 300 ± 10% Bathurst caribou of which a maximum of 20% (i.e., 60 animals) would be female. Allocation of Bathurst caribou among Tłı̨chǫ communities to be discussed by communities, but preference to Wekweètì is recommended. Allocation within and outside Wek'eezhii to be discussed further with other Aboriginal groups.	Interim recommendation to reduce 2010/2011 harvest of Bluenose-East herd by up to 45% of estimated 2009/2010 harvest within Wek'eezhii; (see implementation section for possible tools). The actual target will need to be developed collaboratively following June and July 2010 survey results, analysis of data and discussions with SRRB, WRRB, Nunavut and other user communities. Recommendation not to increase access of Ahiak (and Beverly) caribou by Tłı̨chǫ communities. Harvesters should be encouraged to select bulls and reduce the proportion of cows in the harvest. Further consultation with BQMB, Saskatchewan and Nunavut is required.
5	TG and ENR-GNWT Recommendation Cow Harvest: Cows should comprise ≤ 20% of the targeted caribou hunt as described above.	Interim recommendation to reduce 2010/2011 harvest of Bluenose-East herd to be updated and developed collaboratively following June and July 2010 survey results. Recommendation not to increase hunting of Ahiak (and Beverly) caribou by Tłı̨chǫ communities. Harvesters should be encouraged to hunt primarily (80%) bulls, and to be consistent with BQCMB objectives and recommendations . Further consultation with BQCMB, Saskatchewan and Nunavut is required.
6	TG and ENR-GNWT Recommendation Predator management - Increase removal of wolves through hunter and trapper incentives, and focus on Bathurst winter range in early winter. - Develop and implement coordinated wolf removal programs on winter range to ensure that wolf hunting targets are achieved.	There may be a benefit to Bluenose-East caribou from increased wolf harvest in Bathurst winter range, due to extensive overlap in some years on winter range of Bathurst and Bluenose-East caribou.

6.0 RECOMMENDED MONITORING ACTIONS WITHIN AN ADAPTIVE CO-MANAGEMENT CYCLE

Recommended monitoring actions 1-8 in Appendix B of the November 2009 proposal will be incorporated into an adaptive co-management framework. Figure 5 shows an example of how an annual cycle of monitoring caribou, reviewing information, and possible changes to management action might work. The Bathurst herd is the most immediate focus of this monitoring, but a similar approach could be taken for other herds.

Shown in the middle of Figure 5 are some of the key periods in the year for caribou. Calves are born on the calving ground in June, caribou grow and gain weight in the summer, they begin to move south in the fall (September-October), the rut or breeding season is in late October, and from December to April the caribou are on their wintering grounds. In late April and May the cows migrate northward to their calving grounds again.

Information review and consideration of changes to management (red letters) could occur in August, December and April. In this way, the most up-to-date information on the herd's status can allow re-consideration of management actions without lengthy delays. Key management actions (fall and winter hunts, wolf trapping) are shown in purple.

Monitoring would include caribou surveys in June, October, and late March. The highest priority would be given to annual reconnaissance surveys on the calving grounds and spring composition surveys. For the herd to recover, numbers of breeding cows must increase, and the reconnaissance surveys would provide a measure of trend in breeding cow numbers. Herd stabilization and recovery will also require good calf productivity and survival, which can be monitored by the late winter recruitment surveys. The October survey would provide information on adult sex ratio (bulls:100 cows).

Results of the fall and winter hunts, and wolf trapping would also be closely tracked as integral elements of the monitoring/adaptive management cycle. Wolf harvest and caribou harvest could be tracked on a weekly basis or as community hunts are completed. Details of tracking harvest (e.g. use of tags) remain to be developed, but the two governments recognize that accurate tracking of harvest as it happens would be critical to the success of the program.

Table 4 contains details on the management actions, monitoring and some possible approaches to adaptive management, for the Bathurst herd. A similar table could be developed for the Bluenose-East herd.

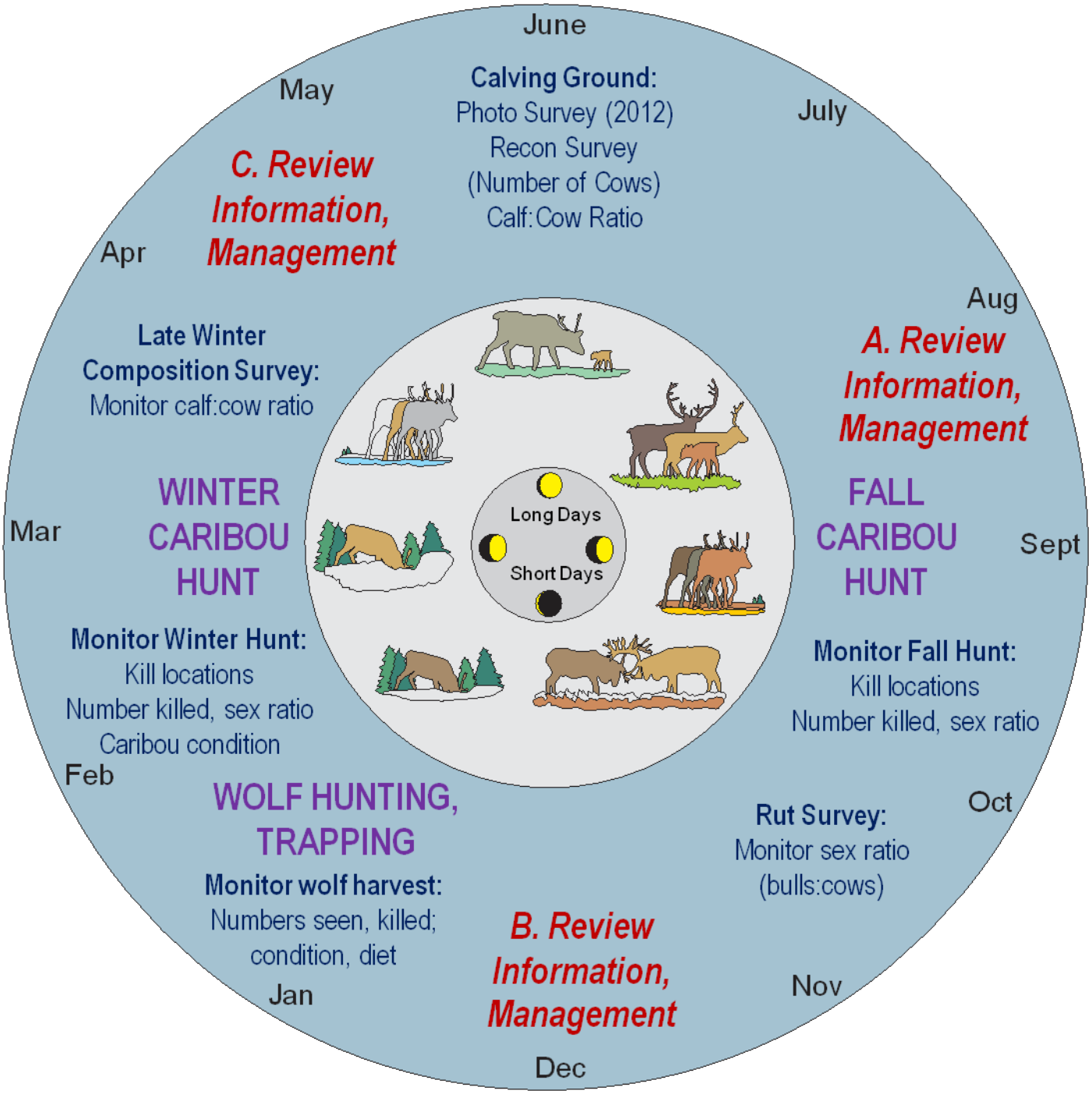


Figure 5. Annual cycle of monitoring Bathurst caribou and hunting, combined with information review and development of adaptive co-management actions.

Table 4. Summary of monitoring actions and adaptive management options for Bathurst caribou herd.

Action	Indicator(s)	Priority	Rationale	Desired Response	Adaptive Management Options	How Often	Notes
1. Reduce cow harvest to <60	1. Numbers (density) of 1+ year old caribou on annual calving grounds reconnaissance surveys	1	Cow survival in Bathurst herd 67-68% in 2009; need at least 85-88% for herd to stabilize/recover. Trend in breeding females correlated to abundance of 1+ year-olds on annual calving ground.	Stable/Increasing trend in numbers of 1+ year old caribou on annual calving ground	If trend in 1+ year old caribou is stable/increasing, continue as before; if trend negative, consider closing harvest and intensifying wolf kill effort	Annual	Further review of best approach to analysing trend from calving reconnaissance surveys to occur with statistician; could use modeling to integrate other data.
	2. Estimate of breeding cows from calving ground photo survey	1	Most reliable estimate for abundance of breeding cows & can be extrapolated to herd size based on pregnancy rate and sex ratio.	Stable/Increasing trend in numbers of breeding cows	If trend in breeding cows stable/increasing, continue as before; if trend negative, consider closing harvest, intensifying wolf kill effort	Every 3 years	Last survey 2009, next 2012. Trend in breeding females is most important; total herd size is best understood by public.
	3. Calf:cow ratio in late winter (March-April); composition survey	1	Herd can only grow if enough calves are born and survive to one year	>40 calves:100 cows on average	If average calf:cow ratio ≥ 40:100, continue as before; if average ratio ≤ 20:100, herd likely declining; re-evaluate management	Annual	Calf productivity & survival vary widely year-to-year, affected by several other variables, including weather.
	4. Fall sex ratio; composition survey	2	Tracks bull:cow ratio; Bathurst ratio has been relatively low (31-38 bulls/100 cows); prime bulls key for genetic health, migration	Maintain bull:cow ratio above 30:100	If bull:cow ratio below target, reduce/eliminate bull harvest	Every second year?	Needed for June calving photo survey – extrapolation to herd size
	5. Cow productivity; composition survey on calving ground in spring (June)	2	Relatively low calf:cow ratio in June 2009 – many very young cows not yet breeding; affects recruitment	High calf:cow ratio (80-90 calves:100 cows)	Low ratio may indicate nutritional problems and possibly low recruitment following March; spring recruitment survey integrates initial productivity and calf survival	Every 3 years?	Essential component of June calving ground photographic survey. Could also be done during systematic survey years if required.
	6. Caribou condition assessment/pregnancy rate	1	Condition assessment provides overall index of nutrition/environmental conditions, estimate of pregnancy rate	High hunter condition scores (average 2.5-3.5 out of 4)	Poor condition or low pregnancy rate may indicate poor environmental conditions, possible decline	Annual	Annual participation of hunters required. Sex & age of animals important to confirm. Key component of cultural hunts.
2. Track caribou harvest accurately	7. Numbers of cows and bulls taken by all hunters	1	Cannot assess effectiveness of management if harvest is poorly tracked; harvest well over target could lead to further decline	Accurate harvest reporting & numbers within target limits	If harvest reports accurate and within target limits, continue as before; if harvest not tracked well or well over limit, review/revise harvest reporting and management immediately	Annual	Location of hunter's kill sites used to assign caribou to herds. ENR-GNWT grid-based hunter survey method to be developed in collaboration with hunters.
3. Reduce wolf predation on adult and calf caribou	8. Numbers of wolves killed/year	1	Wolves are main non-human predator on caribou; natural cow and calf survival rates should increase	Stable/increasing no. of breeding caribou cows. Annual wolf harvest increased from 40 to 80-100.	If cow numbers stable/increasing, continue as before; if trend negative, consider closing harvest, intensifying wolf kill effort	Annual	Difficult to assess effectiveness on caribou survival. Monitoring will also depend on methods used to increase wolf mortality.
	9. Numbers of wolves seen on den surveys	2	Index of relative wolf numbers and productivity, tracked since 1996	Declining trend in wolf numbers & productivity		Annual	Develop standardized aerial survey methods for estimating wolf numbers
	10. Wolf numbers from hunter reports	2	Hunters may report areas of higher wolf numbers; additional measure of trend in wolf numbers	Declining trend in wolf numbers	Areas with more wolves could be targeted for wolf trapping/hunting efforts	Annual	Need to develop hunter interview methodology to collect data.

7.0 IMPLEMENTATION PLAN

A collaborative implementation plan between TG and ENR-GNWT, and consistent with WRRB recommendations, is an integral and complementary component to the recommended co-management actions and monitoring program. Some aspects of monitoring would require prior consideration and agreement on specific implementation options. From a practical point of view, feasibility of implementing management actions in partnership with Tłı̨chǫ communities may also have some bearing on the likelihood of successfully achieving broader management objectives such as support and participation in hunt monitoring. For example, a hunting management target may be successfully achieved through implementation of community-based monitoring within a self-regulatory process consistent with the Tłı̨chǫ Agreement, versus a top-down imposition of a hunting quota that is reliant on enforcement officers to achieve compliance. A community-based approach would promote stewardship and respect by all citizens for caribou.

Therefore, in addition to developing the recommendations for hunting and predator management actions in Section 5.0, and associated monitoring in Section 6.0, TG and ENR-GNWT have initiated discussion on developing a coordinated implementation plan that is based on meaningful participation of Tłı̨chǫ communities and would align the establishment of any new Territorial regulations and Tłı̨chǫ laws. The two governments have been discussing and developing implementation protocols pursuant to their joint recommendations for management actions and monitoring, but more work is required to develop specific implementation options for the proposed plan. Furthermore, the implementation plan may also change according to the final recommendations made by the WRRB, but it is anticipated that development of a detailed implementation plan will be required by TG and ENR-GNWT following the reconvening of the WRRB's hearing and its final decision(s).

Although specific details have yet to finalized, components of an implementation plan for the recommendation to establish a hunting target of 300 ± 10% for the Bathurst herd are outlined below. This is provided as additional context for the recommended actions, and to indicate that progress has been made on implementing actions to stabilize the Bathurst herd. Additional work is required, and in particular the recommendations from WRRB will be central to implementation.

7.1 Development and implementation of a rules-based approach to achieve numerical hunting targets

Hunting practices today are based upon extensive access to caribou throughout much of the herd's annual range due to the use of motorized vehicles – including aircraft, snowmachines, and four-wheel drive trucks. Increased access combined with acceptance of ongoing technological advances in transportation (vehicles), navigation (Global Positioning Systems) and animal tracking (satellite collars) have increased hunters' collective efficiency to the point where hunting may accelerate declines when caribou herds become small. Management of hunting requires more than establishing numerical targets or thresholds. It also requires development and implementation of rules (i.e., regulations, laws, or best practices) that will strengthen Tłı̨chǫ traditions, define acceptable hunting methods and behaviour of hunters, and access to the wildlife resource over time and space. Within this context, the two governments have developed some initial objectives and considerations for implementing a numerical hunting target for the Bathurst herd in Wekeezhii. These are listed in Table 5.

