Report on a Public Hearing
Held by the
Wek'èezhìı Renewable Resources Board
6-8 April 2016
Behchoko, NT

&

Reasons for Decisions Related to a
Joint Proposal for the Management of
the Bluenose-Eastʔekwǫ̀
(Barren-ground caribou) Herd

PART A

Wek'èezhìı
Renewable Resources Board

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LIST OF ACRONYMS

ACCWM	Advisory Committee for Cooperation on Wildlife Management
CI	Confidence Interval
DFN	Délı̨nę First Nation
ENR	Environment & Natural Resources
GNWT	Government of the Northwest Territories
HTA	Hunters' and Trappers' Association
INAC	Indigenous and Northern Affairs Canada
IR	Information Request
NSMA	North Slave Métis Alliance
NT	Northwest Territories
SRRB	Ɂehdzo Got'ı̨nę Gots'ę́ Nákedı/Sahtú Renewable Resources Board
TAH	Total Allowable Harvest
TG	Tłı̨chǫ Government
TK	Traditional Knowledge
WRRB	Wek'èezhìı Renewable Resources Board

LIST OF TŁĮCHǪ TERMS

dè, Ndè	land
dìga	wolf
ɤekwǫ̀	barren-ground caribou
Ɂı̨ts'èetì	Hottah Lake
Kǫk'èetì	Contwoyto Lake
łiwe	fish
Mǫwhì Gogha Dè Nı̨ı̨tłèè	traditional area of the Tłı̨chǫ, described by Chief Monfwi during the signing of Treaty 11 in 1921
Wedàèlı̨amı̨hk'è	Wedàę̀lı̨a net site
wedzıh	biggest male ɤekwǫ̀
Wek'èezhìı	management area; within the boundaries of
yaagoa	younger bull; third year male ɤekwǫ̀
Délı̨nę̀got'ıne	Dene of Délı̨nę
Sahtúgot'ine	Dene of Great Bear Lake

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 managing and monitoring the Bluenose-East *ʔekwǫ̀* (barren-ground caribou) herd. In November 2015, the Department of Environment and Natural Resources (ENR), Government of the Northwest Territories (GNWT) reported that, in their view, the Bluenose-East herd had continued to decline significantly and that further management actions were required.

In December 2015, the Tłı̨chǫ Government (TG) and ENR submitted the *Joint Proposal on Management Actions for Bluenose-East Caribou 2016-2019* to the Board, which proposed new restrictions on hunter harvest, predator management and ongoing monitoring. More specifically, TG and ENR proposed implementing a herd-wide total allowable harvest of 950 bulls-only and allocation for the Bluenose-East caribou herd and conducting a feasibility assessment of a full range of *dìga* (wolf) management actions. The WRRB considers any specific restriction of harvest or component of harvest as the establishment of a total allowable harvest (TAH). After review and analysis of the proposal, the WRRB complied with Section 12.3.10 of the Tłı̨chǫ Agreement and held a public hearing in Behchokǫ̀, NT on April 6-8, 2016.

The WRRB concluded, based on all available Aboriginal and scientific evidence, that a serious conservation concern exists for the Bluenose-East ʔekwǫ̀ herd and that additional management actions are vital for herd recovery. However, in order to allow careful consideration of all of the evidence on the record and to meet legislated timelines, the WRRB decided to prepare two separate reports to respond to the proposed management actions in the joint management proposal.

This first report, Part A, will deal with the proposed harvest management actions that will require regulation changes in order for new regulations to be in place for the start of the 2016/17 harvest season, as well as the proposed dìga feasibility assessment. The second report, Part B, will deal with additional predator management actions, biological and environmental monitoring, and cumulative effects.

In anticipation of the proposal, the ʔehdzo Got'ı̨nę Gots'ę́ Nákedı/Sahtú Renewable Resources Board (SRRB) and the WRRB signed a *"Memorandum of Understanding Regarding Collaborative Efforts for the Management of the Bluenose-East Caribou Herd"* in October 2015 to ensure management of proceedings related to the Bluenose-East ʔekwǫ̀ herd would be as effective as possible. Each Board conducted its own proceeding, including public hearings in both the Sahtú and Wek'èezhìı areas. Each Board will submit its own Reasons for Decision report.

In making its decision about harvest limitations, the WRRB considered the risks to the herd from a recent high rate of decline, uncertainties about the underlying mechanisms for the decline and the importance of ʔekwǫ̀ for food security and cultural strength.

Additionally, evidence from the Tłı̨chǫ elders and public suggested a willingness to restrict harvesting, and leave the ʔekwǫ̀ alone. Therefore, the WRRB determined that a TAH of 750 bulls-only shall be implemented for all users of the Bluenose-East ʔekwǫ̀ herd within Wek'èezhìı for the 2016/17, 2017/18, 2018/19 harvest seasons. Further, the Board determined that that the proportional allocation of the TAH of the Bluenose-East ʔekwǫ̀ herd for the 2016/17, 2017/18, 2018/19 harvest seasons shall be as follows: Tłı̨chǫ Citizens – 39.29%, and Members of an Aboriginal people who traditionally harvest Bluenose-East ʔekwǫ̀ (including Nunavut) – 60.71.

As monitoring of the ʔekwǫ̀ wildlife management units and Bluenose-East ʔekwǫ̀ harvest are intricately linked to the implementation of a TAH, the Board recommended that TG and ENR agree on an approach to designating zones for aerial and ground-based surveillance throughout the fall and winter harvests seasons from 2016 to 2019. These harvest management actions are to be implemented by July 1, 2016, the start of the 2016/17 harvest season. Additionally, the WRRB recommended weekly communication updates, timely implementation of hunter education programs for all harvesters of the Bluenose-East herd and development of harvesting overlap agreements with the Sahtú and Nunavut.

The WRRB also recommended that the dìga feasibility assessment set out in the proposal be led by the Board with input and support from TG and ENR. The feasibility assessment would primarily be an examination of all options for dìga management, including costs, practicality and effectiveness. The Board requested that this assessment be initiated in June 2016. If the Community-based Dìga Harvesting Project is deemed successful on the Bathurst ʔekwǫ̀ herd, the approach could be extended in 2016-2017 to the Bluenose-East herd and incorporated into an adaptive wolf management approach.

2. INTRODUCTION

2.1 The WRRB and Management of the Bluenose-East ʔekwǫ̀ (Barren-ground 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 Bluenose-East ʔekwǫ̀ herd. On December 15, 2015, TG and ENR submitted the *"Joint Proposal on Management Actions for Bluenose-East Caribou 2016-2019"* (Appendix A) to the WRRB outlining proposed management actions for the Bluenose-East ʔekwǫ̀ herd in Wek'èezhìı, including new restrictions on hunter harvest, predator management and ongoing monitoring. The short-term goal of the proposed management actions is to stop the herd's decline and promote recovery, over the period of November 2016-November 2019; a long-term goal of herd recovery is that sustainable

[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").

harvesting that meets community needs levels is once again possible within Mǫwhì Gogha Dè Nıı̨tłèè.

2.2 Prioritization and Organization of Decisions and Recommendations

In order to allow careful consideration of all of the information on the record and to meet legislated timelines, the WRRB has decided that prioritization and organization of its decisions and recommendations is necessary. The Board will prepare two separate reports to respond to the proposed management actions in the joint management proposal.

This first report, Part A, will deal with the proposed harvest management actions that will require regulation changes in order for new regulations to be in place for the start of the 2016/17 harvest season, as well as the proposed dìga feasibility assessment.

The second report, Part B, will deal with additional predator management actions, biological and environmental monitoring, and cumulative effects. The Board expects to submit its second report to TG and ENR no later than August 31, 2016.

2.3 WRRB Governance

2.3.1 Mandate & Authorities

The WRRB is a co-management tribunal established to perform the functions related to wildlife, forest, plant and protected areas management in Wek'èezhìı (Figure 1) set out in the Tłı̨chǫ Agreement. The Board's legal authorities came into 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.

[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 Tłı̨chǫ Agreement.

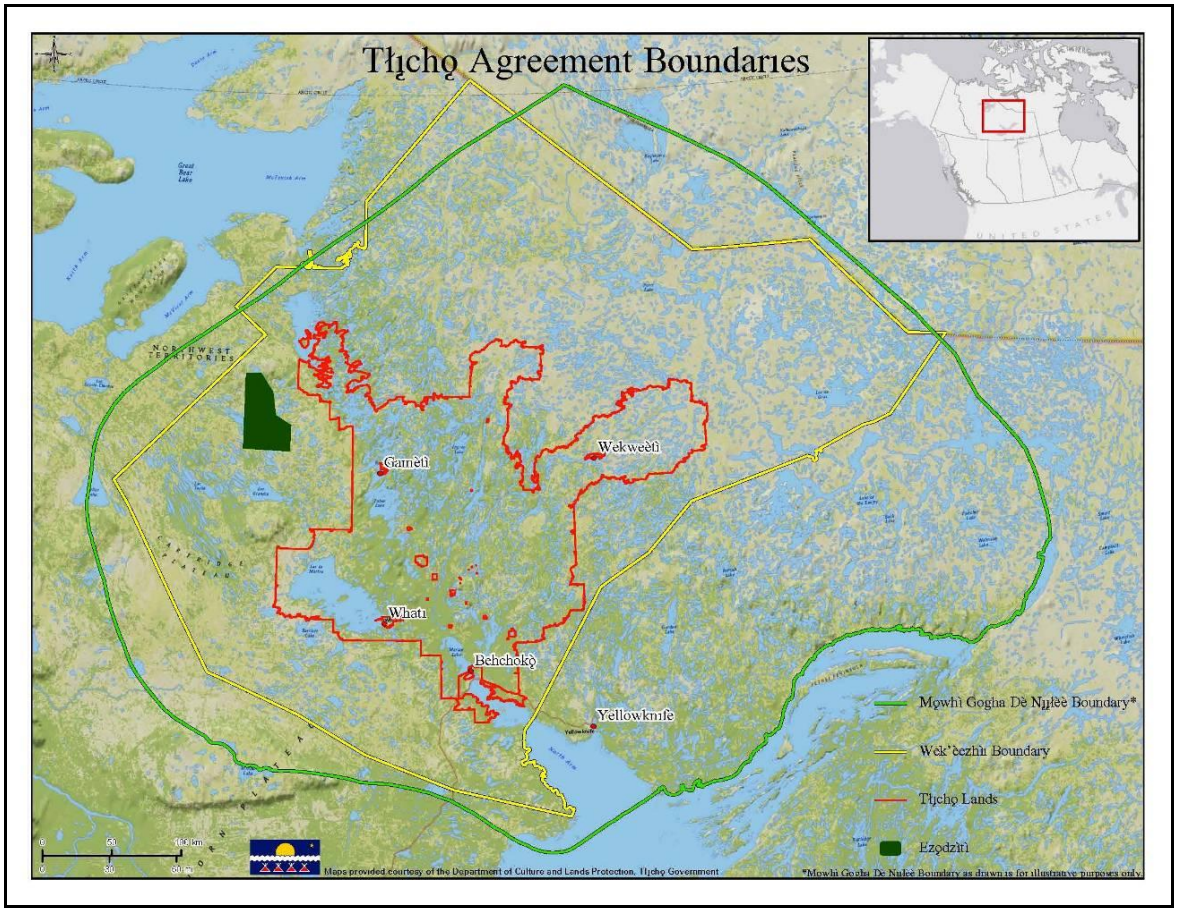

Figure 1: Wek'èezhìı Management Area.[3]

As required by Sections 12.5.1 and 12.5.4 of the Tłı̨chǫ Agreement, any Party[4] proposing a wildlife management action in Wek'èezhìı must submit a management proposal to the WRRB for review. This includes the establishment of a TAH. Prior to making a determination or recommendation, the WRRB must consult with any body that has authority over that wildlife species both inside and outside of Wek'èezhìı. Under the Section 12.5.5 of the Agreement, the WRRB has sole responsibility for making a final determination with respect to a total allowable harvest for Wek'èezhìı. Such action may only be taken for the purposes of conservation.