Table 5. Approaches to rules-based hunting of Bathurst caribou discussed by TG and ENR-GNWT.

	General Rule	Considerations
Fall Hunt	Designate a fall hunt which would establish a priority for the community of Wekweètì	A hunting zone and season could be defined to reflect the distribution of Bathurst caribou during fall when they are most accessible to Wekweètì
	Organize and conduct a traditional cultural fall hunt of caribou in the Mesa Lake area (see Appendix 1)	Traditional fall hunts were done by boat. Reduce and re-allocate CHAP money that had been used in the past to provide aircraft support to fall hunts, and develop hunting related educational programs for Tłı̨chǫ.
	Reduce harvest of female caribou	Emphasize hunting of young bulls because of their good condition and quality of meat in fall.
	Encourage harvesting of other animals and fish that were relied on in the past when caribou were scarce	Support fish camps, encourage harvesting of bison, moose and small game.
Winter Hunt	Designate a winter hunt which would reflect the distribution of the Bathurst herd	Define a winter hunting zone based upon recent satellite telemetry data from Bathurst cows. Define a relatively large area as a conservative way of allowing for some shifts in distribution within winter range.
	Monitor hunting of Bathurst caribou	Develop community-based monitoring program in collaboration with Community Caribou Committees. Establish designated check stations at key points along traditional transportation routes. Confirm herd identity for hunted caribou by comparing kill locations to locations of satellite collared Bathurst caribou. Develop a project to test whether new genetic markers could establish herd identity of shot caribou based on tissue samples.
	Manage access to caribou	Define a winter road conservation zone on Tłı̨chǫ lands to encourage people to hunt caribou away from the roads.
	Reduce harvest of female caribou	Emphasize bulls only, but accept up to 20% cows in the harvest.
Community-based Monitoring	Establish Community Caribou Committees to administer and monitor hunting	Use tags to allocate, administer, and monitor hunting effort by community
		Designate monitors within each community as point of contact for hunters and to interview hunters.
		Develop strategy and distribute meat to elders and other community members
	Develop education programs within Tłı̨chǫ communities on “relearning knowledge and respect for caribou” (see Appendix 1).	Solicit feedback and direction from Community Caribou Committees on most appropriate ways of implementing education program, and coordinate with Traditional Knowledge Monitoring Study (proposal developed by A. Legat, WRRB).

7.2 Assessment of Tłı̨chǫ community country food needs, and impacts of caribou scarcity on Tłı̨chǫ communities

During the joint meetings between TG and ENR-GNWT in April and May 2010, it became apparent that population size, needs for caribou meat and access to alternative country foods (moose, fish, bison, muskrat, etc) varied among the four Tłı̨chǫ communities. As noted elsewhere (see Section 5), Wekweètì has more limited access to Bluenose-East caribou during winter, hence allocation of the limited Bathurst caribou harvest was suggested to favour Wekweètì. Although there was insufficient time to carry out a detailed assessment of each community's needs and alternative options, these assessments could be carried out as part of implementing the overall program, once the WRRB has made its recommendations.

In addition, discussions primarily among TG staff suggested that there might be ways in which the effects of scarce caribou meat and loss of hunting opportunities on Tłı̨chǫ communities could be monitored. Studies elsewhere have shown that loss of hunting opportunities can have cultural, economic, health-related and social impacts on cultures and communities for whom hunting is a way of life. Tłı̨chǫ communities have experienced the effects of caribou scarcity most recently in the 1960s; Wekweètì was evacuated at that time to the community now called Behchokǫ̀, with considerable impacts on the families affected by this evacuation. Some initial suggestions on monitoring the effects of low caribou meat availability and reduced hunting on Tłı̨chǫ communities are provided in Appendix 5. These kinds of assessments would be developed further as part of implementing the overall caribou management plan.

Phillip Zoe (Photograph by A. Legat, 2000)

Jimmy Martin (Photograph by A. Legat, 2000)

8.0 ENGAGING COMMUNITIES, DEVELOPING CAPACITY, AND WORKING RELATIONSHIPS

The role of Tłı̨chǫ communities as meaningful partners with TG and ENR-GNWT in the refinement and implementation of management recommendations is fundamental to successful adaptive co-management of caribou in Wek'èezhìi. This section outlines a preliminary working model that starts to address many of the practical challenges for engaging communities, building capacity and developing strong working relationships for governance.

8.1 Engaging communities, capacity and governance

In the context of true collaboration, and in the spirit and intent of implementing the Tłı̨chǫ Agreement, the Tłı̨chǫ Government and the Tłı̨chǫ people must play a significant role in the recovery and long term management of the Bathurst Caribou herd. Thus, in addition to development of management actions focused on management of hunting and predators, an important aspect of this revised management proposal was to consider new ways of implementing and improving the decision-making process. The following section develops and describes a means of developing capacity within communities and the Tłı̨chǫ Government, as well as defining potentially effective working relationships between Tłı̨chǫ communities, TG, ENR-GNWT, and the WRRB. It is provided as an initial exploration of an important aspect of co-management and is not meant to preclude or constrain involvement of any other Aboriginal groups or stakeholders.

Community Caribou Committees and Tłı̨chǫ Ekwò Working Group

Community-based monitoring will play a key role in the future management of the Bathurst Caribou herd. In order to ensure community acceptance and implementation of hunting management changes recommended in this proposal, the Tłı̨chǫ people must be key players in monitoring and local decision making. Within each Tłı̨chǫ community, creation of a Community Caribou Committee (CCC) would involve representatives from elders, active hunters and youth. This committee would work with the coordination and facilitation of the community lands department officer(s) and the Lands Protection Department to determine the needs of each community in relation to caribou, alternative food sources and also education and information needs (Figure 6).

At this early stage of considering community-based monitoring, it is proposed that the CCC will monitor the land and the relationship between the Tłı̨chǫ and the caribou. They will also be provided with opportunities to further develop their understanding of the biological information needs of the ENR-GNWT biologists and to also participate in a traditional knowledge monitoring program[6]. This integrated approach will develop the communities' capacity to define and address community concerns and information needs regarding the land, resources and caribou. The CCC will meet every 4 months in accordance with the seasonal monitoring and adaptive management cycle (see Figure 5) to discuss:

- Recent issues/successes/challenges in each community
- Education and planning for individual community needs
- Monitoring results and how to implement into decision making process
- Mutual sharing and learning.

[6] The WRRB is currently developing a Traditional Knowledge (TK) Monitoring Program that will be implemented in Tlicho communities (A. Legat pers. comm.). There are likely strong opportunities for synergy and collaboration between the communities and Tlicho Government as the TK Monitoring Program proceeds to implementation.

It is anticipated that these community-based committees would work with and report to the Lands Protection Department which would form a Tłı̨chǫ Ekwò Working Group, which would in turn communicate with the Chiefs and Executitve Council (CEC) and Tłı̨chǫ assembly. Representatives from the CCC's will also play a key role in the proposed Tłı̨chǫ /ENR-GNWT Technical Working Group (see Figure 6) and contribute to development and implementation of management options.

Tłı̨chǫ /ENR-GNWT Technical Working Group

This technical working group will continue the joint working group which has collaborated to develop this joint proposal. It will compile and review any new monitoring information that has been collected, and develop management options. These options will be consensus-based proposals whenever possible, for consideration of the Tłı̨chǫ Government and ENR-GNWT, which would determine final collaborative management decisions, after review by WRRB. This technical working group would likely meet according to the time frame suggested by the annual monitoring and adaptive management cycle (Figure 5). The technical working group would consist of representatives from a) the Tłı̨chǫ Ekwo working group to ensure the community perspective, concerns and monitoring is brought into the decision making process; b) ENR-GNWT to ensure that the scientific indicators are brought into the decision making process; and c) observers from WRRB as the overall instrument of wildlife management in Wek'èezhìi. WRRB would also be invited to periodically attend meetings of the community groups and other groups suggested in this proposal, and to advise, as appropriate, on objectives, methods and decision-making (Figure 7).

Once these decisions have been made, they would be incorporated into the adaptive co-management cycle, with the Tłı̨chǫ Government, the CCC's and ENR-GNWT working together to inform the public and implement management decisions.

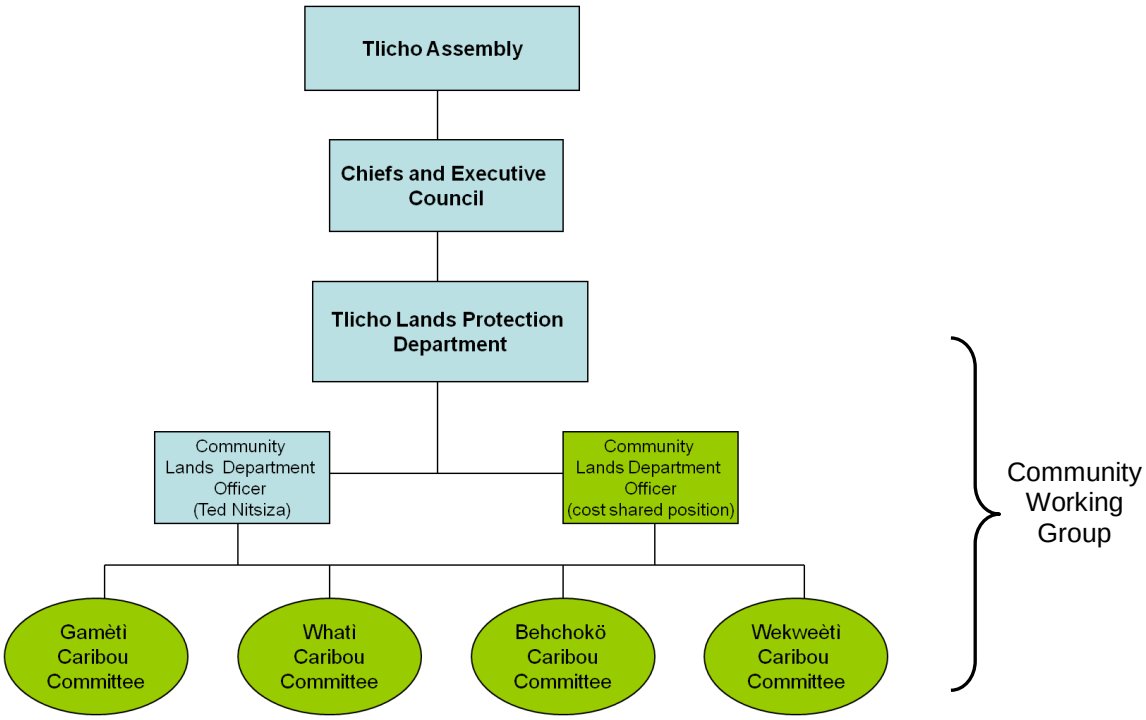


Figure 6: Tłı̨chǫ Government governance and capacity considerations for Bathurst Caribou co-management (note: the blue shaded boxes represent positions currently in place, the green shaded polygons represent positions yet to be defined and filled).

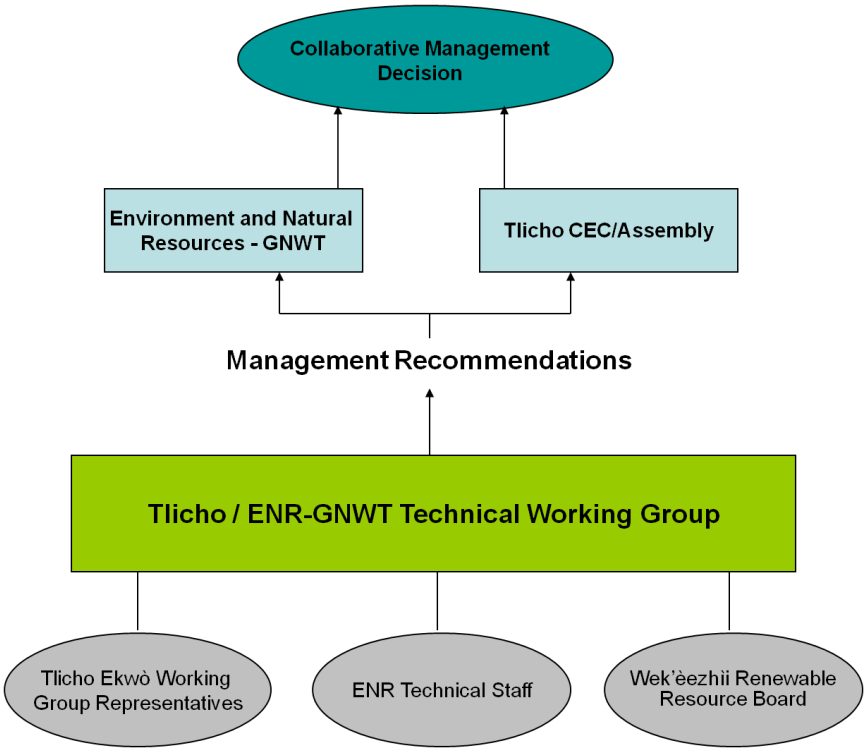


Figure 7: Adaptive Co-Management Decision-Making Process

9.0 MANAGEMENT PLANNING FOR CARIBOU HERDS (SHORT AND LONG TERM)

The main focus of this proposal is on the next 2 years, particularly for the Bathurst herd, as the next population survey (*i.e.,* calving-ground photographic survey) will be in June 2012. Recommendations for the Bluenose-East herd are interim until a new population estimate is established (likely later in 2010), and recommendations for the Ahiak herd will also need to be revised when a population survey is completed in 2011. TG and ENR-GNWT both recognize there is a need to establish longer-term planning processes for all three herds, which may include harvest management plans similar to the co-management plan developed by the Porcupine Caribou Management Board. These processes will likely involve multiple co-management boards, territorial, provincial and Aboriginal governments, and communities, and will take time to develop. The current management proposal includes recommendations for these longer-term planning processes.

9.1 Caribou herd management plans

Of the three caribou herds that have habitat within Wek'èezhìi, none has a formally adopted and current management plan in place as of May 2010.