> ***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*

[3] Department of Culture & Lands Protection, Tłı̨chǫ Government. 2014.
[4] As defined in the Tłı̨chǫ Agreement, "Parties" mean 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.

(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, which makes its decisions on the basis of consensus. The WRRB works closely with Tłı̨chǫ communities, TG, and ENR. The Board also collaborates with other territorial government departments, such as Lands and Industry, Tourism and Investment, and federal government departments, such as Environment and Climate Change Canada, Fisheries and Oceans Canada, and Indigenous and Northern Affairs Canada (INAC). In addition, the WRRB works with other wildlife management authorities, Aboriginal organizations and stakeholders.

Wildlife management is a central and vital component of the Tłı̨chǫ Agreement.[5] The rights of Tłı̨chǫ citizens to use wildlife for sustenance, cultural and spiritual purposes are protected by the Tłı̨chǫ Agreement and the Constitution[6], subject to the management framework 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*

[5] See Section.12.1.1 of the Tłı̨chǫ Agreement.
[6] *Constitution Act.* 1982. Section 35.

where there is any other measure by which that objective could reasonably be 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 is bound by the Tłı̨chǫ Agreement if it is contemplating any limitation to Tłı̨chǫ citizens' harvesting, including any limitation to the harvesting of Bluenose-East ʔekwǫ̀. 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 citizens' harvesting rights set out in the Tłı̨chǫ Agreement, the WRRB is also bound by the procedural requirements therein and the requirements of fairness. Section 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 Bluenose-East ʔekwǫ̀ herd.

2.3.2 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'èezhìı 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. In 2009, the WRRB developed an Interim Rule for Management Proposals as a guide for making management proposal submissions, including actions taken in the issuance of licences, permits and other authorizations. The Board sought advice from all Parties to the Tłı̨chǫ Agreement to ensure that the actions, timelines, process and reporting requirements within the Rule would be practicable. In 2013, the Board finalized its Rule for Management Proposals.

In anticipation of management proposal submissions in 2015 and 2016 related to ʔekwǫ̀, the Board reviewed, and subsequently revised its Rule. At its September 2015 meeting, the WRRB approved the revised Rule for Management Proposals.[7]

2.3.3 Taking Care of Caribou – The Cape Bathurst, Bluenose-West, and Bluenose-East Barren Ground Caribou Herds Management Plan

The Advisory Committee for Cooperation on Wildlife Management (ACCWM) was established to exchange information, help develop cooperation and consensus, and make recommendations regarding wildlife and wildlife habitat issues that cross land claim and treaty boundaries. The committee consists of Chairpersons (or alternate appointees) of the Wildlife Management Advisory Council (NWT), Gwich'in Renewable Resources Board, SRRB, WRRB, Kitikmeot Regional Wildlife Board, and Tuktut Nogait National Park Management Board.

These wildlife management boards have authority through their land claim agreements to make recommendations and decisions on wildlife management issues. The ACCWM can make consensus-based recommendations to governments, land use regulators, and respective Boards on general types of wildlife management actions. ACCWM recommendations do not prohibit individual boards from providing additional recommendations, nor are individual boards bound by ACCWM recommendations.

The ACCWM decided to develop a management plan for the Cape Bathurst, Bluenose-West, and Bluenose-East ʔekwǫ̀ herds, entitled *"Taking Care of Caribou – The Cape Bathurst, Bluenose-West, and Bluenose-East Barren Ground Caribou Herds Management Plan"*. The management plan is supported by two companion documents: a report that summarizes recent scientific information about the herds, and a report that provides a summary of the information that was shared during community meetings to develop the plan.

While the immediate need for the management plan was in response to reported declines in the herds, the intent is to address ʔekwǫ̀ management and stewardship over the long term. The management goals are to maintain herds within the known natural range of variation, conserve and manage caribou habitat, and ensure that harvesting is respectful and sustainable. The plan describes the consensus-based approach, herd definitions, principles, and goals that guided the process. It provides a framework for monitoring the herds, making decisions, and taking action. Five different categories of management actions are outlined in the plan, including Education, Habitat, Land Use Activities, Predators and Harvest Management.

[7] http://wrrb.ca/sites/default/files/Rev%20FINAL%20Rule%20-%20Management%20Proposals%20-%2023sep15_0.pdf

Submitted to TG, GNWT and the Government of Nunavut in November 2014, the management plan is a working document used in developing specific management tools such as action plans for Cape Bathurst, Bluenose-West, and Bluenose-East barren-ground caribou. The action plans will provide details on the types of actions that are recommended based on a herd's status, as well as who is responsible for the actions, and when they should be done. The action plans are currently being developed by the ACCWM, with the Bluenose-East Caribou Herd Action Plan to be submitted to governments in summer of 2016. Both the management plan and subsequent action plans will be updated and revised as new information becomes available.

2.4 Collaborative Memorandum of Understanding with SRRB

On December 15, 2015, ENR submitted a management proposal, entitled *"Government of the Northwest Territories Proposal on Management Actions for Bluenose-East Caribou 2016-2019"*, to the SRRB, which proposed management actions for the Bluenose-East ʔekwǫ̀ herd in the Sahtú Settlement Area, including new restrictions on hunter harvest, predator management and ongoing monitoring. The SRRB initiated its Bluenose-East Caribou Management Proceeding – March 2016 on January 11, 2016.

In anticipation of the proposals, the SRRB and WRRB signed a *Memorandum of Understanding (MOU) Regarding Collaborative Efforts for the Management of the Bluenose-East Caribou Herd* (Appendix B) on October 27, 2015 to minimize duplication, increase consistency and ensure management of the Bluenose-East caribou herd is as effective as possible. The Board agreed to establish and maintain linked public records and to collaborate in the conduct of their proceedings prior to making final decisions under their respective jurisdictions. The WRRB attended the SRRB's hearing in Délı̨nę in early March 2016; the SRRB attended the WRRB hearing in Behchokǫ̀ in early April 2016.

3. PREVIOUS WRRB RECOMMENDATIONS RELATED TO BLUENOSE-EAST ʔEKWǪ̀ (BARREN-GROUND CARIBOU) MANAGEMENT

3.1 2010 Proceeding

On November 5, 2009, TG and ENR submitted the *Joint Proposal on Caribou Management Actions in Wek'èezhìı*, which proposed nine management actions and eleven monitoring actions, including harvest limitations, for the Bathurst, Bluenose-East and Ahiak ʔekwǫ̀ herds. While there was agreement on the majority of actions proposed, there was no agreement reached on the proposed levels of Aboriginal harvesting.

Upon review of the proposal, the WRRB held that any restriction of harvest or component of harvest to a specific number of animals would constitute a TAH. Thus, the Board ruled that it was required to hold a public 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, which prescribed limitations on harvest. All other proposed actions were addressed through written submissions to the Board.

On January 1, 2010, ENR implemented interim emergency measures, which included the closure of ʔekwǫ̀ commercial, outfitted[8] and resident harvesting in the North Slave regions. In addition, all harvest was closed in a newly established no-hunting conservation zone (Figure 2). This decision was made by the Minister of ENR under the authority of Section 12.5.14 of the Tłı̨chǫ Agreement. The Board was informed of the Minister's decisions on December 17, 2009.

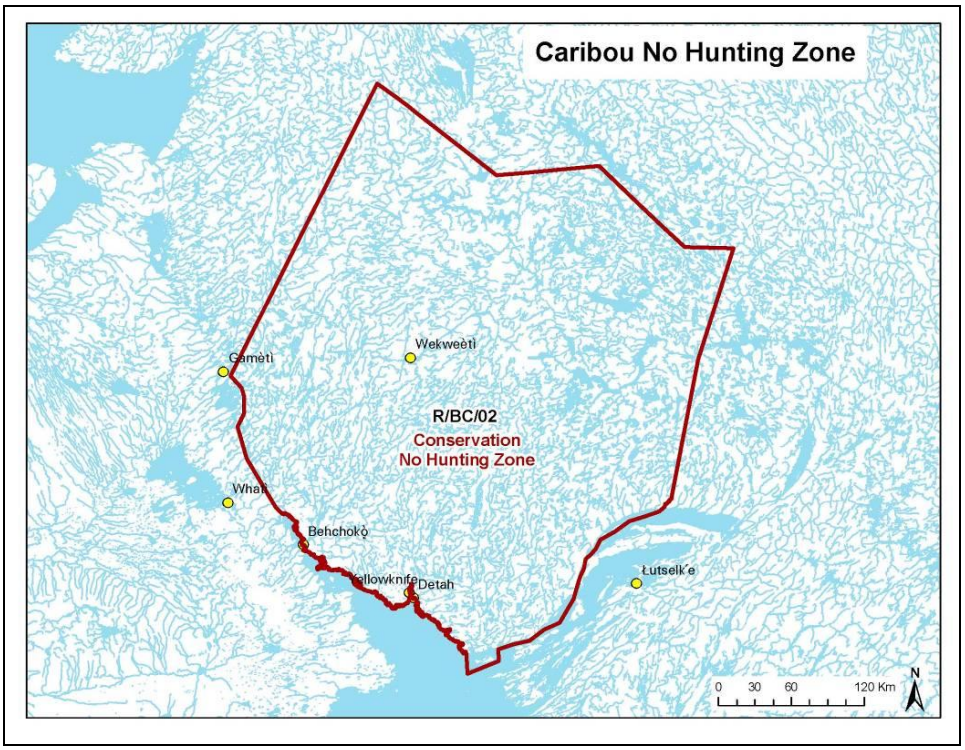

Figure 2: No-Hunting Conservation Zone, R/BC/02, January 1, 2010 to December 8, 2010.[9]

Originally scheduled for January 11-13, 2010, the public hearing took place March 22-26, 2010 in Behchokǫ̀, NT. Once the evidentiary phase of the proceeding was completed, TG requested the WRRB adjourn the hearing in order to give TG and ENR time to work collaboratively to complete the joint management proposal. The Board agreed to grant

[8] Non-residents and non-resident aliens require an outfitter to hunt big game (but not small game). Outfitters provide licenced guides for the hunters they serve. A non-resident is a Canadian citizen or landed immigrant who lives outside the NWT or has not resided in the NWT for 12 months; a non-resident alien is an individual who is neither an NWT resident nor a non-resident. ENR. 2015. Northwest Territories Summary of Hunting Regulations, July 1, 2015 to June 30, 2016.

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

the application for adjournment with the condition that any revised proposal be filed by May 31, 2010 and that such a proposal address both harvest numbers and allocation of harvest for both the Bathurst and Bluenose-East ʔekwǫ̀ herds.