A multi-jurisdictional co-management planning committee worked to develop a management plan for the Bathurst herd, which was finalized in 2004. However, the plan was not formally ratified by the participating governments and other groups, but it has formed the basis of monitoring of the Bathurst herd has been carried out by the GNWT-ENR.

A planning process for the Cape Bathurst, Bluenose West and Bluenose-East herds was initiated in 2008, and is in progress in mid-May 2010. This process is led by wildlife co-management boards established uner the Inuvialuit, Gwich'in, Sahtu and Wek'èezhìi land claim agreements along with a number of additional partners such as the Nunavut Wildlife Management Board. Recommendations for Bluenose-East harvest or other recommendations for this herd would need to be reviewed by these boards.

Currently, there is no management plan or planning initiative in place for the Ahiak and Beverly herds. The Beverly and Qamanirjuaq Caribou Management Board has a management plan for the Beverly herd, but action plans need to be developed to implement the plan. The BQCMB held a stakeholder community workshop in Saskatoon in February 2010, and participants recognized that there was a need to monitor and manage the Ahiak herd due to its rapidly declining trend. There is also serious concern about the status of the Beverly herd, and recognition that there is a high degree of overlap in seasonal range use between the Ahiak and Beverly herds. These declines and shared seasonal ranges have major implications for recovery of the remnant Beverly herd.

The primary focus of this joint proposal is on the management and recovery of the Bathurst herd. The TG and ENR-GNWT clearly recognize that an overall reduction in hunting of the Bathurst herd should not result in an unintended shift in hunting effort to adjacent caribou herds. Monitoring and recovery options suggested in this revised proposals are the results of direct consultation between the two governments and reflect a precautionary approach for management and recovery of the Bathurst and adjacent herds. As outlined in this proposal, there is a need for longer-term management plans for each barren-ground caribou herd, with precautionary provisions for harvest management in the interim.

- *Parallel process with other Aboriginal groups*

Because the Bathurst caribou range covers lands within and outside Wek'èezhìi, GNWT has been communicating with the Yellowknives Dene First Nation and other Aboriginal groups outside of Wek'èezhìi, to establish processes to discuss co-management of the Bathurst herd. No agreements have been reached at this time (May 31, 2010). This proposal to the WRRB does not preclude the right to harvest for other Aboriginal groups, and it does not diminish the GNWT's requirement to consult with other Aboriginal groups.

9.2 Cumulative effects and landscape management strategies for caribou herds

Although the main focus of this proposal is on reducing mortality rates of Bathurst caribou in the next 2 years, TG and ENR-GNWT recognize that other factors like fire on the winter range and industrial development, including new roads and increased access, can have significant cumulative effects on caribou and compromise the herd's resilience to environmental changes. Habitat conservation is an essential and complementary aspect to population management objectives to enhance recovery of Bathurst caribou over the short and long term. Indeed, recovery of Bathurst caribou, even over the short term, could be compromised in the absence of long-term management plans that ensure long-term habitat conservation and management of cumulative effects.

Consequently, work should be initiated over the short term to ensure consistent development of landscape management strategies across the annual range of the Bathurst caribou and evaluate the potential tradeoffs between industrial development, resource extraction and improved access, relative to goals for sustainable hunting and persistence of healthy caribou populations. Within Wek'èezhìi, the draft Tłı̨chǫ Land Use Plan (April 2010) provides important and relevant context. Similarly, the draft West Kitikmeot Land Use Plan also provides the relevant perspective for land use strategies in Nunavut. A review of these respective draft land use plans would be a useful short term step to develop coordinated strategies for industrial land use and habitat conservation across the Bathurst range.

During the next two years, as concerns or new information develop about habitat-related issues, those will be discussed by the *Tłı̨chǫ /ENR-GNWT Technical Working Group*, in order to develop short-term actions for review by WRRB that may become necessary to support the objectives of this proposal, relating to stabilization and recovery of the caribou herds whose habitat includes Wek'èezhìi. At a strategic level, the *Technical Working Group* should develop recommendations on longer-term planning for each of the three herds, and these plans should include guidelines on protection of key caribou winter ranges, coordination among land management agencies as well as limits to development on caribou ranges, with highest priority to protection of calving grounds for all three herds, recognizing that these are located in Nunavut.

10.0 USE OF ALTERNATIVE COUNTRY FOODS AND ACCESS TO OTHER WILDLIFE SPECIES

Tłı̨chǫ have experienced previous times of scarcity and abundance in caribou. Elders have always believed that when caribou became scarce they would go away to be left alone and recover. During previous times of caribou scarcity, the Tłı̨chǫ and other Aboriginal peoples relied more heavily on other sources of country food including moose, beaver, muskrat and fish. The elders knew to always leave 'seed on the land' in order to ensure that the species they were hunting or trapping would be able to recover. Thus, out of necessity and respect for the wildlife, Tłı̨chǫ had a strategy to adapt their use of wildlife according to prevailing seasonal and natural long term cycles in abundance of caribou.

Given the decline and low abundance of the Bathurst herd, the Tłı̨chǫ recognize the need to both reduce their consumption and hunting of caribou and to expand their harvesting to other species. Large ungulates such as wood bison and moose may be able to provide additional meat for consumption but added harvest pressure also places an onus on additional monitoring to ensure that the hunting is sustainable.

10.1 Increased access to wood bison in Wek'èezhìi to reduce hunting pressure on barren-ground caribou

Wood bison have expanded into the North Slave region in the last 15 years from the herd established at Fort Providence in 1964. With the re-alignment of Highway 3 between Behchokǫ̀ and Yellowknife, wood bison expand to within 30 kilometers west of Yellowknife using the road right-of-way as a movement corridor. This section of the highway is on Canadian Shield, which has limited prime wood bison habitat. In the Slave River Lowlands, the wood bison population is bounded by the Canadian Shield to the east. The Mackenzie bison herd was estimated at 1600 animals in 2008. Less that 400 bison are resident in the North Slave region, with less than 100 between Behchokǫ̀ and Yellowknife.

Wood bison are listed as a "threatened species" under the federal *Species at Risk Act*. A national recovery strategy is being drafted. Targets for size of recovery herds vary between 500 and 1,000.

Wood bison damage property in Behchokǫ̀ and Edzo and approximately 20-30 are killed on the highway annually in the North Slave Region. To date, no human lives have been lost due to vehicle accidents in the North Slave Region. Most collisions occur in the fall when days become shorter. Semi-trucks have killed as many as 7 buffalo in one collision.

The draft NWT Wood Bison Management Strategy identified a number of immediate actions to maximize benefits and reducing bison/human conflicts in communities and along highways. Wood bison in the North Slave region may provide an alternative country food source to barren-ground caribou. The Interim Emergency Measures implemented by ENR-GNWT in January 2010 included establishing two wood bison management zones in the North Slave Region (as in Table 6).

Table 6. Changes to bison management in Tłı̨chǫ land claim area

Management Zone	Regulations	Management Objectives
R/WB/01 – west of Behchokǫ̀ to Dehcho boundary (Birch Creek)	45 tags issued (25 to Tłı̨chǫ Government, 10 to YKDFN, 10 to Metis groups) Any sex Season Jan 1 to Mar 15 May be issued to GHLs, resident or outfitted hunter	Maintain Mackenzie herd at over 1,000 wood bison. Reduce wood bison conflicts in communities and along highway. Maintain wood bison in this area. Provide alternative country food source to barren-ground caribou. Provide opportunities to outfit for wood bison in North Slave region Provide opportunity for Tłı̨chǫ to learn about hunting and eating wood bison.
R/WB/02 – east of Edzo	GHL only, no limit Must report kill within 72 hours Season Jan 1 to Apr 15	Eliminate wood bison from this area, which is not prime wood bison habitat

ENR-GNWT recommends that the wood bison management zones be continued as noted in the table above. However, the season in both zones should be expanded to be consistent with subsistence harvest in Dehcho for this herd. The season would begin September 1 and continue to April 15.

10.2 Monitoring actions for other harvested species

As part of their commitment to responsible wildlife management, TG and ENR-GNWT recognize the importance of conducting additional monitoring of species that may incur increased hunting pressure. However, specific discussion and agreement on additional surveys and monitoring programs has not occurred for species such as moose or boreal caribou. Baseline surveys to document abundance and distribution of moose and woodland caribou have been conducted in the last 5 years.

APPENDIX 1. The relationship between Ekwo (caribou) and Tłı̨chǫ culture, language and way of life

The inter-dependence of the Tłı̨chǫ people with Ekwo could be considered the fundamental pillar or essence of Tłı̨chǫ culture. The Tłı̨chǫ and other Aboriginal people in the North have depended upon caribou for their physical, mental and spiritual needs since time immemorial. Since the time of Yamozah, the Tłı̨chǫ have lived in co-existence with the caribou, with rules and laws of respect and appreciation defining the relationship between the Tłı̨chǫ and the caribou. The caribou provide the Tłı̨chǫ with their life, their spirit and their inspiration. The connection they have is not only about the physical contribution the caribou makes to Tłı̨chǫ food, clothing, bedding and shelter. The caribou are the source of their legends and beliefs; the basis of their lifestyle, traditions and practices and the foundation of their value system. Tłı̨chǫ traditional trails follow the paths of the caribou towards the barrenlands with campsites, gravesites and places of spiritual significance all being described by placenames along the way. These placenames are dependent upon the soil substance and landscape, determining the harvest methods and telling the story about the place it describes.

Tłı̨chǫ history with Bathurst Herd

The relationship between the Tłı̨chǫ and caribou has changed over time, with the outside influences of the global market economy and trade leading to altered ways of valuing this sacred animal. This has led to a change in Tłı̨chǫ and outsider dependence on the animal. As early as 1700 the European desire for beaver pelt hats and other furs brought trappers and traders to the North, increasing the need for caribou as a trade item. This was the beginning of the change from hunting for subsistence to hunting for trade, thereby altering the relationship between man and animal.

The establishment of Old Fort Rae in 1852 further increased the market value of caribou. The Fort was set up not for trade but as a provisional post. It would buy caribou from the locals to trade and distribute to posts along the river. The Tłı̨chǫ would sell their caribou to the post, only to end up purchasing it back later at times. Caribou had now truly become a product to be bought and sold.

The last major change in this relationship has occurred in the last 15 years, where we have seen diamond mines, ice roads, all season roads, big game outfitting, resident and commercial hunting, high powered rifles, skidoos and trucks and trailers come onto the scene. This has altered the relationship between man and caribou and increased the pressures and stress on the animals, potentially more than in the last 150 years together.

Times of Scarcity

The relationship between Tłı̨chǫ and caribou is maintained by laws governing human behaviour towards the caribou. When these laws are not respected, it is believed that caribou populations will become smaller and their migration patterns will change. There have been times of scarcity and times of abundance, which have been influenced by both natural cycles of wildlife abundance and human influence. Elders have always believed that when the caribou became scarce they would go away to be left alone - to recover and replenish themselves. They would then come back to offer themselves to the Tłı̨chǫ; thus, the relationship between Tłı̨chǫ and Ekwo was one of mutual respect between man and animal.

During those times, the caribou were not as easily accessible as they are today. There was no mechanised transport such as skidoos, airplanes and 4x4 trucks. During previous times of scarcity,

the Tłı̨chǫ and other Aboriginal peoples turned to other sources of food – moose, beaver, muskrat, ducks, geese, or fish. The elders knew to always leave 'seed on the land' in order to ensure that the species they were hunting or trapping would be able to recover.

The most recent Tłı̨chǫ memory of a time of caribou scarcity was in the 1960s. At this time, the community of Wekweètì had to be evacuated to Behchokö and Gamètì, because of a scarcity of caribou and other game. This move led to significant changes in the political and social fabric of Tłı̨chǫ society. Due to an influx of people and lack of infrastructure in Rae, the community of Edzo was developed by the GNWT. During this period, Tłı̨chǫ children were encouraged to go into the residential school system, in exchange for relief from the government. The caribou decline indirectly led to changes in Tłı̨chǫ culture and lifestyle as the school system and amenities such as a hospital further influenced the Tłı̨chǫ to live in communities and to begin to leave their bush life behind.

From scarcity to abundance – so it seems

The last major periods of scarcity of the caribou that impacted the Tłı̨chǫ significantly preceded the advent and introduction of skidoos, trucks and airplanes to the hunt for caribou. Prior to the 1970s, both Aboriginal and non-Aboriginal hunters used dog sled teams and went only as far as they could carry food and supplies to survive on the barren lands when they went hunting. The Tłı̨chǫ did not control the land, but the land controlled the people and their actions.

Following the introduction of the snowmobile in the 1970's, access by hunters across the seasonal range of Bathurst caribou began to expand. In 1972, the modern airplane was introduced to the community hunt. The GNWT began at this time to contribute airplanes for greater access to caribou and programs to assist communities with money for fuel. Community freezers were introduced. Caribou was no longer only available for certain periods in the season, but it became available all year round whether the caribou were readily available and close to communities or not. The need to depend on other species at periods of time throughout the year now became a choice, not a necessity.

The changing role of caribou in the Tłı̨chǫ way of life and the gradually altered expectations over time has brought us to the present. The North is increasingly accessible by airplanes, skidoos, winter roads with trucks and trailers and high powered rifles. Tłı̨chǫ and other peoples in the North have developed expectations and have been conditioned over time to believe that they have a right to access and have caribou available at all times, without question or consequence. The steep decline in the Bathurst herd tells us all that this is no longer the case and we must change our ways. With declining caribou numbers and maintaining or increasing the same level of harvest, the caribou face a significant challenge in recovering that needs to be addressed. The future children of the North have a right to enjoy the caribou as others previously have, and it is the responsibility of the Tłı̨chǫ, other Aboriginal groups, ENR-GNWT and all other stakeholders to begin to change our collective thinking and expectations, and to give the herd an opportunity to recover.

A way forward

A recovery and management plan for the Bathurst caribou cannot focus only on the ecological issues at hand. The relationship between humans and caribou is complex and dynamic, and is of fundamental importance. In order to address the decline in the Bathurst herd, this complex system must be taken into account, with an appreciation that restrictions of harvest are only a small part of the long term sustainable approach to this issue. By looking at the system as a whole and its

interconnectedness, the solutions will be found in many different places, places that science alone can not define.

As this management proposal will show, the Tłı̨chǫ Government and ENR-GNWT have worked together to develop a holistic, realistic and adaptive co-management plan. Through adaptive co-management, capacity building, education and cooperation, we believe that the Bathurst caribou herd's future may in fact not be so dire and that this species will be here to teach and share with our children and their children thereafter.

Education – Relearning knowledge and respect – Nǫ́owo governing Caribou

Tłı̨chǫ elders have always taught that becoming and being knowledgeable is the way that respect is shown to the caribou. They believe that a person becomes knowledgeable by listening, watching and experiencing, and that there is a relationship between one's personal knowledge and their ability to respect the land. Being knowledgeable is necessary for a person's success and in order to survive, individuals must have different types of knowledge (men's, women's and non Aboriginal) accumulated over time. Tłı̨chǫ elders believe that if the young people were unable to become knowledgeable in the past, they were unable to survive and the same applies today.

The Tłı̨chǫ have many laws governing their behaviour towards the caribou
- Laws governing treatment of caribou
- Laws governing Use and Need
- Laws Governing 'what is not used'
- Laws Governing the Responsibility of Leaders and Elders
- Laws Governing Parents' and other family Members' behaviour
- Laws Governing Female Behaviour
- Laws Governing Hunters
- Rules Governing Following and Meeting Caribou
- Rules Governing the Respectful 'Cutting Up' of Caribou

If these laws are not abided by, this is a sign that the person lacks knowledge and is emotionally unwell. It is a sign that they are disrespecting the land and the caribou.

This lack of knowledge which guides human behaviour: "demonstrates disrespect of oneself, the de, and the caribou. This can lead to a decline in caribou population, changes to caribou distribution, and a dysfunctional society" (Legat, Chocolate and Chocolate: 40)."

As this knowledge is lost, the laws are no longer followed and respect for the caribou is further diminished. With modernization and changing lifestyles, this knowledge gap has increased over time causing both the Tłı̨chǫ and others to lose knowledge and respect for the caribou.

This knowledge must be relearned, if the Bathurst caribou are to recover. Through education and reconnection with the traditional practices and understanding that the Tłı̨chǫ once had, this knowledge and respect can be regained by:
- Education on Tłı̨chǫ Geography and Placenames
- Knowledge sharing from the elders
- Laws governing behaviour towards caribou
- Legends and Stories

- Hide tanning workshops
- Workshops on meat cutting and butchering
- Drum making and traditional craft making workshops

Tłı̨chǫ re-initiated some of these traditional practices this past winter (2009-2010) by bringing back and using caribou hides from community hunts carried out by Whatì and Behchokǫ̀.

Cultural Hunts

In order to renew and strengthen the connection between people and the caribou, the Tłı̨chǫ must revitalize the traditional ways in which they related to the caribou - through cultural hunts. By reestablishing the concept of cultural hunts - following the whaèhdǫǫ́ ʔetǫ (ancestor trails) - the Tłı̨chǫ will have an opportunity to travel the way their ancestors did in days passed. By following their ancestral trails they will have an opportunity to listen, observe and monitor the land; to learn the nàowo (laws) and stories, and they will have an opportunity to learn the placenames and ways of their ancestors. They will begin hunting by canoe and returning again to the sacred area of Mesa Lake, where peace was made between Edzo and Akaitcho. They will reemphasize and support the hunting and trapping of alternate species when caribou are simply not accessible.

Cooperation and working together is a Tłı̨chǫ Nàowo that has traditionally been highly valued. The community hunt and the communal nature that surrounds it will contribute to bringing back this valuable law of the Tłı̨chǫ.

This management proposal is not only about recovering the Bathurst caribou herd. It is equally about the recovery of Tłı̨chǫ language, culture and way of life that is dependent upon the Bathurst caribou.

APPENDIX 2. Barren-ground caribou herd management

Changes in animal populations over time are driven by four factors: births, deaths, immigration, and emigration. Births and immigration increase the numbers of animals in a population, whereas deaths and emigration decrease animal abundance. Thus, population trend is a result of the balance between these four factors.

Within North America, migratory barren-ground caribou herds are defined and managed as distinct herds or populations, because studies have shown that this is how they have adapted to the large landscapes they live in. Herds are defined based on the strong instinct of caribou cows to return every spring to a traditional calving ground. Studies show that usually about 95% or more of pregnant cows return annually to the same traditional calving ground.

Figure 2-1 shows the calving grounds of the Bathurst herd since 1996 in orange, with the summer range in green and the winter range in blue. Radio-collared cows from other herds have their own calving grounds east and west of the Bathurst calving ground. Although there is often overlap between herds on the winter range, at calving the cows move out to their separate traditional calving grounds. Over many years of study with various herds, immigration and emigration between neighboring caribou herds have generally been shown to be low and to occur in both directions about equally (2-5% in cows).

Once a caribou herd is defined, trend in herd size depends almost entirely on the balance between births and survival of calves to one year (additions), and deaths of bulls, cows and calves (losses). Radio-collar studies of many herds show that rates of caribou switching between neighbouring herds are generally low and occur in both directions. If there are many more deaths than calves added to the herd, the herd will decrease. If the number of calves added to the herd is greater than the numbers that die, the herd will increase. If births are matched by death rates in the population, the herd will be stable.

The rates at which animals die over one year are mortality rates, whereas survival is the opposite of mortality. For example, if 15 cows in a herd with 100 cows die in one year, then the cow mortality rate is 15%, and the cow survival rate is 85%.

Studies of various barren-ground caribou herds have shown that the highest mortality rates usually occur in calves less than a year old, from predation and other causes. Often 2/3 to 3/4 of the calves born in any year will die before they are one year old. After that, mortality rates of year-old caribou are quite similar to those of adults. The number of calves born depends on the pregnancy rate of the cows. If the cows are in poor condition in the fall, they may not become pregnant. Barren-ground caribou herds usually have pregnancy rates of 70-90%.

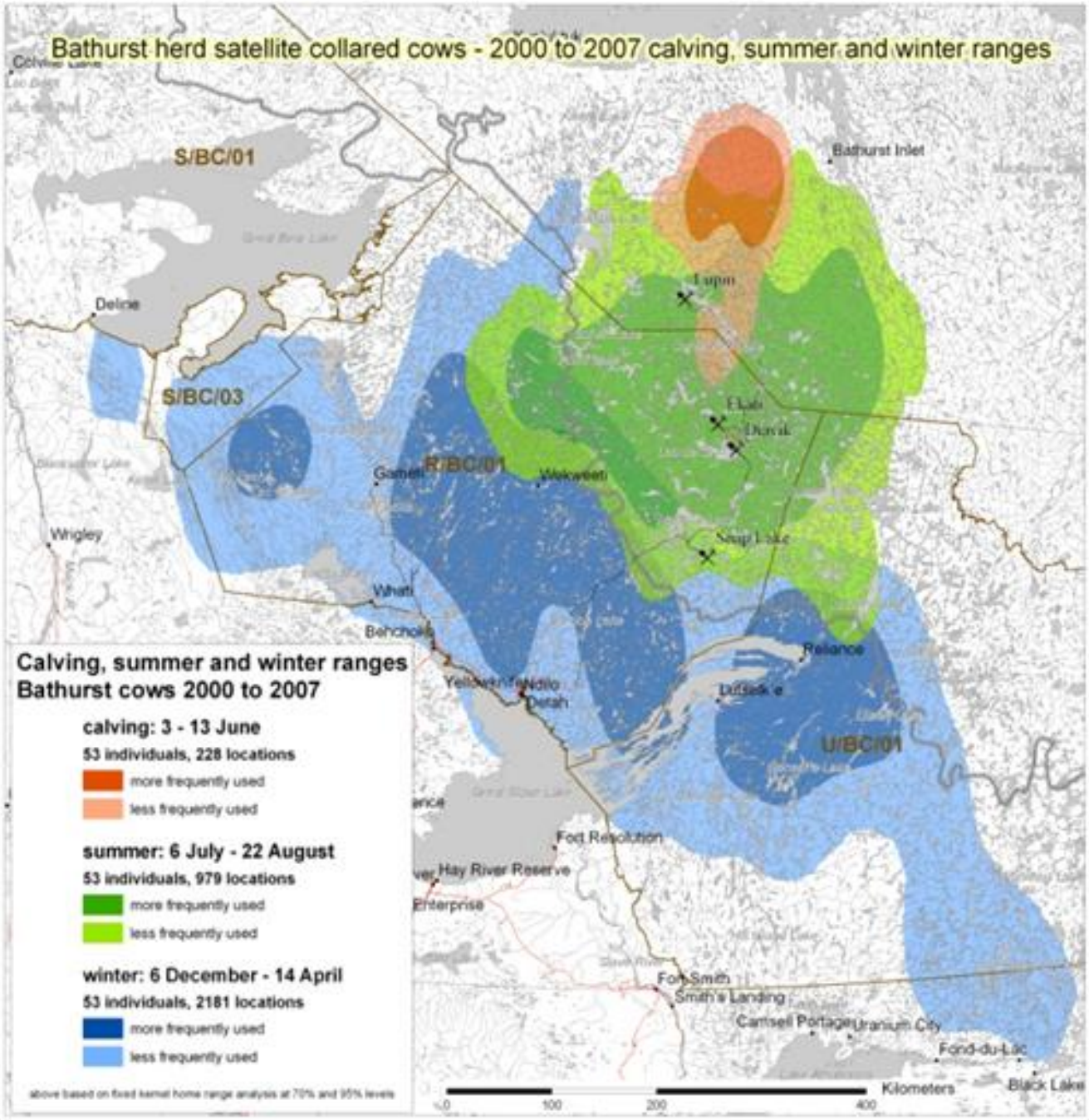


Figure 2-1. Seasonal ranges of Bathurst caribou based upon locations of satellite collared cows from 2000 to 2007.

Bulls almost always die at higher rates than cows, and annual mortality rates of 30-32% are common (with survival rates being 68-70%). As a result, the ratio of bulls to cows in a herd is often 50 bulls:100 cows or less. Since one bull can mate with several cows, variation in bull survival rates has limited effects on pregnancy rates.

Cows usually die at lower rates than bulls or calves, and annual mortality rates are usually 10-20% (thus survival rates are 80-90%). Studies of several caribou herds have shown that small changes in the survival rate of cows have a strong effect on population trend, in part because this is the largest

part of the herd and also because the loss of a pregnant cow means the loss of the cow, the calf she is carrying, and all the calves she may produce in later years.

Population trend in caribou also depends on the rate at which calves are born and the rate at which they die in their first year. Calf:cow ratios in late winter provide an index of the herd's productivity (pregnancy rate and first-year survival). These ratios often change quite a bit from year to year. In the Bathurst herd these ratios have varied from less than 10 calves:100 cows to over 50 calves: 100 cows. Ratios below 30 calves:100 cows are generally indicative of declining herds.

Barren-ground caribou herds go through large changes in numbers over time; this knowledge has come from elders in several aboriginal cultures. For example, knowledge of Tłı̨chǫ elders has confirmed that large fluctuations in numbers of Bathurst caribou have occurred in the past, and likely many times over thousands of years. Figure 2-2 shows estimated changes in numbers of the George River herd in Quebec/Labrador over a 200-year period. Surveys were done from the 1950s on, and the earlier estimates of numbers were based on a variety of sources, including knowledge of Innu and Inuit people.

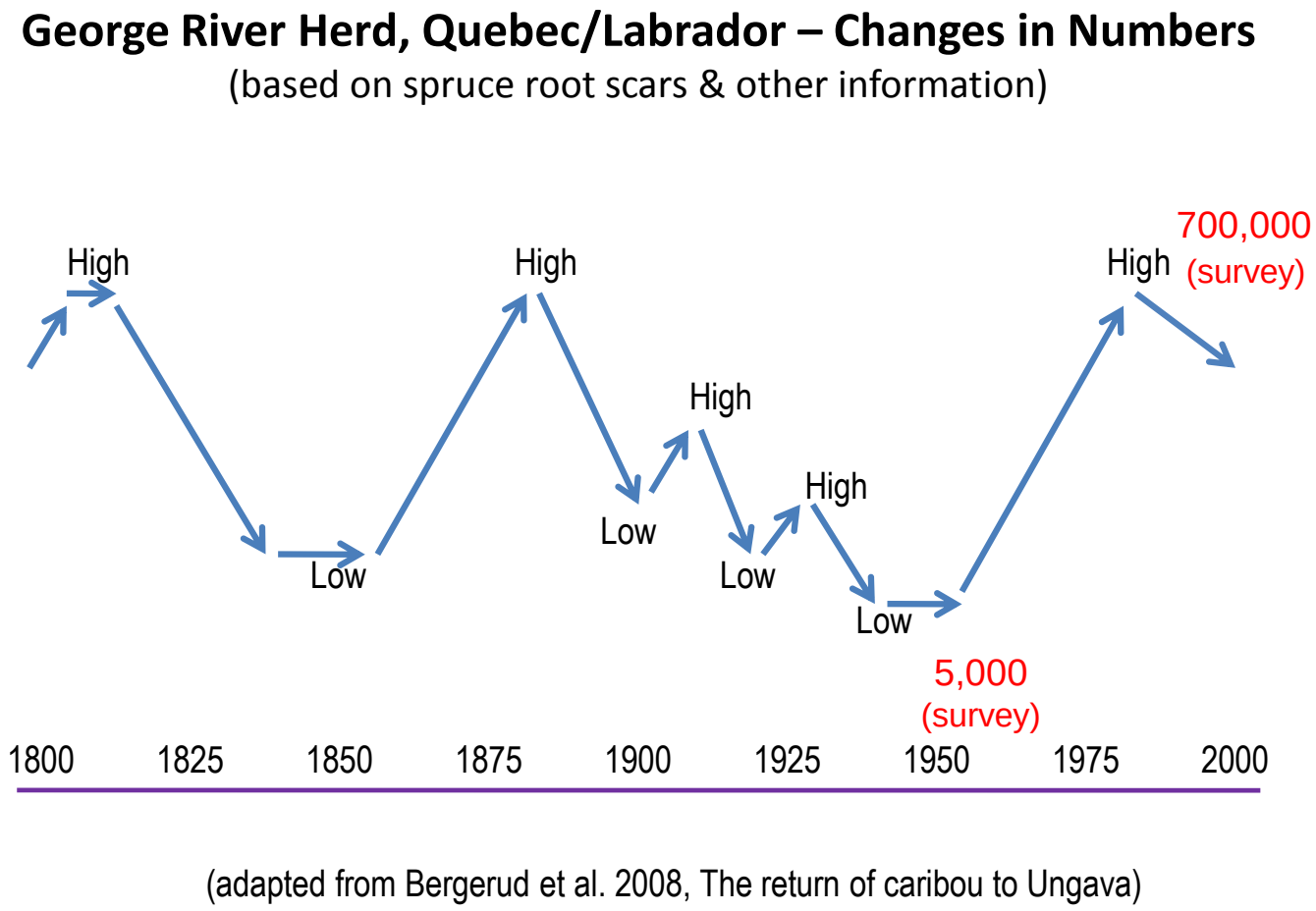
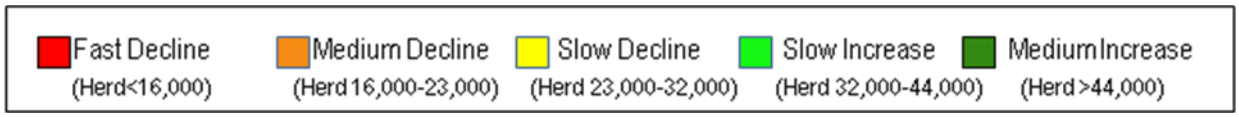


Figure 2-2. Historical trend in George River caribou herd based upon spruce root scars and other information, adapted from Bergerud et al. 2008.