On May 31, 2010, TG and ENR submitted the *Revised Joint Proposal on Caribou Management Actions in Wek'èezhìı*. This revised proposal changed the original management and monitoring actions and incorporated an adaptive co-management framework and rules-based approach to harvesting. TG 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 revised proposal. Therefore, the WRRB reconvened its public hearing on August 5-6, 2010 in Behchokǫ̀, NT, where final presentations, questions and closing arguments were made.

3.2 2010 Board Decision

On October 8, 2010, the WRRB submitted its final recommendations and reasons for decision report to TG and ENR. Many of the recommendations were related to the Bathurst ʔekwǫ̀ herd and relevant management actions vital for herd recovery, including harvest restrictions.

The Board recommended a harvest target of 2800 (± 10%) Bluenose-East ʔekwǫ̀ per year for harvest seasons 2010/11, 2011/12, and 2012/13 in Wek'èezhìı. Further, the Board recommended that the ratio of bulls harvested to cows should be 85:15. Although the evidence suggested that the Bluenose-East herd had not continued to decline, the Board concluded that a limited harvest of 2520-3080 ʔekwǫ̀ with 420 or fewer cows was a cautious management approach based on the current herd size and trend.

The Board recommended that all commercial, outfitted and resident harvesting of the Bluenose-East ʔekwǫ̀ herd in Wek'èezhìı be set to zero. The Board also made harvest recommendations for the Ahiak ʔekwǫ̀ herd.

The WRRB made additional ʔekwǫ̀ management and monitoring recommendations to TG and ENR, specifically implementation of detailed scientific and Tłı̨chǫ knowledge monitoring actions and implementation of an adaptive co-management framework.

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

The WRRB was requested to make recommendations to TG and ENR regarding dìga. The Board recommended that the harvest of dìga should be increased through incentives but that focused dìga control not be implemented. If TG and ENR were to contemplate

focused dìga control in the future, a management proposal would be required for submission to the WRRB for its consideration.

The Minister's emergency interim measures remained in effect until the WRRB's recommendations on ʔekwǫ̀ management in Wek'èezhìı were implemented on December 8, 2010. On January 13, 2011, TG and ENR responded to the Board's recommendations, accepting 35, varying 22 and rejecting three of the 60 recommendations. TG and ENR submitted an implementation plan to the WRRB on June 17, 2011, which the Board formally accepted on June 30, 2011 (Appendix C).

4. SUMMARY OF CURRENT PROCEEDING

4.1 Request for Joint Proposal

On May 31, 2013, the WRRB reviewed and recommended continued implementation of Bathurst ʔekwǫ̀ herd recommendations made in its October 2010 Recommendations Report for the 2013/2014 harvesting season. The Board did not provide harvest recommendations for the Bluenose-East ʔekwǫ̀ herd as a separate management proposal for the herd was expected in the near future.

TG and ENR submitted the *"Joint Proposal on the Caribou Management Actions in Wek'èezhìı (2014-2019)"* under separate cover on June 30, 2014. In the proposal, it was noted that for Bluenose-East ʔekwǫ̀ herd management, the draft *"Taking Care of Caribou"* management plan provided guidance and, if needed, a management proposal would be submitted separately. On July 16, 2014, the WRRB recommended that TG and ENR begin developing a joint management response to the sharp decline in the Bluenose-East ʔekwǫ̀ population and number of breeding females.

Following the June 2014 reconnaissance survey of the Bluenose-East ʔekwǫ̀ herd, on August 27, 2014, the Minister of ENR held a meeting of Aboriginal leaders and wildlife management authorities to discuss the results, which suggested a continuing declining trend. The leadership agreed to create a technical working group that was tasked with reducing uncertainties regarding the causes behind the herd declines and developing a corresponding plan of action. Technical meetings were held in Yellowknife, NT on October 9-10, 2014 and October 22-23, 2014. Follow-up leadership meetings were held on November 7, 28 and December 4, 2014 in Yellowknife, NT to discuss the working group's proposed plan of action and reach agreement on implementation.

On November 5, 2014, based on the estimated 2013 herd size, the 2014 reconnaissance survey information and the principles stated in the *Taking Care of Caribou* management plan, the ACCWM proposed the herd status colour zone as orange and recommended NWT-specific orange management actions for the Bluenose-East ʔekwǫ̀ herd, related to education, habitat, land use activities, predators and harvest. Further, on November 19 and December 4, 2014, the ACCWM proposed an interim voluntary harvest target of

2800 Bluenose-East ʔekwǫ̀ per year (NWT overall harvest of 1800 ʔekwǫ̀), with a focus on a majority-bulls harvest, emphasizing younger and smaller bulls and not the large breeders and leaders. The ACCWM stated that if ENR had evidence to suggest that the harvest target had been exceeded by 10% or more for the 2014/2015 harvesting season, then, after consultation with the ACCWM, regulations should be put in place to close all harvesting in areas occupied by the Bluenose-East ʔekwǫ̀ herd.

ENR responded to the ACCWM on December 17, 2014 with a commitment to implement the *Taking Care of Caribou* management plan, ensuring that land claim processes are honoured. Further, ENR requested advice from the ACCWM on a proposed overall approach for Bluenose-East ʔekwǫ̀ herd management, including a reduced harvest target for the NWT, mandatory harvest reporting, an allocation formula, and an increase in the number of satellite collars. On January 9, 2015, the ACCWM responded with its concerns about the proposed short-term management approach for the Bluenose-East ʔekwǫ̀ herd undermining the process set out in the management plan and setting unrealistic timelines for the development, community approval and implementation of a harvest allocation and harvest monitoring and reporting program. The ACCWM requested that ENR respect the processes set out in the management plan for action planning, implement the previous recommendation of a voluntary harvest target of 2800 Bluenose-East ʔekwǫ̀ per year (NWT overall harvest of 1800 ʔekwǫ̀), and actively enforce a proposed 80:20 bull:cow harvest ratio.

On January 21, 2015, ENR accepted the ACCWM's recommendation of a limit of 1800 Bluenose-East ʔekwǫ̀ for the NWT for the 2014/15 harvest season, including an 80:20 bull:cow harvest ratio, and proposed regulations to required authorizations to harvest bull-only barren-ground caribou in R/BC/01, R/BC/02 and R/BC/03. On January 26, 2015, the ACCWM supported ENR's proposal to require bull-only authorization cards for harvest within R/BC/01, R/BC/02 and R/BC/03, with emphasis on younger and smaller bulls and not the large breeders and leaders. While ENR also requested input on the harvest allocation of the 1800 Bluenose-East ʔekwǫ̀ for the Sahtú and Wek'èezhìı regions, the ACCWM felt that it was inappropriate to make any decisions on harvest allocation without input and approval from all Aboriginal harvesters of the Bluenose-East ʔekwǫ̀ herd. Therefore, the ACCWM recommended that a meeting of all Aboriginal users be held to determine the allocation of the Bluenose-East ʔekwǫ̀ herd and have clarity on any proposed regulations.

The SRRB sponsored the *Sahtú Gathering for the Caribou* on January 27-29, 2015 in Délı̨nę, NT. The meeting included representatives from the five Sahtú communities, the NWT Wildlife Management Advisory Council, the Inuvialuit Game Council, Kugluktuk Angoniatit Association, TG, and Parks Canada. At the gathering, ENR requested feedback on the issues to be considered regarding harvest allocations for the Bluenose East ʔekwǫ̀. Following discussion, seven points of consensus were presented: 1) decisions are needed about how to share the caribou; 2) important matters require an in-person meeting of the parties; 3) timelines for discussions and decisions should not be

imposed by the Minister; rather, they need to be agreed upon by the parties. Allocations should be arrived at and implemented for the 2015-2016 harvesting season as it is not feasible to accomplish this for the current harvesting season; 4) according to the best available information, the current status of the Bluenose East caribou does not constitute an emergency.; 5) the health of the caribou depends on the health of the aboriginal peoples, their ability to *Dene Ts'ı̨lı̨* (Be Dene); 6) the full range of actions, as presented by the Aboriginal Caucus at the November 28, 2014 meeting with the Minister, and as outlined in the Bluenose Caribou Management Plan, is needed to address declining trends; and, 7) education is needed in the communities to prepare the ground for any decisions that will be made.

A conference call was convened on February 2, 2015 with all affected Aboriginal organizations and wildlife management authorities of the Bluenose-East ʔekwǫ̀ herd to discuss a proposed harvest allocation for the remainder of the 2014/2015 harvest season. Unfortunately, many organizations were unable to participate in the call, and those able to call in were uncomfortable with supporting an allocation or criteria for allocation without all traditional users of the herd taking part in the discussion.

Taking into consideration the discussion during the February 2, 2015 conference call and the consensus points provided from the *Sahtú Gathering for the Caribou*, ENR responded on February 6, 2015 with the following allocation of 1800 authorizations for the Bluenose-East ʔekwǫ̀ herd for the 2014/15 harvest season: Tłı̨chǫ: 1100; Sahtú: 480; Inuvialuit: 25; NWT Métis Nation: 40; Akaitcho Territorial Government: 60; and, NSMA: 50. In addition to caribou harvest measures, ENR indicated additional approaches to be implemented would include predator management measures, such as increased payments for the wolf incentive program; monitoring actions; compliance and enforcement measures; enhanced education and communication activities; "sight in your rifle" events; and addressing impacts of disturbance on ʔekwǫ̀ herds with land use planners and industry.

On July 9 and September 24, 2015, ENR provided updates to the WRRB about the Bluenose-East ʔekwǫ̀ herd calving group surveys conducted in June 2015. The results presented indicated a continued decline in the total number of breeding cows since the 2013 calving ground photo survey. The final population estimate would be provided by the end of October, following a composition survey to estimate the sex ratio.

On August 25, 2015 and September 22, 2015, respectively, TG and ENR provided short-term ʔekwǫ̀ management recommendations for the 2015/16 harvest season. The Board responded to TG and ENR, on September 25, 2016, with reasons for decisions and a list of recommendations for the 2015/16 harvest season, including agreeing on and implementing a reduction in the number of ʔekwǫ̀ harvested by subsistence users[10] of the Bluenose-East ʔekwǫ̀ herd. In addition, in order to implement determinations and/or

[10] Subsistence users include Tłı̨chǫ Citizens and members of an Aboriginal people, with rights to harvest wildlife in Wek'èezhìı, as per Section 12.6.5(b)(i) of the Tłı̨chǫ Agreement.

recommendations by July 1, 2016, the WRRB requested the submission of a joint management proposal for the Bluenose-East ʔekwǫ̀ herd, for the 2016/17 harvest season and beyond, by no later than November 15, 2015.

Due to consultation requirements, TG and ENR approached the Board on October 15, 2015 requesting an extension of the time for the submission of a joint management proposal for the Bathurst ʔekwǫ̀ herd until December 15, 2015. On October 21, 2015, the Board accepted the extension request despite concerns about future timing issues, including the implementation of management actions in the 2016/2017 harvest season.

On November 27, 2015, TG and ENR accepted the WRRB's recommendations and came to an agreement to implement, for the 2015/16 harvest season, a harvest target of 950 bulls-only for Aboriginal harvest of the Bluenose-East ʔekwǫ̀ herd (including Nunavut). Additionally, it was noted that work will continue with authorities in Nunavut towards implementing a consistent approach to harvest of Bluenose-East ʔekwǫ̀ in Nunavut and NWT.

A final update on the status and management of the Bluenose-East ʔekwǫ̀ herd was provided by ENR on December 2, 2015, including the final population estimate and the suggestion that the Bluenose-East herd is close to the red zone, as per the *Taking Care of the Caribou* management plan.

On January 20, 2016, ENR and representatives of traditional users and wildlife management authorities met to discuss and come to agreement on a proportional harvest allocation for the Bluenose-East herd for the 2016/17 harvest season and beyond. Meeting participants agreed that the proposed TG and ENR harvest allocation formula is 'close' and should be seriously considered and consulted on by all groups.

4.2 Receipt of 2015 Joint Proposal

On December 15, 2015, the TG and ENR submitted the "*Joint Proposal on Management Actions for Bluenose-East Caribou 2016-2019"* to the Board outlining proposed management actions for the Bluenose-East ʔekwǫ̀ herd in Wek'èezhìı, including new restrictions on hunter harvest, predator management and ongoing monitoring (Appendix A). More specifically, TG and ENR proposed implementing a herd-wide total allowable harvest of 950 bulls-only and allocation for the Bluenose-East ʔekwǫ̀ herd, and conducting a feasibility assessment of a full range of dìga management actions. The WRRB considered the proposed restriction of harvest as the establishment of a TAH and, therefore, was required to hold a public hearing.

The Board initiated its 2016 Bluenose-East Caribou Herd Proceeding on January 18, 2016 and established an online public registry: http://www.wrrb.ca/public-information/public-registry. On January 18, 2016, public notice of the WRRB decision to open a proceeding and conduct a public hearing concerning the possible setting of a

TAH for the Bluenose-East ʔekwǫ̀ herd was provided to potentially interested organizations in and out of Wek'èezhìı via email, WRRB website, social media and radio. Notifications of the revised proceeding schedules were posted publicly on February 1 and 29, 2016.

The proceeding and hearing were conducted in accordance with the WRRB's *Rules of Procedures, September 23, 2015*.[11]

4.3 Registered Intervenors

Interested organizations or individuals were required to register as intervenors via the Board's website or to notify the WRRB in writing via email by January 26, 2016. Only two organizations registered by the deadline date: the North Slave Métis Alliance (NSMA) and the Déljnę First Nation (DFN). Full intervenor status was granted to NSMA and DFN on February 1, 2016.

4.4 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.

The first round of IRs was issued January 18, 2016, requesting that TG and ENR provide additional Tłı̨chǫ knowledge and scientific information and rationale on the proposed management and monitoring actions. ENR and TG provided their responses on January 29, 2016. On February 5, 2016, the Board requested consent from all Parties to post supporting documentation referenced by TG and ENR in their management proposal and IR No.1 responses to the public registry. No concerns were raised and documents were posted on February 10, 2016.

The second round of IRs was issued February 8, 2016, requesting all Registered Parties provide additional information, in particular related to monitoring and research on key environmental and habitat variables as well as cumulative effects monitoring and management. Additionally, NSMA submitted two IRs for response by ENR. All Parties provided their responses on February 18, 2016.

4.5 Technical Sessions

To ensure that any outstanding scientific and traditional knowledge (TK) technical aspects of the proceeding were clarified, the Board hosted a science technical session as well as a TK technical session. The information gathered during each session is available

[11] http://wrrb.ca/sites/default/files/WRRB%20Rules%20of%20Procedure%2023Sep2015_0.pdf

on the public record as part of the body of evidence used by the WRRB to make its final decision.

4.5.1 Science Technical Session

The WRRB notified the Parties of the science technical session on March 4, 2016, along with a list of topics for discussion, including 1) Bluenose-East ʔekwǫ̀ herd harvest levels, including whether was there a shift after the Bathurst ʔekwǫ̀ herd restrictions; 2) rule of thumb approach to setting harvest levels and harvest risk reports; 3) Bluenose-East ʔekwǫ̀ herd calving distribution, including the likelihood of a shift and the relationship to the Bluenose-West ʔekwǫ̀ herd; 4) detection of changes in number of breeding females, calf-cow ratios, pregnancy rates, adult survival and criteria for annual review of the harvest; 5) possible mechanisms for Bluenose-East ʔekwǫ̀ herd accelerated decline; and, 6) contingencies for wide distribution of high density clusters of breeding females.

The science technical session was held on March 17, 2016 in Yellowknife. A summary of the technical session was produced and is available on the public registry.

4.5.2 Traditional Knowledge Technical Session

The WRRB notified the Parties of the TK technical session on March 16, 2016, along with a list of topics for discussion, including 1) "leave them [ʔekwǫ̀] alone", "don't bother them [ʔekwǫ̀] ", "don't talk negative and so much about ʔekwǫ̀"; 2) how should harvest be allocated? how can communities be involved?; 3) should there be a ceremonial harvest?; 4) how does development affect the human-ʔekwǫ̀ relation? how does development affect fall range and water crossings?; and, 5) what does Dene self-regulation of harvesting look like?

It was anticipated that the list of topics would bring out Dene perspectives on ʔekwǫ̀ collaring, definition of ʔekwǫ̀ herds, movement of ʔekwǫ̀ between herds, ʔekwǫ̀ harvest and harvest monitoring, cow vs. bull harvests, and predator control.

The TK technical session was held on March 22, 2016 in Yellowknife. A summary of the technical session was produced and is available on the public registry.

4.6 WRRB Public Hearing, April 6-8, 2016

To ensure that procedural, legal and administrative items were addressed prior to the public hearing, the Board held a pre-hearing conference on March 29, 2016 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 was issued on April 1, 2016. The instructions also included the requirements for Party closing statements and final written arguments.

Hearing presentations from intervenors were requested for March 30, 2016; presentations from TG and ENR were requested for April 1, 2016. All written submissions, hearing presentations and speaking notes were posted to the public registry.

On March 24 and 28, 2016, the SRRB requested an opportunity to ask questions about oral testimony from the Délı̨nę hearing and questions about the "new evidence" which ENR and/or Délı̨nę First Nation may present at the WRRB Public Hearing. The Board responded to the SRRB on March 31, 2016, stating that the WRRB would set aside time on its agenda to allow the SRRB to ask questions about new information that was not filed during its proceeding. Further, the WRRB suggested that the SRRB use its own process to explore any testimony given at its Délı̨nę hearing. Parties were informed on April 1, 2016 that the SRRB would be provided an opportunity to ask questions, and would only be able to ask questions of those Parties that participated in both proceedings, i.e. ENR and DFN.

During the April 6-8, 2016 hearing in Behchokǫ̀, NT, the registered Parties gave oral presentations and asked questions of the other Parties. In addition to the questioning by the SRRB, the registered general public were also given a daily opportunity to address the WRRB in the hearing. A list of registered Parties and general public is in Appendix D. A full written transcript of each day's session was produced and is available on the public registry.[12] Recommendations provided by the Parties were summarized by Board staff (Appendix E).

The WRRB adjourned the hearing on April 8, 2016. Final written arguments were submitted by registered intervenors on April 19, 2016, and by TG and ENR on April 22, 2016.

The public record was closed on April 22, 2016 and the WRRB's deliberations followed.

5. BOARD PARTICIPATION IN SRRB PROCEEDING

Two management proposals were filed with the SRRB. The Délı̨nę Ɂehdzo Got'ı̨nę, DFN and Délı̨nę Land Corporation jointly filed a caribou conservation plan, *Belarewílé Gots'ę́ Ɂekwę́*; ENR filed a *Proposal on Management Actions for Bluenose East Caribou* 2016-2019. As both plans recommended harvest limitations, and the SRRB agreed to consider the plans, Section 13.8.21(b) of the Sahtú Dene and Métis Comprehensive Land Claim Agreement required that a hearing be held.

The SRRB held their public hearing on March 1-3, 2016 in Délı̨nę, NT. Registered Parties included Délı̨nę Ɂehdzo Got'ı̨nę, Délı̨nę Land Corporation and DFN; ENR; Tulít'a Renewable Resources Council; Tulít'a Dene Band; Norman Wells Renewable Resources Council; Fort Good Hope Ɂehdzo Got'ı̨nę; K'asho Got'ine Community Council;

[12] http://wrrb.ca/public-information/public-registry

Colville Lake Renewable Resources Council; Ayoni Keh Land Corporation; Bedzi Ahda First Nation; and, Irene Kodakin (resident of Délı̨nę). The WRRB attended the SRRB hearing as an observer. The registered Parties gave oral presentations and asked questions of the other Parties. Registered general public were also given a daily opportunity to address the SRRB in the hearing. A full written transcript of each day's session was produced and is available on the SRRB's online public registry.[13]

The SRRB adjourned the hearing on March 3, 2016. Final written arguments were submitted by registered intervenors on May 13, 2016, and by ENR and DFN on May 20, 2016. The SRRB is expected to submit its final recommendations to ENR on June 20, 2016.

6. IS THERE A CONSERVATION CONCERN FOR THE BLUENOSE-EAST ʔEKWǪ̀ (BARREN-GROUND CARIBOU) HERD?

Based on the WRRB's review of Sections 12.6.1 and 12.6.2 of the Tłı̨chǫ Agreement, the first question which must be answered is whether there is a conservation concern with respect to the Bluenose-East ʔekwǫ̀ herd. If the WRRB is not convinced that there is a Bluenose-East ʔekwǫ̀ management problem, it does not have the authority to recommend harvest limitations on Tłı̨chǫ citizens.

6.1 Evidence Presented

6.1.1 Evidence from Aboriginal Parties

The evidence presented by TG, NSMA, and DFN is consistent. The Bluenose East ʔekwǫ̀ herd is stressed and its population is low enough for strong conservation measures. When Mr. John Donihee, WRRB Legal Counsel, asked TG, *"In the opinion of the Tłı̨chǫ Government, is there a serious conservation concern with respect to the Bluenose-East caribou herd?"*, TG's senior representative said, "*Yes, there is a serious – we believe there's a serious concern*".[14] Additionally, Mr. Shin Shiga stated:

> "*We understand that the Bluenose-East caribou population is in a steep decline for reasons not yet clearly known. … We also understand that there are a few industrial developments in the Bluenose-East caribou range. For these reasons we believe that a timely introduction of temporary harvest management, using total allowable harvest is an acceptable approach to the Bluenose-East caribou management."*[15]

[13] http://srrb.nt.ca/index.php?option=com_content&view=category&id=140&Itemid=1225
[14] PR (BNE) – 167: Transcript – April 7, 2016 (DAY 2) – Bluenose-East Caribou Herd Public Hearing. pp 177-178.
[15] PR (BNE) – 168: Transcript – April 8, 2016 (DAY 3) – Bluenose-East Caribou Herd Public Hearing. pp 57-58.