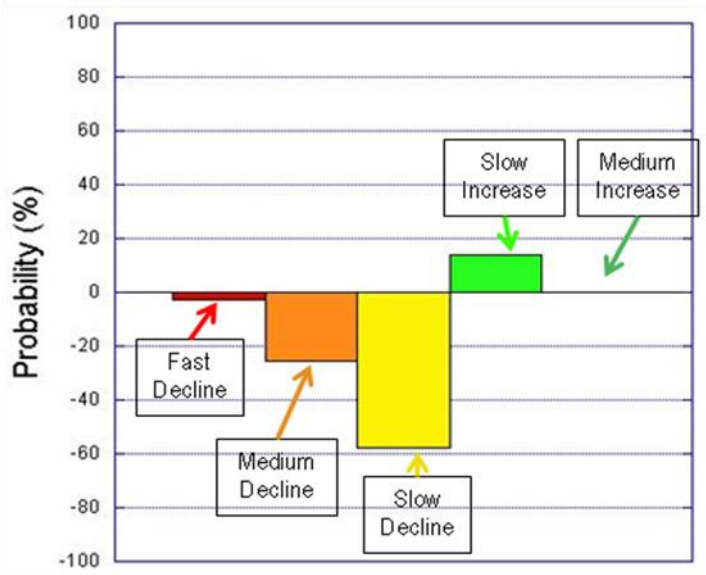
APPENDIX 3. Population demography and summary of modeling for determining hunting objectives for Bathurst herd.

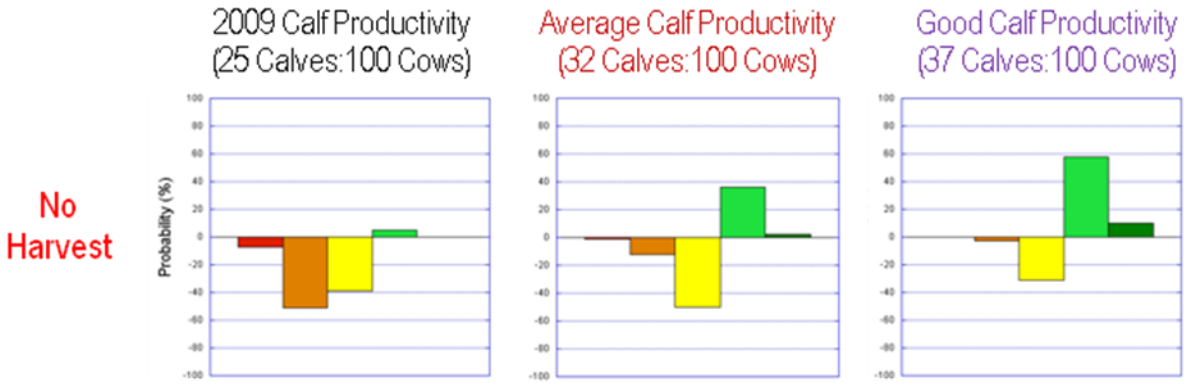
Defining a sustainable harvest from a caribou herd or other wildlife population depends on the herd's trend and size, and on the sex ratio of the harvest. There is, by definition, no sustainable harvest from a declining herd, as hunting mortality can only add to the natural mortality that is already exceeding replacement by young of the year. A harvest from a declining population may still be allowed for social or economic reasons, but there is a risk of increasing the extent and rate of decline. The model outcomes summarized here are based on reports submitted to the WRRB prior to the March hearing in Behchokǫ̀.

Population models can be used to understand how birth and death rates affect a caribou herd, and how harvest is likely to affect a herd's future trend. ENR-GNWT has used two population modeling approaches to assess the herd's likely future trend with harvest rates varying from 0 to 5000 cows and 2000 bulls/year. Supporting documents from J. Boulanger or by J. Adamczewski (based on Boulanger's modeling) describe how one of these modeling approaches was developed. A few examples are presented here to illustrate the range of likely outcomes, depending on calf productivity and harvest. The modeling was set up to allow calf survival, cow survival and pregnancy rate to vary from year to year, within the range of values known for the Bathurst herd. The model was then run hundreds of times for each set of conditions. Because of the many model runs with varying birth and death rates, there were also hundreds of outcomes for each set of conditions. The outcomes were grouped in 5 classes of likely trend as follows (6-year projections), assuming a starting population of 32,000:

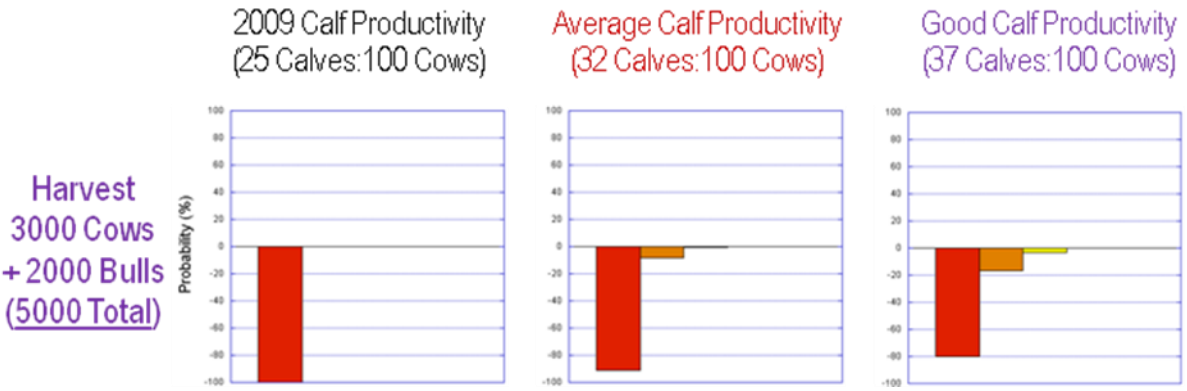


For each set of conditions, the range of results was graphed as a bar graph where the size of the bar represented the most likely outcome. In the example below, of the hundreds of model runs, almost 60% resulted in a slow decline where the herd was likely to be between 23,000 and 32,000 after 6 years. The second most likely outcome was a medium decline resulting in a herd between 16,000 and 23,000 after 6 years.

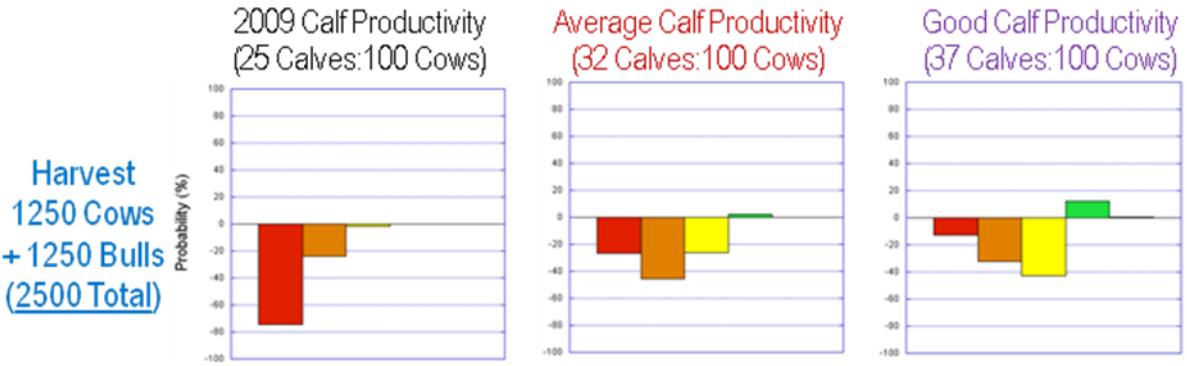




The three graphs above (all 6-year projections) show likely outcomes for the Bathurst herd with no harvest after 2008-2009, and with calf productivity varying from relatively low (2009 or the average for 2000-2009) to average for the herd (1985-2009) to good (Bathurst herd before 1995). Calf productivity is shown as expected late-winter calf:cow ratio. With no harvest, the herd could decline further, stabilize, or begin to increase, depending on calf productivity.

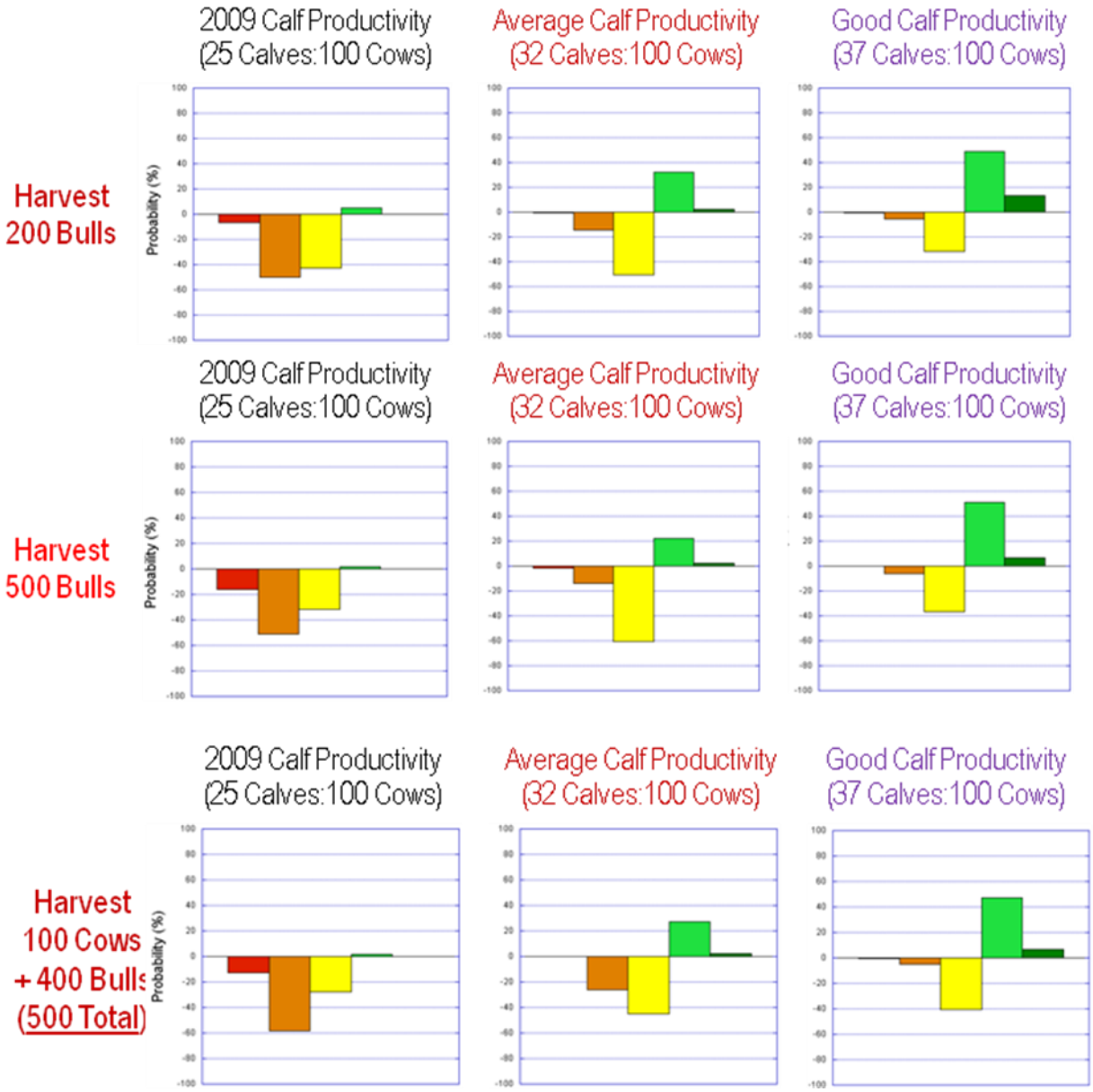


The series of graphs above (again 6-year projections) illustrate likely population trend if harvest had continued at a level of 3000 cows and 2000 bulls/year, numbers within the harvest range estimated for the Bathurst herd in 2008-2009. Under these conditions, the herd could only decline rapidly, as there is no level of calf productivity that can offset this level of cow mortality. If this harvest is cut in half to 1250 cows and 1250 bulls/year (graphs below), continued decline is still the only possible outcome, although at good calf productivity the decline would be somewhat slower.

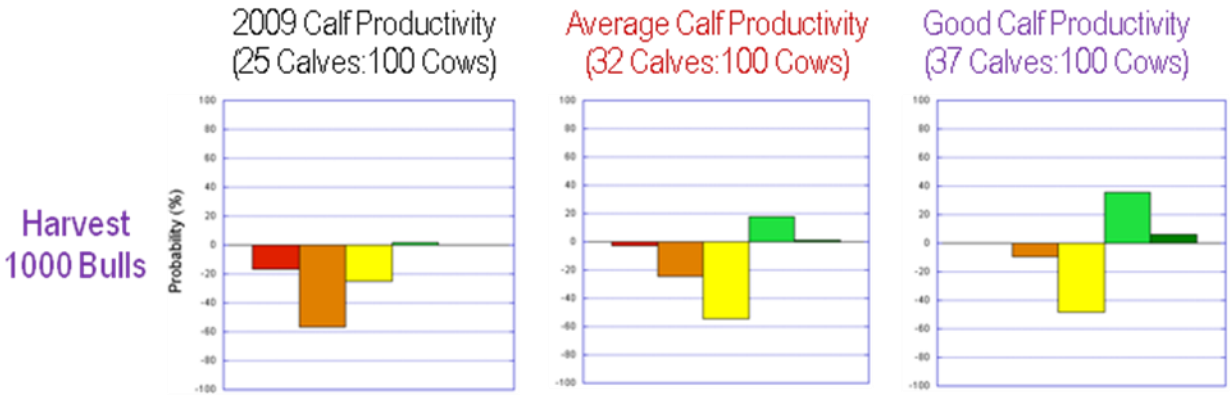


The next three series of graphs below shows the herd's probable trend with a harvest of 200 bulls, 500 bulls, and 400 bulls and 100 cows/year. The outcomes for a harvest of 200 bulls were similar to the outcomes for no harvest, suggesting that this level of bull harvest would have relatively little impact on the herd's future trend,

and herd trend would depend primarily on calf productivity. The outcomes for a harvest of 400 bulls and 100 cows were similar to a bull harvest of 500. At average calf productivity, 2/3 of the model runs still resulted in further decline.