Dene and Métis acknowledge their role as custodians of the *dè* (land) and the animals in the area. In 2007, Chief Charlie Jim Nitsiza emphasized: "*We're at a critical stage where we need each other to keep the caribou from becoming an endangered species."*[16] At the TK Technical Session, participants emphasized that there will always be a conservation issue until people recognize "*the problems are associated with such things as: pollution, development that blocks ʔekwǫ̀ migration routes, loss of habitat – summer, fall, winter, water-crossings and narrows and a lack of understanding on how to treat ʔekwǫ̀.*"[17]

They stressed that ʔekwǫ̀ are not the problem; rather, human behaviour is the problem. Several Dene participants suggested that *"humans have to start talking about themselves – being responsible for their own behaviour. People can't just talk about caribou ... It is not appropriate to only talk about caribou rather than [all] our role[s] impacting caribou."*[18] Additionally, a Délı̨nę citizen commented,

> "*Animals are like human beings – if you bother them too much they don't like it. ...They should treat animals like human beings and with respect. …. It seems now with all the activity and flying around that's why the migration route has changed and we must acknowledge that."*[19]

Most Tłı̨chǫ accept that ʔekwǫ̀ populations are low. Nevertheless, some question whether they are dying off, as exemplified by Elder Bernadette Nasken's statement: "*we still believe that no caribou will become endangered in – our area."*[20] As another Behchokǫ̀ citizen explained, "W*hen the herds were in trouble in the past they went away and moved to other areas. When they recovered they came back."*[21] These statements suggest, as when the elders say *"leave them alone"*, that ʔekwǫ̀ require a different type of stewardship strategy than what is currently taking place.[22] This strategy includes protecting the varied and extensive landscape and habitat the ʔekwǫ̀ travel through to access the nutrients required to maintain their life. As Elder Joe Zoe Fish said,

> "*they don't roam in this area only, they roam all over…They traveled to here and to Sahtú [Great Bear Lake] and towards the treeline and that's what the ʔekwǫ̀ does ... Whatever its knowledge is, it doesn't get rid of it. It travels the same route wherever their good feeding ground is."*[23]

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[16] PR (BNE) – 121: Transcript- Tłı̨chǫ Government Caribou Workshop, Whatì, NT. Day 1. 2007.
[17] PR (BNE) – 092: Summary of Traditional Knowledge Session, March 22, 2016 – Bluenose-East ʔekwǫ̀ Herd. 2016.
[18] Ibid.
[19] PR (BNE) – 099: We have been Living with the ʔekwǫ̀ all our Lives: a report on information recorded during community meetings for 'Taking Care of ʔekwǫ̀ – the Cape Bathurst, Bluenose-West, and Bluenose-East Barren-ground ʔekwǫ̀ Herds Management Plan". 2014.
[20] PR (BNE) – 168: Transcript – April 8, 2016 (DAY 3) – Bluenose-East Caribou Herd Public Hearing. P 205.
[21] PR (BNE) – 099: We have been Living with the ʔekwǫ̀ all our Lives: a report on information recorded during community meetings for 'Taking Care of ʔekwǫ̀ – the Cape Bathurst, Bluenose-West, and Bluenose-East Barren-ground ʔekwǫ̀ Herds Management Plan". 2014.
[22] PR (BNE) – 092: Summary of Traditional Knowledge Session, March 22, 2016 – Bluenose-East ʔekwǫ̀ Herd. 2016; and PR (BNE) – 168: Transcript – April 8, 2016 (DAY 3) – Bluenose-East Caribou herd Public Hearing. p.127.
[23] PR (BNE) – 125: Caribou Migration and the State of their Habitat – Final Report, March 2001.

State of Caribou Habitat

The most consistent statements concerning the state of Bluenose-East ʔekwǫ̀ habitat were in relation to loss of winter habitat, necessary landscapes, and foraging availability, due to forest fires, industry and infrastructure. TK Technical Session participants agreed that calving grounds are important, but stressed that the boreal forest requires equal consideration since ʔekwǫ̀ spend much of their annual cycle foraging in this part of their range.

Dene based their understanding of the relationship between habitat degradation, foraging availability, and ʔekwǫ̀ fitness on experiential knowledge.[24] Between the 1930s and the1980, several mines with varying degrees of production activities were operating within the Bluenose-East ʔekwǫ̀ herd's range, with many more in other areas of Wek'èezhìı. These mines were along ʔekwǫ̀ migration routes and in their winter range.[25] In response to a discussion on knowing the ʔekwǫ and the land on which they travel, Elder Amen Tailbone explained,

> "*You must know ʔekwǫ̀ and observe the ʔekwǫ̀ and if the ʔekwǫ̀ does something that is different than you expect, then you must watch it even harder so you understand why it did not behave the way you expect it to."*[26]

In the 1970s and 1980s, Aboriginal harvesters observed the impacts of both mining activity, such as dust, noise, pollution, and tailing ponds, and forest fires on ʔekwǫ̀ and their habitat.[27] Poor ʔekwǫ̀ habitat and changing landscapes resulted in changing migration routes and poor fitness. At times, there were not enough ʔekwǫ̀ to feed families. One year, Elder Philip Chocolate's older sister, Wedàęlìa, who lived at *Wedàèlìamìhk'è* ('Wedàęlìa net site'), lived on *łiwe* (fish) all year long because there were no ʔekwǫ̀.[28]

Observations are remembered through collective oral narratives; stories tell how mines and forest fires affect ʔekwǫ̀ habitat. These occurrences cause Dene and Métıs to be concerned, stressing that:

> *"Fewer ʔekwǫ̀ were being harvested than in the past, whether due to harvest regulations, difficulty of the harvest, or changing traditions. ... However, while human harvests might have been impacting ʔekwǫ̀ less, other changes on the land*

[24] PR (BNE) – 099: We have been Living with the Caribou all our Lives: a report on information recorded during community meetings for 'Taking Care of Caribou – the Cape Bathurst, Bluenose-West, and Bluenose-East Barren-ground Caribou Herds management Plan'. 2014.
[25] PR (BNE) – 125: Caribou Migration and the State of their Habitat – Final Report, March 2001.
[26] Ibid.
[27] Ibid.
[28] PR (BNE) – 034: Dogrib Knowledge on Placenames, Caribou and Habitat, Final Report. 2002.

– such as fire, mining exploration and development – have increased and could have been impacting ʔekwǫ̀ more than before."[29]

6.1.2 Scientific Evidence

Herd Estimates and Vital Rates

A June 2015 calving ground photographic survey of the Bluenose-East ʔekwǫ̀ herd, conducted by ENR, resulted in a total estimate of 17,396 breeding cows (95% CI = 12,780-22,012), which indicated that abundance of breeding females had decreased by about 29% per year since the June 2013 estimate of 34,472 (95% CI = 30,109-38,835) (Figure 3).[30] The overall decline between 2013 and 2015 is 43% based on the total population estimate, which fell from 68,295 (95% CI = 50,254-86,336) in 2013 to 38,592 (95% CI = 33,859-43,325) in 2015 (Figure 4).[31]

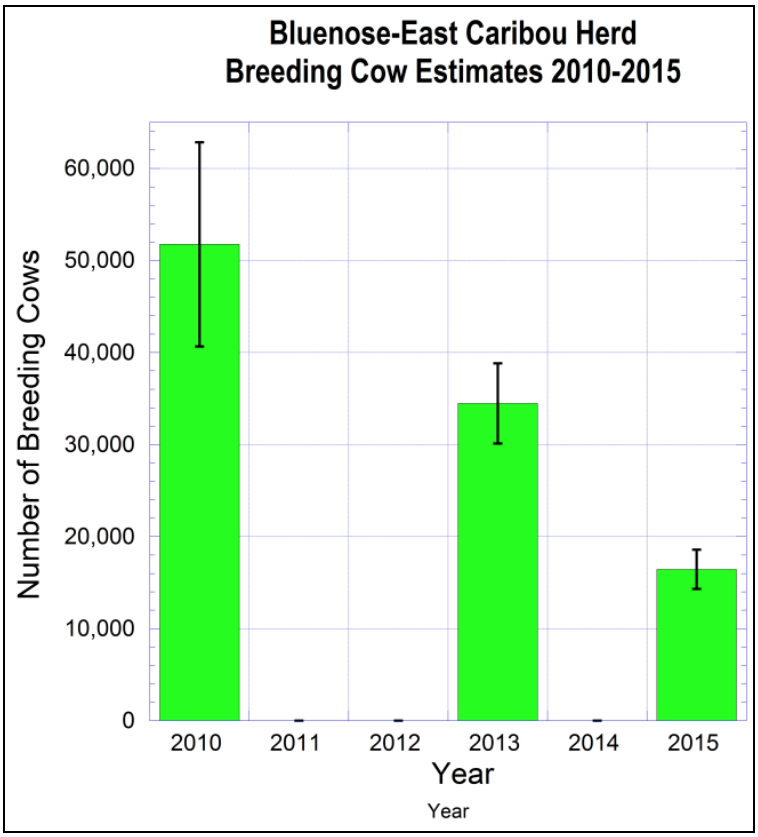

Figure 3: Bluenose-East ʔekwǫ̀ (barren-ground caribou) herd breeding cow estimates (± 95% CI), 2010-2015.[32]

[29] PR (BNE) – 099: We have been Living with the Caribou all our Lives: a report on information recorded during community meetings for 'Taking Care of Caribou – the Cape Bathurst, Bluenose-West, and Bluenose-East Barren-ground Caribou Herds management Plan'. 2014.
[30] PR (BNE) – 001: Joint Proposal on Management Actions for Bluenose-East Caribou 2016-2019. 2016.
[31] PR (BNE) – 174: ENR to WRRB – Final Written Argument – Bluenose-East Caribou Herd Public Hearing. 2016.
[32] PR (BNE) – 001: Joint Proposal on Management Actions for Bluenose-East Caribou 2016-2019. 2016.

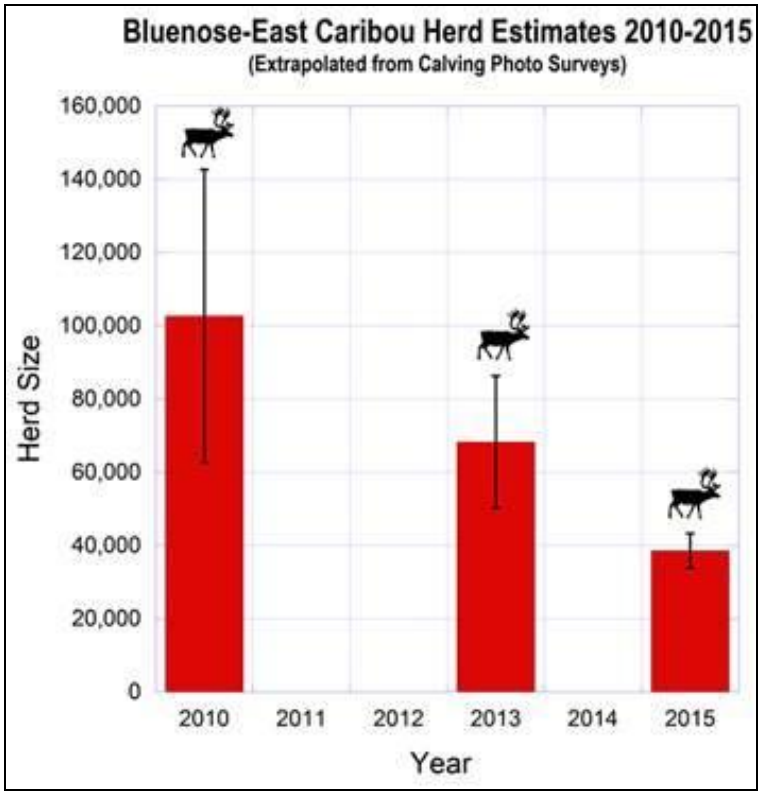

Figure 4: Bluenose-East ʔekwǫ̀ (barren-ground caribou) herd population estimates, (± 95% CI) (2010-2015).[33]

The rate of decline between 2013 and 2015 is accelerated compared to between 2010 and 2013 when the annual rate of decline was 14%.[34] Prior to 2010, the trend in herd size was less clear as the first estimate of herd size in 2000 at 119,584 (95% CI = 94,165-145,003), using post-calving photography, was similar to that estimated in 2010.[35] Two intervening surveys in 2005 and 2006 were lower estimates. In 2010, post-calving photography estimates were compared to calving ground photography, which then became the technique used in 2010, 2013 and 2015.

The other demographic indicators for the Bluenose-East herd are consistent with a decline between 2010 and 2015 and an accelerated decline between 2013 and 2015. The 2015 calving ground survey suggested that 36% of the cows in the Bluenose-East ʔekwǫ̀ herd were non-breeders, which means the pregnancy rate in winter 2014/15 was about

[33] PR (BNE) – 136: ENR to WRRB – Bluenose-East Caribou Public Hearing Presentation. 2016.
[34] PR (BNE) – 001: Joint Proposal on Management Actions for Bluenose-East Caribou 2016-2019. 2016.
[35] PR (BNE) – 041: Technical Report on the Cape Bathurst, Bluenose-West, and Bluenose-East Barren-Ground Caribou Herds Companion Report to Taking Care of Caribou: The Cape Bathurst, Bluenose-West, and Bluenose-East Barren-Ground Caribou Herds Management Plan. 2015.

64%. This is less than the typical 80% seen in a healthy herd.[36] Pregnancy rates were also low (62%) in 2010.[37] Other recent vital rates for the Bluenose-East herd are also low. The cow survival rate between 2013 and 2015 is estimated to have been 71%, which is below the 80-85% associated with a stable herd.[38] Calf to cow ratios in 2012 to 2015 averaged 28 calves:100 cows, which is below the 30-40 calves:100 cows associated with stable herds.[39] Between 2007 and 2011, late winter calf to cow ratios were high, which suggests conditions changed after 2011.[40] Evidence gathered by Tłı̨chǫ hunters during winter harvesting suggested that cows were relatively thin between 2010 and 2014,[41] and especially thin between 2012 and 2014.[42] TG agreed with and supported the scientific information presented.

Other causes of deaths include wolf and grizzly bear predation, but this is not directly measured as the number of satellite-collared caribou is too small.[43] The difficulty of describing predation rates was emphasized during the hearings.[44] Numbers of wolves and grizzly bears were recorded during calving and late winter surveys.[45] Sightings of wolves and bears on the Bluenose-East calving grounds began in 2010 and suggest an increasing trend in bear sightings from 2010 to 2015, but wolf sightings were variable. Wolf sightings on the late winter ranges were recorded from 2009-2015 and were higher than recorded for the Bathurst herd.

Movement of Collared ʔekwǫ̀ among Herds

Movement of collared cow ʔekwǫ̀ between the Bluenose-East, Bluenose-West and Bathurst calving grounds from 2010 to 2015 has been evaluated to determine the frequency of herd switching. Results suggest that there has been a very low rate of switching of cows between the Bluenose-East and neighbouring calving grounds, with the net movement to or from the Bluenose-East range being minimal.[46] This minimal movement to or from the Bluenose-East range is unlikely to account for the declining trend in the herd.[47]

[36] PR (BNE) – 174: ENR to WRRB – Final Written Argument – Bluenose-East Caribou Herd Public Hearing. 2016.
[37] PR (BNE) – 057: Tłı̨chǫ Caribou Health and Condition Monitoring Program: Final Report July 2014.
[38] PR (BNE) – 174: ENR to WRRB – Final Written Argument – Bluenose-East Caribou Herd Public Hearing. 2016.
[39] Ibid.
[40] PR (BNE) – 041: Technical Report on the Cape Bathurst, Bluenose-West, and Bluenose-East Barren-Ground Caribou Herds Companion Report to Taking Care of Caribou: The Cape Bathurst, Bluenose-West, and Bluenose-East Barren-Ground Caribou Herds Management Plan. 2015.
[41] PR (BNE) – 057: Tłı̨chǫ Caribou Health and Condition Monitoring Program: Final Report July 2014.
[42] PR (BNE) – 055: Overview: Monitoring of Bathurst and Bluenose-East Caribou Herds, Unpublished Report. Sept 2014.
[43] PR (BNE) – 006: TG & ENR Information Request No.1 Responses – Bluenose-East Caribou Herd. Question #14. 2016.
[44] PR (BNE) – 167: Transcript – April 7, 2016 (Day 2) – Bluenose-East Caribou Herd Public Hearing. 2016. pp. 71-74.
[45] PR (BNE) – 006: TG & ENR Information Request No.1 Responses – Bluenose-East Caribou Herd. Question #13. 2016.
[46] PR (BNE) – 020: Boulanger et al. 2016. An Estimate of Breeding Females and Analyses of Demographics for the Bluenose-East Herd of Barren-Ground Caribou: 2015 Calving Ground Photographic Survey. Draft. 2016.
[47] Ibid.

Specifically, information was collected on collared cows that had consecutive June locations, i.e. cows that were observed returning to the same calving grounds one year to another. For the three herds, there were a total of 204 sets of data for cows that returned to calve in consecutive years. Of the 204 pairs of locations from 2010 to 2015, 199 indicated returns to the same calving ground, with 5 indicating a switch between herds.[48] In the Bluenose-East herd, one collared cow switched to the Bluenose-West herd and two switched in the reverse direction; also, two Bathurst cows switched to the Bluenose-East calving ground.[49] Overall, the data represent a 97.5% loyalty of collared cows to calving grounds.[50]

State of the Habitat

Concerns over environmental factors contributing to the continuing decline have been voiced, including a severe drought in the summers of 2012 and 2014. A review of an index of drought conditions on the summer range of the Bluenose-East herd from 1981 to 2014 indicates a significant increase in drought conditions with a peak in 2014.[51] The hot, dry summer in 2014 likely resulted in poor plant growth and poor feeding conditions for ʔekwǫ̀[52], reducing fat reserves of the cows such that they could not breed in the fall, hence the low pregnancy rate[53]; if cows do not have access to good forage during the summer, then their condition is poor, and pregnancy rate low[54]. The Bluenose East summer range was drier (lower July rainfall) and had a higher Drought Index than the Bathurst herd's summer range.

Biting flies, such as mosquitoes, black flies and warble flies, can interfere with ʔekwǫ̀ feeding during a time when vegetation is most nutritious. The activity of biting flies is tied to temperature and wind speed, and summer weather records can be used to derive an index of activity level in warble flies. A review of the warble fly index for the Bluenose-East herd from 1979 to 2014 shows peaks in the 1990s and again in 2014.[55] This index is likely correlated with the previously mentioned drought index, and suggests that poor summer feeding conditions have occurred in combination with insect harassment, further interfering with ʔekwǫ̀ feeding and likely contributing to a low pregnancy rate and low calf production[56] in 2012 and 2014. However, not all trends in climate are unfavourable; the temperatures for plant growth in early June during calving have increased between 2000 and 2014.[57]

[48] PR (BNE) – 136: ENR to WRRB – Bluenose-East Caribou Public Hearing Presentation. 2016.
[49] Ibid.
[50] Ibid.
[51] Ibid.
[52] PR (BNE) – 137: Climate trends on NWT Migratory Tundra Caribou Seasonal Ranges (Excerpt April 1, 2016) – ENR Response to Document Request – Bluenose-East Caribou Herd. 2016.
[53] PR (BATH) - 006: TG & ENR Information Request No.1 Responses - Bathurst Caribou Herd. 2016.
[54] PR (Bath) - 061: Overview: Monitoring of Bathurst and Bluenose-East Caribou Herds, Sept. 2014 Unpublished Report.
[55] PR (BNE) – 137: Climate trends on NWT Migratory Tundra Caribou Seasonal Ranges (Excerpt April 1, 2016) – ENR Response to Document Request – Bluenose-East Caribou Herd. 2016.
[56] PR (BATH) - 152: ENR to WRRB - Bathurst Caribou Public Hearing Presentation. 2016.
[57] PR (BNE) – 137: Climate trends on NWT Migratory Tundra Caribou Seasonal Ranges (Excerpt April 1, 2016) – ENR Response to Document Request – Bluenose-East Caribou Herd. 2016.

During the hearings, the likely role of the climate in accentuating declines,[58] not just in the Bluenose-East ʔekwǫ̀ herd but also in the Bathurst and Bluenose-West ʔekwǫ̀ herds, was identified as a factor.

The impacts of various ongoing and proposed human-induced activities on the Bluenose East range are low as no mines have been constructed or roads since the 1980s, and exploration projects are few. An exception is an exploration project on the calving ground in 2015.

6.2 Conclusion

Throughout the proceeding, the Bluenose-East ʔekwǫ̀ herd decline has been compared to the decline observed in the neighbouring Bathurst ʔekwǫ̀ herd, with the Bluenose-East herd *"…declining now at a rate as fast as the Bathurst herd did during its most rapid decline between 2006 and 2009"*[59], and that the trend is *"alarmingly similar"*[60] to that which has been observed in the Bathurst herd. Vital rates associated with the herd, including the cow survival rate, calf recruitment, and pregnancy rate, all indicate that the decline is recent and that the herd is likely to continue to decline in the near future. With the addition of changing environmental conditions, including severe drought conditions, significant forest fire events, and disturbance on key parts of the range, recovery of the herd remains uncertain. Both TG and ENR stated that it is reasonable for the WRRB to conclude that there is a serious conservation concern with respect to Bluenose-East ʔekwǫ̀ herd.[61]

Of particular concern to the Board is the uncertainty about the accelerated rate of decline. Evidence presented described how the halving time[62] for the Bluenose-East herd has changed from 5 years to 2 years.[63] There is also uncertainty about the harvest levels as the recorded harvest is considered an underestimate.[64] The rate of total mortality, including harvest, is high but it is unknown about how levels of predation, recent severe drought conditions have contributed.[65] Additionally, the WRRB is concerned about the high harvest of cows and notes the sensitivity of the herd to the survival of cows:

[58] PR (BNE) – 167: Transcript – April 7, 2016 (Day 2) – Bluenose-East Caribou Herd Public Hearing. 2016. pp.77-78.
[59] PR (BNE) – 136: ENR to WRRB – Bluenose-East Caribou Public Hearing Presentation. 2016.
[60] PR (BNE) – 109: NSMA to WRRB – Bluenose-East Caribou Herd Public Hearing Presentation Speaking Notes. 2016.
[61] PR (BNE) – 167: Transcript – April 7, 2016 (Day 2) – Bluenose-East Caribou Herd Public Hearing. 2016. pp. 177-178.
[62] Halving time is the number of years that it would take for a population to become half its size at a given rate of decline.
[63] PR (BNE) – 135: Tłı̨chǫ Government to WRRB – Bluenose-East Caribou Herd Public Hearing Presentation. 2016.
[64] PR (BNE) – 055: Overview: Monitoring of Bathurst and Bluenose-East Caribou Herds, Unpublished Report. Sept. 2014.
[65] PR (BNE) – 167: Transcript – April 7, 2016 (Day 2) – Bluenose-East Caribou Herd Public Hearing. 2016. pp.66-69.