Larger harvest levels of 1000 or more caribou (next series of graphs) were associated with a high risk of continued decline. Overall, this modeling suggested that a harvest of 200-500 caribou, mostly or all bulls, might be associated with further decline at a slow rate, or could become sustainable if calf productivity stayed at a consistently high level. Bull harvest had less effect on overall herd trend than cow harvest. The Bathurst herd has had lower fall bull:cow ratios (31-38 bulls:100 cows) than other barren-ground caribou herds monitored by GNWT.



It is important to recognize that the results from this modeling and other population models like the Caribou Calculator depend on the numbers and assumptions used. The model outcomes can be used as a guide to likely consequences of particular harvest management and to provide a sense of the likely range of outcomes possible. Management should be flexible as further monitoring results are acquired.

APPENDIX 4. Summary of estimated caribou harvest from the Bathurst, Bluenose-East and Ahiak herds in 2009/2010.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
2	**Community**		**Bluenose East Herd**		**Bathurst Herd**		**Ahiak & Beverly Herds**		**Estimated sex ratio in the harvest (Females/Males)**		**Comments**			
3														
4	Behchoko		565		0		0		65/35		All winter harvest for the Tli Cho communities and the YKDFN			
5											were conducted jointly with ENR and numbers of caribou were monitored			
6	Wha Ti		360		0		0		65/35		either by biologists, wildlife officers and/or community wildlife monitors.			
7														
8	Gameti		250		0		0		65/35					
9														
10	Wekweeti		0		100		0		65/35					
11														
12	YKDFN		0		100		130		65/35					
13														
14	Lutsel Ke		0		0		700		10/90		Reported by the Lutsel Ke wildlife officer			
15														
16	Fort Smith and Fort Resolution		0		0		140		?					
17														
18	Sahtu		900		0		0		95/5		500 caribou taken between November 2009 and February 2010 by Deline residents. Locations of harvest unknown.			
19											In addition 150 caribou harvested east of the Johnny Hoe River Area plus 50 from Hottah Lake and 100 more for a hand game event			
20	Deh Cho		100		0		0		?					
21														
22	Tli Cho individual hunt		235		0		0		?					
23														
24	**Total winter harvest**		**2410**		**200**		**970**							
25														
26	Nunavut (summer)		500		0		0		?		Estimate from Nunavut government			
27														
28	Non-Resident		123		100		0		0/100		Non-resident harvest reporting is mandatory and results and compiled at the end of the season.			
29														
30	Aboriginal fall harvest		433		0		60		0/100		Aboriginal harvest in 2010 was not monitored but estimate came from the 2007 fall reported harvest by			
31											the Tli Cho Government and the assumption that fall harvest number is consistent from year to year.			
32	**Total Fall Harvest**		**1056**		**100**		**60**							
34	**Total estimated harvest by herd in 2009/2010 Season**		**3466**		**300**		**1030**							

APPENDIX 5. Assessment of Tłı̨chǫ communities' country food needs, and assessment of effects of caribou scarcity on community well-being

Discussions during the joint TG and ENR-GNWT meetings in April and May 2010 indicated that each of the four Tłı̨chǫ communities would have different needs for caribou meat and that access to alternate country foods (moose, bison, muskox, woodland caribou, fish, muskrat, etc.) would also vary for each community. As part of an implementation plan, TG and ENR-GNWT suggest that an assessment of needs for caribou and access to alternate meat sources be carried out for each community, most likely by TG, with potential assistance from the community-specific caribou committees. Preliminary discussion by Tlicho Lands Protection Department staff, has identified strong potential for collaboration with the Tlicho Community Services Agency as well as the Tlicho Department of Language, Culture and Communications.

Due to the strong connections between the population health of caribou and the traditional food system of Tłı̨chǫ people, it is important to consider the potential effects of reduced caribou on a variety of social, cultural, and health/nutritional indicators in the communities (see Figure 5-1 below as an example). Table 5-1 below summarizes initial concepts for information needs that could be addressed as part of an assessment of each community's situation (section A) and also lists potential impacts of caribou scarcity on Tlicho (section B). There are established methods for assessing these kinds of impacts, and this could be a useful way of assessing how Tłı̨chǫ communities respond to a period of reduced caribou availability.

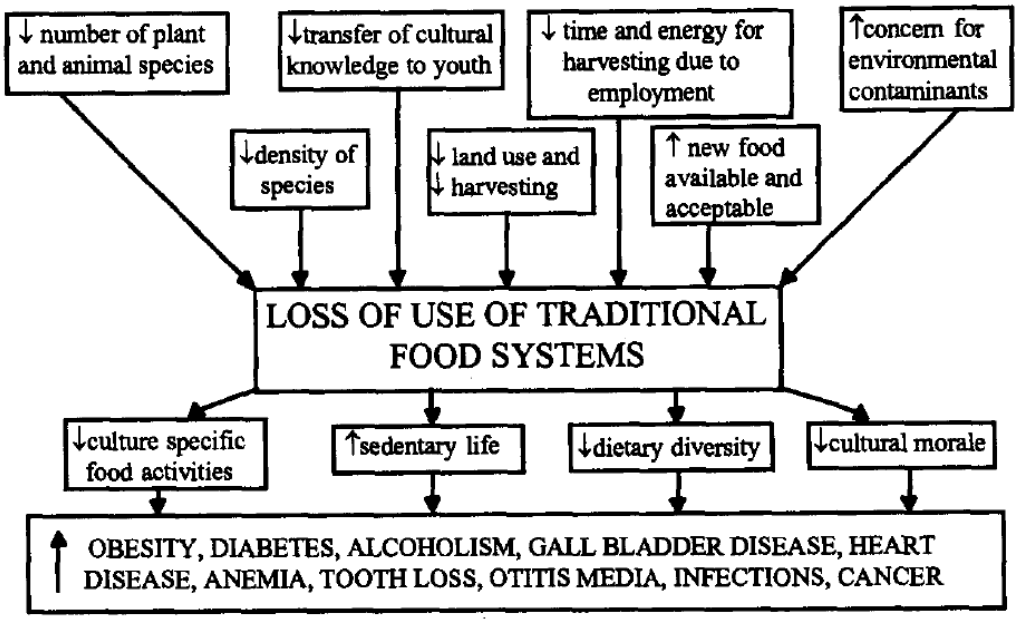


Figure 5-1. Factors influence dietary change and consequences of change for indigenous peoples (Kuhnlein, H.V., and O. Receveur. 1996. Annual Review of Nutrition. 16: 417-442)

Table 5-1. Assessment of community needs for caribou or alternate foods, and assessment of the effects of caribou scarcity on Tłı̨chǫ communities.

A. Assessment of each community's needs and access to alternate foods	Conduct a needs assessment for caribou and other country foods for each community: Wekweètì , Gamètì, Whatì and Behchokǫ̀ • For caribou harvest in 2010, determine the overall number of people who received fuel for the winter hunt. • Assessment of traditional uses of alternate food • Assessment of current access and use of alternate food source • Assessment of what community members need in order to access alternate species – knowledge, gas money, materials • Baseline data on alternate species

B. Assessment of effects of low caribou numbers on Tłı̨chǫ communities	Identify and evaluate the potential effects of reduced caribou hunting on a variety of social, cultural, and health/nutritional indicators in the communities
Cultural	• Limited hides for craft production – limited availability of traditional items for sale and personal use; impacts on self identity and loss of knowledge of how to produce crafts • Loss of cultural identity - ritual and spiritual practices restricted and lost over time.
Economic	• Increased pressure on household budgets; increased purchase of store-bought foods • Loss of income from sale of traditional crafts
Health	• Change in diet leading to increased store-bought food and increased diabetes, obesity and heart disease • Health related issues due to not getting out on the land • Impacts on elders
Social	Reduced hunting and on-the-land activities could lead to • Increased drinking and gambling • Increased domestic abuse and violence • Children getting into more trouble at school and with authorities

APPENDIX F **TK Research & Monitoring Program:** ***Special Project, Using Tłı̨chǫ Knowledge to Monitor Barren Ground Caribou***

Tłı̨chǫ Research and Monitoring Program

Using Tłı̨chǫ Knowledge to Monitor Barren-ground Caribou

Consultation, Verification and Program Design
Allice Legat
Camilla Nitsiza
Madeline Chocolate-Pasquayak

August 30, 2010

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Tłı̨chǫ Philosophy

Grand Chief Jimmy Bruneau directed the Tłı̨chǫ people to know both Western and Tłı̨chǫ knowledge so each Tłı̨chǫ citizen would be strong like two people. Bruneau's philosophy and direction was not new to the Tłı̨chǫ people, who have always been interested in the ways and knowledge of others. This philosophy has been noted in both their oral narratives and the journals of the trading post factors. Each tells of Tłı̨chǫ leaders learning the knowledge and negotiating techniques of trading post factors to ensure the best return for their people's furs. This philosophy is also evident - in oral narratives telling of activities leading up to discussions with the Federal Commissioner in 1921 when Möwhì signed Treaty 11. The stories explain that Tłı̨chǫ were aware of the European perspective based on information they acquired from the Slavey and Chipewyan further south. Upon learning from the experience of their southern neighbours they were better prepared to deal with the Treaty Party.

Tłı̨chǫ oral narratives stress the importance of understanding a problem, finding a solution and taking action. This approach to learning, knowing and taking action is evident in most Tłı̨chǫ oral narratives, as well as the manner in which past research projects were approached. The Tłı̨chǫ have rarely allowed others to do research to address a problem they wish to know about themselves. They insist that they take an active part in research and monitoring. Specifically the Tłı̨chǫ:

- Explained to the managers of Rayrock Mine (1950s) that their observations were indicators of serious problems in the environment. They identified problems that they observed with plants and wildlife –such as beaver, marten and fish. These problems were particularly evident to those Tłı̨chǫ who either used the area frequently or worked at the mine.
- Insist research focus on their needs and priorities – take for example the priorities set by the Dogrib Renewable Resources Committee during the early 1990s: where caribou, habitat, water and heritage were of greatest concern.
- Insist on adequate funding to ensure Tłı̨chǫ researchers were employed as permanent, full time employees for the life of research projects – take for example the Traditional Justice and Traditional Medicine project in Whatì (1987-92); the Traditional Governance project in Gametì (1993-1996); and the caribou and place names projects in all the Tłı̨chǫ communities (1996-2001).
- Use the participatory action research (PAR) method that includes researcher training; an elders – both male and female elders – committees; rigorous research methods carried out by Tłı̨chǫ researchers and overseen by the elders' committee; and verification of shared information. The PAR process ensures accurate understanding of the traditional knowledge that is documented and ensures it leads to positive actions based on the recommendations.

Today, it is vital that the Tłı̨chǫ lead by undertaking their own harvesting and monitoring studies as the impacts of development on Tłı̨chǫ lands and the environment are becoming ever more evident. The Tłı̨chǫ Government and co-management boards have been given the authority to

manage the land in the Tłı̨chǫ Agreement, but to do this effectively requires a system of Tłı̨chǫ knowledge (TK) research and monitoring that will feed into management decisions.

The *Special Project: Using Tłı̨chǫ Knowledge to Monitor Barren Ground Caribou* described below is based on Tłı̨chǫ philosophy and is part of the Tłı̨chǫ Knowledge Research and Monitoring Program. The description of this project follows the following format: first, the current issues, for which the TK program was designed to solve, are discussed. Second, the program structure, on which the caribou monitoring and collection of harvest information is a part, is described. These sections are followed by a summary of discussions with Tłı̨chǫ citizens that formulated the program outline. The Program Outline and Evaluation Framework for Monitoring Caribou from a TK Perspective can be found in the Appendix.

It should be noted that evaluation is done to ensure the best possible TK is being documented for future monitoring, education and understanding of the Tłı̨chǫ perspective. The purpose is not to pass judgement but to provide tools to fine tune the program to ensure TK is documented and used.

Current Issue

The Tłı̨chǫ Agreement directs co-management boards, government agencies and the Tłı̨chǫ Government to i) use traditional knowledge, ii) promote cultural perspectives, and iii) select Board members that have knowledge of Tłı̨chǫ way of life. Yet the current systems – most of which are based on Western perspectives and the British legal system – make it difficult for Tłı̨chǫ knowledge (TK) to be used in a manner that is consistent within the Tłı̨chǫ cultural perspective and way of life.

The Wek'èezhìi Renewable Resources Board in collaboration with the Tłı̨chǫ Government decided to develop and implement a program that would be a positive step towards using Tłı̨chǫ knowledge in manner that considers Tłı̨chǫ perspectives.