> *"Shooting a pregnant cow removes the cow, the calf she is carrying, all future calves she might produce and all future calves her calves might produce. ... if a hunter chooses a bull instead of a cow each year for ten years there could be 23 more caribou in the herd as a result."*[66]

Therefore, the WRRB concluded that the balance of Aboriginal and scientific evidence supports the conclusion that the Bluenose-East ʔekwǫ̀ herd has continued to decrease in number in recent years, and demonstrates that there is an issue of serious conservation concern.

7. OTHER ABORGINAL HARVESTERS OF THE BLUENOSE-EAST ʔEKWǪ̀ (BARREN-GROUND CARIBOU) HERD

The annual range of the Bluenose-East ʔekwǫ̀ herd includes communities in the Sahtú Settlement Area, Inuvialuit Settlement Region and Dehcho Territory, and in Nunavut, which harvest from the herd at different times of the year (Figure 5). In the NWT, the Tłı̨chǫ, Sahtúgot'ıne, Yellowknives Dene First Nation, Dehcho First Nation, Northwest Territories Métis Nation, NSMA, and the Inuvialuit harvest the Bluenose-East ʔekwǫ̀ herd more often than other Aboriginal users.

[66] PR (BNE) – 166: Transcript – April 6, 2016 (Day 1) – Bluenose-East Caribou Herd Public Hearing. 2016. p.75.

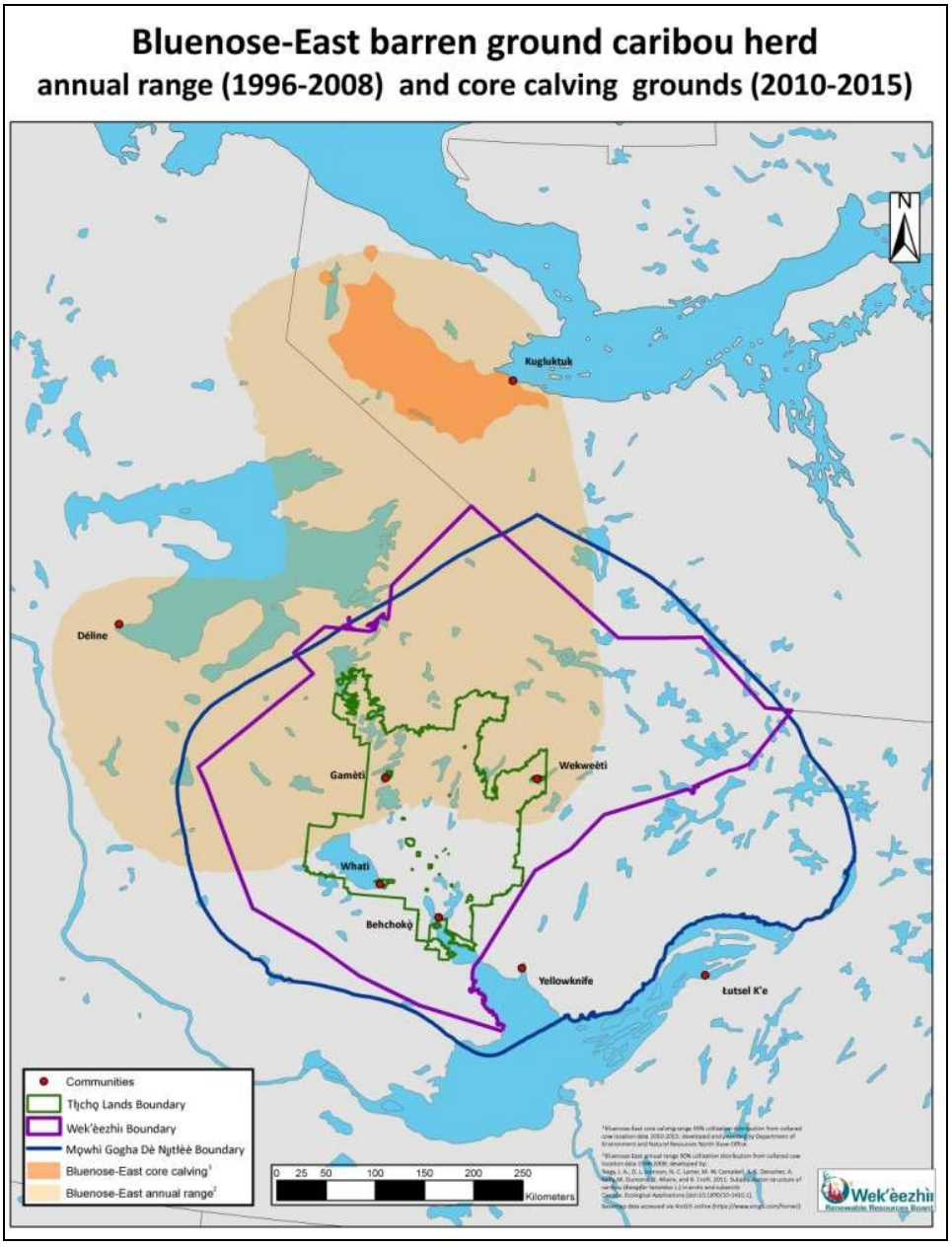

Figure 5: Bluenose-East ʔekwǫ̀ (barren-ground caribou) herd annual range (1996-2008) and core calving grounds (2010-2015).[67]

Dene place names are indicators of both Aboriginal use and the resources they used.[68] Young people know place names are vital to their ecological and social relationship with the dè. As Mr. Ted Mackeinzo, from Délı̨nę, said, "*Describe the land, the names and the*

[67] WRRB. 2016.
[68] PR (BNE) – 029: Habitat of Dogrib Traditional Territory: Place names as Indicators of Biogeographical Knowledge 2014.

importance of the area. Please describe it in both Dene language and English so the youth can better understand and gain knowledge and wisdom."[69] Place names indicate the trails, places and resources they used and continue to use.[70] Within Wekèezhìı, most are Tłı̨chǫ, but, within Mǫwhì Gogha Dè Nı̨ı̨tłèè, places have been shared with other Aboriginal people. As Dr. John B Zoe said,

> "*We know from our stories and our place names that there was nobody else here, as well as the other regions, probably the same thing. ...generally you knew which –whose area that it was. And that agreement is based on an earlier discussion, like I said at the beginning, back in the '70s when a lot of elders got together."*[71]

Mr. Walter Bayha expanded on this by explaining, "*I don't have very much knowledge of Hottah Lake – a lot of those lakes [in that area] ... Not only that but their names as well. And – and how it relates and connects to Bear Lake and the relation we had with the Tłı̨chǫ people*."[72] Take for example, the Tłı̨chǫ place name for Hottah Lake is 'ʔı̨ts'èetì'[73] and is translated as 'moose lake'. The term for 'moose is more commonly used in Délı̨nę, but used by both Tłı̨chǫ and Délı̨nę speakers in this case.[74]

Similarly *Kǫk'èetì* (Contwoyto Lake)[75] is a Tłı̨chǫ place name that refers to lots of camp sites around the lake. Kǫk'èetì was used during different seasons by both Tłı̨chǫ and Inuit.

As ɂekwǫ̀ move throughout their range, those whose traditional dè the ɂekwǫ̀ migrate within will host Dene and Métis from other regions. At the TG Caribou Workshop held in Whatì in 2007, the participants suggested formalizing this traditional protocol: "*the four Tłı̨chǫ communities and the Tłı̨chǫ government have to be notified in advance before other regions can hunt in the Tłı̨chǫ Nation*."[76] They want their leadership to ensure everyone, including in their own communities, take only what is needed and treat ɂekwǫ̀ as has been tradition.[77]

Under the *NWT Wildlife Act*, the GNWT is responsible for ɂekwǫ̀ management, in accordance with the law and following consultation, with the Yellowknives Dene First Nation, the Dehcho First Nation, the Northwest Territories Métis Nation, and the NSMA.

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[69] PR (BNE) – 129: Belarewíle Gots'ę́ ʔekwę́ – Caribou for All Time: A Délı̨nę Got'ı̨nę Plan of Action. 2015.
[70] PR (BNE) – 120: Tłı̨chǫ Wenek'e – Tłı̨chǫ Land Use Plan. 2013; PR (BNE) – 034: Dogrib Knowledge on Placenames, Caribou and Habitat, Final Report. 2002.
[71] PR (BNE) – 166: Transcript – April 6, 2016 (DAY 1) – Bluenose Ease Caribou Herd Public Hearing. p.132.
[72] PR (BNE) – 167: Transcript – April 7, 2016 (DAY 2) – Bluenose East Caribou Herd Public Hearing. P 17.
[73] PR (BNE) – 034: Dogrib Knowledge on Placenames, Caribou and Habitat, Final Report. 2002.
[74] Ibid.
[75] Ibid.
[76] PR (BNE) – 122: Transcript – Tłı̨chǫ Government Caribou Workshop, Whatì, NT – Day 2. p.129
[77] Ibid. pp.132-133.

The WRRB, SRRB and the Nunavut Wildlife Management Board (NWMB) are the three co-management tribunals with primary management authority over the Bluenose-East ʔekwǫ̀ herd. As per the collaborative MOU signed in October 2016, the WRRB and SRRB have maintained linked public records and collaborated in the conduct of their proceedings prior to making final decisions under their respective jurisdictions. As per Section 12.5.4 of the Tłı̨chǫ Agreement, on April 5, 2016, the WRRB requested that the NWMB identify whether further consultation was required prior to the WRRB's final decision on TG and ENR's joint management proposal. To date, no reply has been received. The NWMB has received a proposal from the Government of Nunavut to establish a bulls-only TAH of 340 for the Bluenose-East ʔekwǫ̀ herd, and NWMB has scheduled a public hearing for June 16-17, 2016 in Cambridge Bay, NU.

While the WRRB is responsible for managing wildlife in Wek'èezhìı on an ecosystemic basis using the best available information, 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.

8. WRRB DETERMINATION & RECOMMMENDATIONS ON LIMITATIONS TO BLUENOSE-EAST ʔEKWǪ̀ (BARREN-GROUND CARIBOU) HARVEST

8.1 Harvest of Bluenose-East ʔekwǫ̀ (Barren-ground Caribou)

Resident, Outfitted and Commercial Harvest

Prior to 2005, NWT resident harvesters were allocated five tags (any sex or age), non-resident and non-resident alien harvesters were allocated two bull-only tags, and the quota for each ʔekwǫ̀ outfitter group (Hunters' and Trappers' Associations (HTA) and Non-HTA) in the North Slave Region was 1260 animals (total outfitted harvest = 2520). As well, Tłı̨chǫ communities received tags to be used for commercial meat sales. During 2005/06, the number of tags for resident hunters was reduced from five to two bull-only tags and the quota for non-HTA outfitters was reduced from 1260 to 1163. In 2007, the number of tags for non-resident and non-resident alien harvesters was reduced from two to one bull-only tag, all commercial tags for Tłı̨chǫ communities were eliminated, and the total quota for both HTA and non-HTA outfitters was reduced to 750 animals.[78] However, resident and outfitted harvest of ʔekwǫ̀ was primarily from the Bathurst herd prior to 2010.[79]

On January 1, 2010, ENR implemented interim emergency measures, which included the closure of ʔekwǫ̀ commercial, outfitted and resident harvesting in the North Slave region,

[78] PR (BNE) – 124: Report on a Public Hearing Held by the Wek'èezhìı Renewable Resources Board 22-26 March 2010 & 5-6 August 2010, Behchokǫ̀, NT and Reasons for Decisions Related to a Joint Proposal for the Management of the Bathurst Caribou Herd. 2010.