The Agreement states that:

Section 12.1.6

> *In exercising their powers under this chapter, the Parties and the Wek'èezhìi Renewable Resources Board shall take steps to acquire and use traditional knowledge as well as other types of scientific information and expert opinion.*

Section 13.1.5

> *In exercising their powers in relation to forest management, the Government of the Northwest Territories, the Tłı̨chǫ Government and the Wek'èezhìi Renewable Resources Board shall take steps to acquire and use traditional knowledge as well as other types of scientific information and expert opinion.*

Section 14.1.4

> *In exercising their powers in relation to the management of plants, the Government of the Northwest Territories, the Tłı̨chǫ Government and the Wek'èezhìi Renewable Resources Board shall take steps to acquire and use traditional knowledge as well as other types of scientific information and expert opinion.*

Section 22.1.7

> *In exercising their powers, the Mackenzie Valley Environmental Impact Review Board and the Wek'èezhìi Land and Water Board shall consider traditional knowledge as well as other scientific information where such knowledge or information is made available to the Boards.*

Furthermore, Section 12.5.5 of the Tłı̨chǫ Land Claim and Self-government Agreement (the Agreement) states that the Wek'èezhìi Renewable Resources Board (WRRB) shall:

> *(a) Make a final determination, in accordance with 12.6 or 12.7, in relation to a proposal*
>
> *i. Regarding a total allowable harvest level for Wek'èezhìi, except for fish,*

ii. Regarding the allocation of portions of any total allowable harvest levels for Wek'èezhìi to groups of persons or for specified purposes, or

iii. Submitted under 12.11.1 for the management of the Bathurst caribou herd with respect to its application in Wek'èezhìi;

The Tłı̨chǫ Agreement authorizes the WRRB the responsibility for total allowable harvest (TAH) for wildlife, forests and plants and authorizes the Minister of Fisheries and Oceans (DFO) responsibility for fish conservation and the establishment of TAH for fish stocks. Both WRRB and DFO have an obligation under terms of the Agreement to determine TAH through assessment studies and other research.

For WRRB and DFO to have information necessary for sustainable management it is imperative that the Tłı̨chǫ undertaken their own monitoring by documenting their observations and harvesting information to ensure they contribute to the process. If allocations are to be made among users of the resource it will be necessary to determine basic needs levels of the beneficiaries of the claim. Allocations of fisheries and wildlife resources will be difficult without this basic harvest information from the harvesters themselves.

For the Agreement to be honoured three activities need to occur:

1. Baseline information must be gathered from elders on known trends as harvest, wildlife and vegetation distribution.

2. Information gathered through Tłı̨chǫ traditional methods of monitoring needs to be documented on an on-going basis.

3. Realistic harvest studies need to be ongoing.

4. All collected information must be stored in such a way as to respect the provider of the knowledge.

5. Reports to co-management boards will be sent several times per year to insure it will inform their management decisions.

Although scientific information is readily available, most TK is in the minds of the elders and harvesters. For this reason, a program is needed so Tłı̨chǫ researchers can work with elders and harvesters to document their knowledge in a manner that does not lose the Tłı̨chǫ perspective. This is usually detailed knowledge of past conditions that they share with their descendants while sharing their current observations of wildlife and wildlife habitat. And, as is the traditional mode of sharing, numbers of species observed and harvested, are shared with others in the community along with other information such as behaviour of wildlife and the people harvesting. All information available is used to make management decisions.

One of the important features of Tłı̨chǫ knowledge is that it is acquired, enhanced and communicated on the land while people are engaged in land-based activities. It is also communicated after harvesters return to the community through oral narratives.

Modern harvest studies often ask harvesters to fill out survey forms in English, or to provide limited information that can be taken out of context. These studies may fail because they are not compatible with how Tłı̨chǫ knowledge, including information about harvest, is transmitted through oral narratives.

This project was designed to ensure that both monitoring and realistic harvesting numbers can be recorded in a culturally appropriate manner. This will help alleviate the problem that many respondents choose not to answer correctly the harvest study questions posed by non-community members.

Program Structure

The Tłı̨chǫ Knowledge Research and Monitoring Program is designed to capture knowledge in a manner that is compatible with the Tłı̨chǫ cultural perspective. It is also designed to acknowledge the continued importance of oral narratives as the medium with which to share information and the importance of Tłı̨chǫ land based activities in learning and being able to apply and promote Tłı̨chǫ knowledge.

Program Goals

A Tłı̨chǫ Knowledge Research and Monitoring Program will support goals that assist the Tłı̨chǫ Government, and the boards and agencies under the Tłı̨chǫ Agreement, to fulfill their mandate within the co-management regimes. It will also provide direction to industry and non- Tłı̨chǫ researchers on expectations and costs. The caribou monitoring and harvest study portion of this program will support the following program outcomes:

1. Tłı̨chǫ knowledge and perspectives are utilized in management and decision-making.
2. The Tłı̨chǫ Government and co-management boards have the information they need to play a strong role in co-managing the environment, and to support programs such as education.
3. The Tłı̨chǫ Government has its own information and reports to provide boards and government and information it needs to play a strong role in managing caribou and other wildlife, plants and forests.
4. Harvesting maintains its role as a respected and important economic and social endeavour.
5. Tłı̨chǫ knowledge, perspective and language are strengthened through oral narratives and land-based activities.
6. Integrated knowledge transfer is occurring across generations.
7. Tłı̨chǫ place names are documented accurately to express bio-geographical information, some of which are associated with caribou harvesting.

Social Impacts

If the program successfully achieving the above goals, it will help to support broader social impacts such as the following:

- Tłı̨chǫ citizens will fulfil their traditional responsibilities to care for the land.
- TK is transmitted in a manner that is compatible with Tłı̨chǫ culture and social structure.
- Tłı̨chǫ language is strong and used in daily conversations.
- Tłı̨chǫ citizens are emotionally and spiritually healthy.
- There is a structured process for Tłı̨chǫ youth to learn land-based skills and knowledge.
- Tłı̨chǫ place names become official.

Program Design and Implementation

The establishment of a fully developed, effective Tłı̨chǫ Knowledge Research and Monitoring Program is a necessary but ambitious undertaking. It will require substantial resources, careful planning and a long term commitment to allow it to be successful. It will also require investment in training and in information technology.

Using Tłı̨chǫ Knowledge to Monitor Barren Ground Caribou and document caribou harvest is a constructive first step towards the development of the program.

There are several activities that need immediate attention if the program is going to provide on-going information for caribou monitoring and management.

To ensure harvesters' and elders' observations, knowledge and harvest are documented and used, the following activities will be undertaken immediately when initiated in November 2010:

1. Establish a comprehensive database to support the organization and storage of Tłı̨chǫ monitoring and harvest data in a manner that is consistent with oral narrative and protocol;
2. Digitize and enter existing information into the database;
3. Establish operating procedures for the program, including human resource policies and procedures, compensation policies, and development of research methods;
4. Establish training programs for researchers and data entry clerks;
5. Hire and train staff;
6. Undertake promotion and outreach to ensure that communities understand and support the program, and that harvesters participate;
7. Establish community TK Elders' Committees;
8. Finalize the Tłı̨chǫ Knowledge Policy initiated through the Wek'eezhii forum for approval by the Tłı̨chǫ Government.

Tłı̨chǫ Knowledge Research and Monitoring Program
Summary Table of Proposed Structure

SOCIAL IMPACTS

- Tłı̨chǫ citizens will fulfil their traditional stewardship responsibilities to care for the land.
- Tłı̨chǫ knowledge is transmitted in a manner that is compatible with Tłı̨chǫ culture and social structure.
- Tłı̨chǫ language is strong and used in daily conversations.
- Tłı̨chǫ citizens are emotionally and spiritually healthy.
- There is a structured process for Tłı̨chǫ to youth learn land-based skills and knowledge.
- Tłı̨chǫ place names become official

GOALS

- Tłı̨chǫ knowledge and perspectives are utilized in management and decision-making.
- The boards and agencies mandated under the Tłı̨chǫ Agreement have the information they need to play a strong role in co-managing the environment and to support programs such as education.
- The Tłı̨chǫ Government has the information it needs to play a strong role in managing caribou and other wildlife, plants, forests and protected areas; and has its own information and reports to support bargaining and negotiations.
- Harvesting maintains its role as a respected and important economic and social endeavour.
- Tåîchô knowledge, perspective and language are strengthened through oral narratives and land-based activities.
- Integrated knowledge transfer is occurring across generations.
- Tåîchô place names are documented accurately to express bio-geographical information, and to support the process of acquiring official place name status.

ACTIVITIES

- Establish a comprehensive database to support the organization and storage of Tłı̨chǫ monitoring and harvest data in a manner that is consistent with oral narrative and protocol.
- Digitize and enter existing information into the database.
- Establish operating procedures for the program, including human resource policies and procedures, compensation policies, and development of research methods.
- Hire and train staff – research, data entry, etc.
- Undertake promotion and outreach to ensure that communities understand and support the program, and that harvesters participate.
- Establish an Elders' Committees to guide the programme.
- Develop a Tłı̨chǫ Knowledge Policy for approval by the Tłı̨chǫ Government.
- Evaluate the program to make sure it is achieving the goals.
- Implement culturally appropriate research and monitoring activities.

Caribou Monitoring and Harvest Study[1]

Section 12.5.5 of the Tłı̨chǫ Land Claim and Self-government Agreement (the Agreement) states that the Wek'èezhìi Renewable Resources Board (WRRB) shall:

(a) Make a final determination, in accordance with 12.6 or 12.7, in relation to a proposal

i. Regarding a total allowable harvest level for Wek'èezhìi, except for fish,

ii. Regarding the allocation of portions of any total allowable harvest levels for Wek'èezhìi to groups of persons or for specified purposes, or

iii. Submitted under 12.11.1 for the management of the Bathurst caribou herd with respect to its application in Wek'èezhìi;

Tłı̨chǫ oral narratives tell of the annual cycles in which caribou and fish are key resources. For example, spring camp sites were and continue to be located along known caribou migration routes, good fishing locations and places known to have birch trees. Tłı̨chǫ waited for the caribou during spring migration back to the barrens but if caribou choose a different route, the people had fish while building canoes that were used to travel trails that led to the barrens making them ready to harvest caribou when they once again crossed paths. Even on the barren grounds Tłı̨chǫ camps continue to be located near good fishing locations that are known to be on caribou migration paths. Like traditional harvesting camps, current communities are located on or near fisheries and areas caribou are known to travel <u>if</u> they are in the area. Both resources continue to be important to the well-being of Tłı̨chǫ – psychologically as well as physically.

Tłı̨chǫ elders and harvesters who participated in the West Kitikmeot Slave Study (WKSS) research entitled, '*Caribou Migration and the State of their Habitat'*, (2001) and who originally participated in the design of the TK Monitoring Program in 1999-2000, think it is long past time to monitor barren ground caribou. The oldest Tłı̨chǫ elders know the WKSS researchers – Georgina Chocolate and Bobby Gon - focused on oral narratives from the past that provided baseline information.

They emphasize the importance of continuing to collect the most senior elders' knowledge (baseline) given the hiatus of 10 years (2001-2010). In addition they want the caribou monitoring program to:

1. Document current observations of the harvesters.
2. Research and data input and report writing to be done by adults that use both Tłı̨chǫ and English, and
3. Participation of young people through their school, during the summer and during other school or university breaks.

Elders, harvesters and other members of households – whether young or old – continue to want the Tłı̨chǫ people and their government to maintain their responsibility to watch and care for (monitor and manage) the land, water and resources they use, observe and enjoy. They want

[1] The Caribou Monitoring and Harvest Study Project is a special project within the TK Research and Monitoring Program.

Tłı̨chǫ citizens to use traditional values and rule associated with caribou to manage their resources.

The Tłı̨chǫ Agreement authorizes the WRRB's the responsibility for total allowable harvest (TAH) for wildlife, forests and plants. WRRB has an obligation under terms of the Agreement to determine TAH through assessment studies and other research for caribou. WRRB is recommending caribou harvesting targets rather than a TAH. The success of this approach is dependent on having the information necessary for sustainable management. It is, therefore, imperative that the Tłı̨chǫ undertaken their own monitoring by documenting their observations and harvesting information to ensure they contribute to the process. If the Chiefs use the TK Research and Monitoring Program to oversee the documentation of caribou harvesting among their citizens during this time of low caribou populations it will easier for the Land Protection Department, Tłı̨chǫ Government to maintain the target within a reasonable range and to allocate caribou resources to those in need, and for WRRB to receive reliable up to date information and to evaluate the success of the target approach. Furthermore, when caribou population numbers are higher, and allocations of this resource are more widespread, it will be necessary to determine basic needs levels of the beneficiaries of the claim.

For the Agreement to be honoured five activities need to occur:

1. Baseline information must be gathered from elders on known trends as harvest, wildlife and vegetation distribution. This information should be documented so it can be used to determine trends as well as indicators of change.
2. Information gathered through Tłı̨chǫ traditional methods of monitoring needs to be documented on an on-going basis.
3. Realistic harvest studies need to be ongoing.
4. All collected information must be stored in such a way as to respect the provider of the knowledge.
5. Reports must be provided to co-management boards to insure informed decisions can be made.

Most Tłı̨chǫ knowledge is in the minds of the elders and harvesters. For this reason, a program is needed so Tłı̨chǫ researchers can work with elders and harvesters to document their knowledge in a manner that does not lose the Tłı̨chǫ perspective. The process would include a detailed knowledge of past conditions that are compared to current observations of caribou behaviour, fitness and interactions with predators and pests as well as landscape and vegetation use. And, as is the traditional mode of sharing information, numbers of species observed and harvested, are incorporated into oral narratives that are told in the community. All information available is used to make management decisions and determine the number of caribou to be harvested in the near future.

One of the important features of Tłı̨chǫ knowledge is that it is acquired, enhanced and communicated on the land while people are engaged in land-based activities. It is also communicated after harvesters return to the community through oral narratives.

Modern harvest studies often ask harvesters to fill out survey forms in English, or to provide limited information that can be taken out of context. These studies may fail because they are not compatible with how Tłı̨chǫ knowledge, including information about harvest, is transmitted through oral narratives.

This project was designed to ensure that both monitoring and realistic harvesting numbers can be recorded in a culturally appropriate manner. This will help alleviate the problem that many respondents choose not to answer harvest study questions posed by non-community members.

Finding a Solution

In 1999-2000, the Tłı̨chǫ Regional Elders' Committee – under the direction of *K'àowo*[2] Jimmy Martin – requested Dogrib Treaty 11 staff who were working with the elders to bring male and female harvesters from each community to discuss a Tłı̨chǫ monitoring program. Funding for this meeting was secured from Cumulative Impacts and Monitoring Program, Environment Canada. The elders and harvesters directed staff to initiate monitoring around the diamond mines – with research/hunting camps located in strategic locations around the mines that would enable harvesters to observe the behaviour of caribou in relation to the mines. They also suggested a camp be located at Gots'ôkàtì and Deèzhàatì so caribou behaviour could be compared with non-mining areas.

In September 2008, the Wek'èezhìi Renewable Resources Board (WRRB) and the Tłı̨chǫ Government initiated work towards implementing a Tłı̨chǫ knowledge monitoring program that the Land Protection Department of the Tłı̨chǫ Government and co-management boards mandated under the Tłı̨chǫ Agreement could use in their decision making.

The TK program design with associated policy guidelines were developed based on discussions held during the household visits made by the Project Team between April 2009 and December 31, 2009. All households in the three fly-in communities of Gametì, Wekweetì and Whatì were contacted. Behchokö has a significant population therefore only those households with active harvesters and elders were contacted. During these visits Tłı̨chǫ researchers, under the direction of Allice Legat, explained the importance of Tłı̨chǫ knowledge in the Tłı̨chǫ Agreement and the possibility of establishing a monitoring program as originally laid out by the elders and harvesters in 1999. Two Tłı̨chǫ researchers – Camilla Nitsiza and Madelaine Chocolate - did conducted the household visits, although Mary Adele Wetrade did assist Madelaine Chocolate in Gametì. Household visits took longer than anticipated because i) individuals wished to express their views after hearing the role of the WRRB as it is mandated in the Tłı̨chǫ Agreement; and ii) individuals were delighted to expound on the potential for harvesters and elders working together with Tłı̨chǫ researchers to monitor the land as first set out by the elders in 1999-2000. Their excitement at building on their traditional management practices was clear.

After completing household visits and analyzing Tłı̨chǫ responses, it became clear that it would be culturally appropriate to develop interview guidelines that allowed harvesters to share information in a manner similar to how they normally explain their harvest and observations to

[2] Translated as 'boss'. The role is significantly different than the Western concept for 'chair'.

one another and to their elders. The Tłı̨chǫ researchers found harvesters would prefer to discuss their activities – both observations (monitoring) and harvesting – in either a home or office setting, but at their own convenience. Finally, they found that harvesters thought if Tłı̨chǫ were doing the documenting and report writing they could then be assured: i) individual harvest numbers would remain confidential; ii) their information would be documented realistically; and iii) their observations would remain in the context within which their observations were made.

Following the household visits a Regional TK Elders/Harvesters Working Group (TK Regional Working Group) was established to complete the work.[3] Gametì Committee members thought that it would be better if Tłı̨chǫ from all four communities worked together from the start so they could address all issues together. Six (6) members on the TK Regional Working Group had been active on the TK Regional Elders Committee from 1996-2002 while the remaining ten (10) harvesters and elders were named by the Tłı̨chǫ WRRB members or Chiefs in consultation with elders. The Working Group meetings were held between January and March 31, 2010: three in Gametì, [4] one in Wek'weetì, and one in Behchokö.

The following is a summary of how discussions at the household level and at the TK Regional Working Group meetings have informed key components of the TK caribou monitoring and harvest study approach.

Species Important to Local Harvesters

Caribou and fish are always cited as key species. Nevertheless, all Tłı̨chǫ elders and harvesters explain – as is consistent with members of hunting and gathering societies – that all species are important, including human. They also explained that if one is to understand trends and impacts within Wek'èezhìi, human behaviour should be monitored noting what is being harvested by both male and female harvesters and whether or not all is used. [5]

Tłı̨chǫ Harvesting information to be Documented

During conversations at the household level, it became apparent that many younger people felt they did not know enough about the environment to speak with their local researchers, but did think that they could report what they had harvested and observed as long as older, more experienced elders and harvesters were present to help them to understand their observations. Specifically younger people thought that if elders and harvesters were present they would gain a

[3] Members of the Regional Working Group are Romie Wetrade, Laiza Mantla, Louis Zoe and Mary Adele Wetrade (with Fred Mantla attending in place of Mary Adele Wetrade) from Gametì; Pierre Beaverhoe, Dora Nitsiza, Robert MacKenzie Sophia Williah, and Francis Simpson from Whatì; and Elizabeth Michel, Robert MacKenzie, Harry Mantla and Eddy Weyellan from Behchokǫ̀; and Jimmy Kodzin, Elizabeth Whane, Rosa P'ea, Elizabeth Arrowmaker. The Working Group members decided that since the working group was short term if someone missed a meeting – for any reason – they would not continue.

[4] Under the direction of John B. Zoe, TEO, a TK Office has been established in Gametì. However office furniture and computers have yet to be purchased and staff has yet to be hired.

[5] Although not discussed during the household visits or during the meetings, most elders and active harvesters suggest that human activities associated with industrial development and exploration should be monitored by stewards of the land.

better understanding of how their observations were similar or different than the past and how their own knowledge and behaviour impacts wildlife, particularly caribou.

Most of the elders and harvesters participating in the TK Regional Working Group thought leaders should tell harvesters to report their observations of caribou (and other wildlife) behaviour, fitness, number of young, etc as well as the number they harvested.

Discussion outside the formal structure of the TK Regional Working Group, the researchers discussed the importance of continuous 'watching caribou', and teaching the young about caribou behaviour and rules governing their behaviour around caribou; and, that caribou should be observed whether hunting is taking place or not.

Sharing Information

Throughout all discussions it became clear that community members would be more open about sharing their harvesting information as well as their observations if they understood that their oral narratives and their observations - 'raw data' - would remain with and be safeguarded by the Tłı̨chǫ Government, and kept in the Tłı̨chǫ communities.

Several individuals expressed that they feel they are being "checked-up on" when non- Tłı̨chǫ ask questions and are worried that it can be used against them.

Schedule of Interviews

Based on the manner in which Dene pass information, it was made abundantly clear during household visits and during the TK Regional Working Group meetings, that oral narratives are the process for sharing detailed information. (see also Basso, Cruikshank, Goulet, and Sharp on the importance of oral narratives among all Dene). For this reason the researchers will be trained to use an interview guide while documenting information shared by harvesters.

Researchers thought the oral narratives of the harvest and associated observations should be documented within two days of the harvester returning to the community.

Expectations of Harvesters and Elders

All Tłı̨chǫ citizens with whom the researchers spoke liked the idea that monitoring skills and harvesting information would be given back to the community every few months – by the Tłı̨chǫ researchers. They thought the communities could benefit from hearing this information and verifying the researchers' interpretations so misunderstandings could be clarified.

The TK Regional Working Group thinks that reporting back to the community at public meetings is extremely important. If the researchers share a summary of what they have heard with the community, then harvesters will be more likely to provide their observations and harvest numbers. They reasoned that the harvesters would know they were being heard and that their knowledge and information was being documented accurately. For example,

1. Their observations of the environment – health of caribou, state of the landscape and vegetation caribou use – are being heard and understood.
2. Harvesters will feel secure that harvesting data is correct, and their elders and leaders can use the information for management discussions with WRRB and the GNWT.

Compensation for Harvesters

This has not been discussed with harvesters during the household visits or at the elders and harvesters meetings. During past discussions with elders, it was thought that harvesters should report on a volunteer basis, but should be compensated when attending the verification and sharing meetings when more information on their observations can be noted. Only those harvesters who participated on a volunteer basis would be compensated at the verification and working group meetings.

It is proposed that this is a decision for the Tłı̨chǫ leadership after being discussed at a Tłı̨chǫ Assembly, recognizing that availability of resources may be a constraint.

Reporting

Since using Tłı̨chǫ knowledge in caribou management is important to Tłı̨chǫ, it is recommended that after the researchers hold verification meetings with elders and harvesters, reports be written for the WRRB as well as for the Chief Executive Council and the Territorial governments.

Reports will be sent to Boards, Governments and Land Protection Department at least three times per year.

Duration of Harvest Study within Monitoring Program

During the household visits and the TK Regional Working Group meetings, the vast majority (young people did not speak to this topic) of Tłı̨chǫ citizens thought the caribou harvest study within the TK monitoring program should be on-going. They also thought reporting on harvest should be on-going.

Activities Specific to Caribou Monitoring and Caribou Harvest Study

Basically the steps to traditional monitoring and documenting information on caribou are as follows:

- Harvesters have been taught since the time they were young to observe all that is around them and to consider their observations in relation to what they are harvesting, and in relation to all other aspects of their environment. It is these observations as well as information about their harvest that the researchers will document through digital recording and by entering key information into the data base.
- As researchers listen to harvesting accounts of the harvester, they will have an interview guide that they will use to mentally check off information, and as they enter key information into the data base. If necessary the researcher will ask the harvester for additional information, but only after they have shared their observations through a narration of their experience.
- Through hunting and through use of the caribou harvested both male and female harvesters will note the behaviour of caribou in various situations and note texture, smell and taste of meat and characteristics of hides, bones, etc. Researchers are responsible for acquiring and documenting all information of caribou.
- Researchers will mark the location of the harvester's observations and their harvest.
- Researchers will note number of caribou harvested, locations, age, sex, fitness, etc.
- Researchers will note information on wolf numbers associated with caribou as well as numbers harvested and fitness levels.
- Researchers will listen to the digital recording of the account and enter relevant information into the data base. They will also note additional questions for future reference, and, if necessary, they will visit the harvester for clarification.
- Researchers will search the data base for additional caribou information from that location, and begin developing a compilation of the information contained in the oral narratives.
- Harvesters will note and share through their oral narrative the condition of the environment, including landscape, vegetation, moist, snow depth, etc.
- If appropriate will compare their observations with reports available from the YK Dene, Kugluktuk and Lutselk'è who traditionally hunted in the region. Comparisons will be done by academic researcher in conjunction with community researchers.
- Since very few harvesters will be hunting caribou over the next several years the following activities are examples of information documented by researchers:

Autumn Migration

- Active male and female harvesters will travel to known water crossings
  - monitor caribou as they cross,
  - note number of calves, cows and bulls,
  - note direction of migration,
  - note number of wolves and other predators.
- Tłı̨chǫ citizens – elders, harvesters, researchers and youth – travel to Gotsak'atì to observe caribou
- Active male and female harvesters will travel to Æek'atì (Lac de Gras) area and observe caribou after leaving the Diavik and BHP claim blocks, around Æots'ik'è, Æek'atìtata

Wintering Areas

- Elders will select places to observe caribou behaviour in those areas, and to note additional aspects of fitness if harvesting caribou.
- Harvesters will also observe the state of the winter habitat

Spring Migration

- Active male and female harvesters will travel to places where caribou fences were located to observe the number of caribou (and gender and age) that travel through the area. In addition the harvesters will note fitness level. If caribou are taken, contents of their stomach and vegetation in mouths and in stools will be noted, as well as texture and smell of meat and state of hides, bones, and hair.
- Harvesters will do a visual appraisal for pregnancy and report pregnancy from the cow harvest.
- Harvesters will note number of wolves associated with the herds.
- Harvesters will note behaviour associated with pests.
- Active male and female harvesters should also travel to Gostak'atì, Dezaahtì to observe caribou at that stage of their migration.

Summer: Post Calving Area

- Elders will advise on where active male and female harvesters should travel to observe bull, cows and calf behaviour in their summer habitat assessing abundance at key locations.
- Harvesters also observe predators, insect levels, and other factors impacting caribou distribution, fitness and migration.

Project Structure: Activities and Products

	SPECIAL PROJECT ACTIVITIES ***(What needs to be done)***	***PRODUCTS*** ***(What we hope to achieve)***
Data Base	Researchers enter harvest information into database the same day they hear and document it Maintain and update database regularly after each interview Produce reports regularly and review at community meetings and with Elders' Committee Produce reports in response to requests	• Database is up to date and capable of creating reports upon demand • Baseline information is available for environmental assessments, and environmental management • The collections of Tłı̨chǫ knowledge is expanded as new information is entered into the database • Realistic and current Tłı̨chǫ information on caribou and their habitat • Understand annual resource use -when low numbers of caribou • Ability to compare current caribou information with past: -is there a trend? -are caribou being impacted – if so what from what?
Training	On-going training for program staff to ensure they are effective researchers and cultural interpreters	• Trained TK community researchers are available to work with harvester and elders. • Database administrator is trained to maintain the database. • Staff have the skills to: o Efficiently document interviews. o Use interview guidelines. o Maintain archives. o Produce reports. o Identify similarities and differences between the Tłı̨chǫ and western management concepts and terms.

	SPECIAL PROJECT ACTIVITIES ***(What needs to be done)***	***PRODUCTS*** ***(What we hope to achieve)***
TK Elders' Committee/s	Tłı̨chǫ elders provide on-going guidance to the program	• Elders' Committee is functioning effectively • Elders play a meaningful role in all phases of program operations • Elders work with Tłı̨chǫ citizens to reinstate their traditional roles and responsibilities
Culturally Appropriate Research and Monitoring Methodology	**Interview and community meeting guidelines** -specific to caribou monitoring , caribou harvest and caribou habitat and loss of habitat due to fires and development Monitoring by harvesters • While harvesting • Specific to water crossings, caribou fence area, visit fire areas • If not harvesting caribou, then a form of compensation. Training specific to project • Caribou terminology • Laws and rules • Caribou management plan Hold caribou meeting once every two months	• Realistic and current Tłı̨chǫ information on caribou and their habitat. • Ensure trends are well documented, not hearsay • Detailed current Tłı̨chǫ information on caribou and their habitat that can be discussed – in Tłı̨chǫ – between elders and harvesters with researchers documenting. • Ability to work efficiently • Realistic and current Tłı̨chǫ information on caribou and their habitat • Information available to write report on caribou observations

	SPECIAL PROJECT ACTIVITIES ***(What needs to be done)***	***PRODUCTS*** ***(What we hope to achieve)***
Promotion and Outreach	Elders visit households and explain what can be used in lieu of caribou	• Traditional use of resources due to ebb and flow of environment • Traditional sharing of information • More likely harvesters will visit and report harvest and observations
	Chiefs sit with Tłı̨chǫ Knowledge Research and Monitoring Elders' Committees to go over restriction on and allocations of caribou harvest	• Elders Committee supports Chiefs' allocation on caribou harvest and their decision to monitor using elders and harvesters
	Project Directors explains monitoring process to chiefs and council with elders present Academic paper for journal and presented at appropriate conference	• Unique methodology and process is shared • Researchers experience discussions on what they are doing outside their communities

	SPECIAL PROJECT ACTIVITIES *(What needs to be done)*	*PRODUCTS* *(What we hope to achieve)*
Program Administration	**Budget for this project** **Fundraising** **Protocol for sharing reports with WRRB etc,** **Guidelines for verifying information in reports** **Hire researchers**	• **Ability to carry out realistic fundraising** • **Sufficient money to monitor caribou and harvesting** • **Ensure research is rigorous** • • **Ensure results are not hearsay but based on Tłı̨chǫ knowledge and perspective** • **Special project will enhance long term goals of TK programme** • **Ensure use of information from Caribou migration and state of habitat project** • **Ensure data is collected and available to be used**