[79] PR (BNE) - 055: Overview: Monitoring of Bathurst and Bluenose-East Caribou Herds, Unpublished Report. Sept 2014.

including Wek'èezhìı.[80] Since 2010, the WRRB has continued to recommend that commercial, outfitted and resident harvest remain closed in Wek'èezhìı.

Aboriginal Use of the Land and Harvesting

Dene-ʔekwǫ̀ relations are close as they have co-inhabited and travelled through the same landscape since long before the arrival of European explorers, traders and missionaries.[81] It is critical to the understanding and management of ʔekwǫ̀ in Wek'èezhìı to know that the Tłıchǫ take their respectful behaviour towards ʔekwǫ̀ very seriously as they provide much more than food security. All Aboriginal peoples who harvest BNE ʔekwǫ̀ have similar relations and stewardship responsibilities as is expressed by the Métıs representative, Mr. Shin Shiga: "*We participate in this proceeding to ensure that the proposed management plan is compatible with NSMA's values*."[82]

Dr. John B. Zoe explained, place names and stories reflect the intimate relationship and knowledge of ʔekwǫ̀ behaviour and the landscape they travel through during the years.[83] Place names such as:

ʔmǫǫ̀ts'ıɻtɻ[84]	The lake is named for the fatty ʔekwǫ̀ guts that sit around the wall of the belly.
ʔetsaàʔìɻtì	There is a ʔekwǫ̀ crossing here at a narrow spot on the lake where there is a place to lie in wait for ʔekwǫ̀.
Bògǫʔehdaà	A point named for the fact that it is a good place for building a fire so you can dry meat.
Gots'ǫkàtì	Elder Laiza Koyina's story tells of how she carried packs of drymeat from here to Behchokǫ̀. She also tells of how her mother delivered the baby of an Inuit woman at the edge of the woods near this lake.
K'òtì	Stories are told of this lake because lots of people live here because there was always lots of ʔekwǫ̀ and moose.
Kwık'ìıʔedaà	This site is on both sides of a place where ʔekwǫ̀ travel.

When hunting ʔekwǫ̀, Dene harvest only what is needed, which is dependent on the number of people in their camp; as Elder Dora Nitsiza said, "*Only use what you need, share the rest."*[85] Then, as now, Dene have a tendency to use approximations when

[80] PR (BNE) – 124: Report on a Public Hearing Held by the Wek'èezhìı Renewable Resources Board 22-26 March 2010 & 5-6 August 2010, Behchokǫ̀, NT and Reasons for Decisions Related to a Joint Proposal for the Management of the Bathurst Caribou Herd. 2010.
[81] PR (BNE) – 166: Transcript – April 6, 2016 (DAY 1) – Bluenose-East Caribou Herd Public Hearing. pp.128-129.
[82] PR (BNE) – 169: Transcript – April 8, 2016 (DAY 3) – Bluenose-East Caribou Herd Public Hearing. p 57.
[83] PR (BNE) – 166: Transcript – April 6, 2016 (DAY 1) – Bluenose-East Caribou Herd Public Hearing. p. 129.
[84] PR (BNE) – 034: Dogrib Knowledge on Placenames, Caribou and Habitat, Final Report. 2002.
[85] PR (BNE) – 105: Monitoring the Relationship between People and Caribou (Modified Version of the Report Monitoring Caribou: Tłıchǫ Laws and Indıcators of Change. 2008.

discussing harvest, as it always depends on how many people need to be fed at any given time. As Elder Jimmy Martin explained on February 21, 2007 in Whatì,

> *"A single person would take down about twenty to twenty-five ʔekwǫ̀ but a large families use to kill more and that depended on how many were in the family. ʔekwǫ̀ is very important to us and what I'm saying is the truth. I paddled with men to the Arctic with a canoe from a very young age and I did that every summer until I was in my late twenties."*[86]

The Dene in the NWT have intimate relations with ʔekwǫ̀. Nevertheless, they harvest much of what is provided by the dè and what is culturally appropriate. As Elder Joe Rabesca explained in response to a question about what is harvested when the ʔekwǫ̀ do not come, he explained,

> *"we stopped over at Hottah Lake ... We have travelled and worked and trapped in that area…As well, when they're drying meat, they bring dry meat home. And so as well, even Francis and I, we end up bringing almost ten (10) fish home, because the fish were so good up in that area".*[87]

Fisheries are key resources when travelling and harvesting the dè. Place names direct people to "*the fisheries along the way, areas where the moose live, and the different types and methods of harvesting that are embedded in the landscape".*[88] Place names such as:

Tł'àmèὲ[89]	Translates as 'bay net'. There are lots of łiwe of all kinds at this place.
K'ıąhkw'àıkaà	Translates as 'dried birch bark narrows'. This place is named for the abundance of birches.
Nǫ̀ǫhʔèe	Name for the animals (mainly moose) which swim across here. When they swim across they don't turn back, they keep on swimming to Nǫ̀hʔèeʔehdaà.

Estimated harvest from 1998 to 2005, primarily by Délıneǫ̀got'ıne, was approximately 1260 Bluenose-East ʔekwǫ̀ per year, and about 60% cows.[90] Harvest in the North Slave region, primarily zones R/BC/01, R/BC/02 and S/BC/03 (Figure 6), has been monitored by a combination of community monitors, officer patrols and check stations. The estimated Bluenose-East harvest per year was: 2009/10 – 3,466, 2010/11 – 2,918,

[86] PR (BNE) – 121: Transcript – Tłıchǫ Government Caribou Workshop, Whatì, NT – Day 1. 2007.
[87] PR (BNE) – 167: Transcript – April 7, 2016 (Day 2) – Bluenose-East Caribou Herd Public Hearing. 2016. pp131-132.
[88] PR (BNE) – 073: Proceedings of the 13th North American Caribou Workshop, Winnipeg, MB, Canada, 25-28 October 2010.
[89] PR (BNE) – 034: Dogrib Knowledge on Placenames, Caribou and Habitat, Final Report. 2002.
[90] PR (BNE) - 055: Overview: Monitoring of Bathurst and Bluenose-East Caribou Herds, Unpublished Report. Sept 2014.

2011/12 – 1,766, 2012/13 – 2,562 and 2013/14 – 3,016 (average of about 2700 caribou/year), and approximately 65% cows.[91] ENR suggested that wounding loss and unreported harvest may increase the harvest to 4000/year.[92]

An increase in the harvest since winter 2009/10 may reflect a shift in hunting effort from the Bathurst herd to the Bluenose-East herd.[93] Given the assumption that the 65% of the total reported harvest are cows, the estimated cow harvest would be ~11% of the 2015 estimate of breeding females for the BNE herd.[94]

Annual harvest of Bluenose-East ʔekwǫ̀ in Nunavut has been estimated by wildlife officers, in recent years, at about 1000 animals, primarily harvested by the community of Kugluktuk.[95]

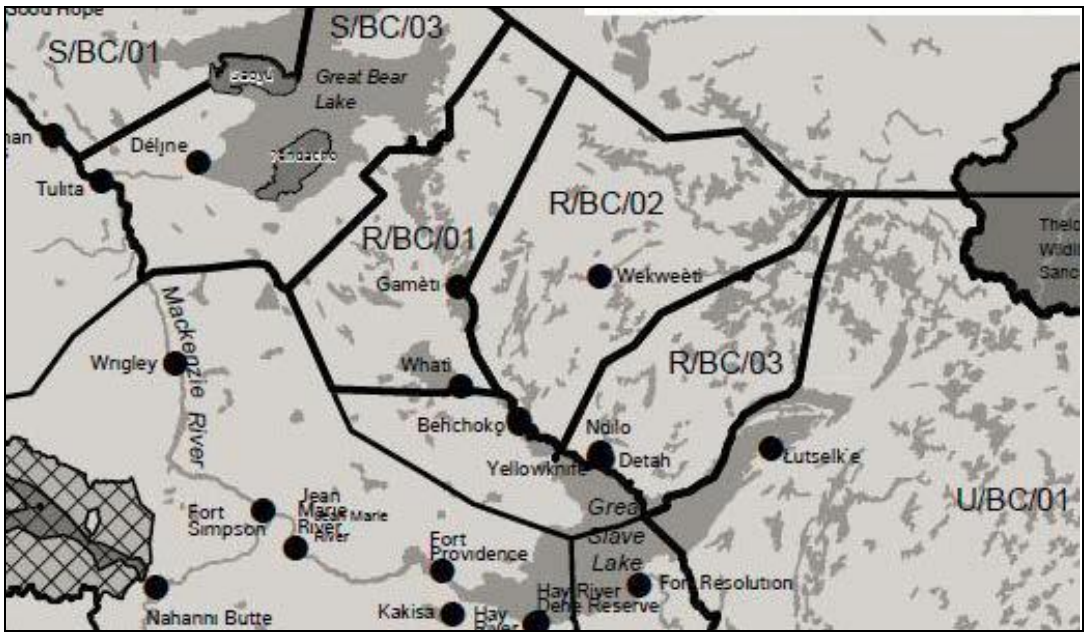

Figure 6: NWT ʔekwǫ̀ (barren-ground caribou) management zones in the main Bluenose-East ʔekwǫ̀ winter range and adjacent areas.[96]

[91] PR (BNE) - 055: Overview: Monitoring of Bathurst and Bluenose-East Caribou Herds, Unpublished Report. Sept 2014; and PR (BNE) - 006: TG & ENR Information Request No.1 Responses - Bathurst Caribou Herd. 2016. Question #10.
[92] PR (BNE) - 055: Overview: Monitoring of Bathurst and Bluenose-East Caribou Herds, Unpublished Report. Sept 2014.
[93] Ibid.
[94] PR (BNE) - 006: TG & ENR Information Request No.1 Responses - Bathurst Caribou Herd. 2016. Question #10.
[95] PR (BNE) – 147: ENR to WRRB – Management Recommendations for Bathurst and Bluenose-East Caribou Herds for Consideration during the WRRB Meeting Sept 23-24, 2015, 22 Sep 2015.
[96] ENR. 2015. Northwest Territories Summary of Hunting Regulations, July 1, 2015 to June 30, 2016.

8.1.1 Total Allowable Harvest

Aboriginal Evidence

TG stated explicitly "*that a total allowable harvest for the Bluenose-East herd be established at 950 for at least the next three years and until the herd shows signs of sustained recovery as indicated by a positive rate of increase in estimates of breeding females."*[97] Similarly NSMA stated "*that a timely introduction of temporary harvest management using Total Allowable Harvest, is an acceptable approach to BNE ʔekwǫ̀ Management*"[98] The DFN did not comment on issues in the Joint Proposal; however, they did present their Dèlı̨nę Conservation Plan in an effort to renew the conservation approach of their Dene ancestors.

All the Dene participants at the TK Technical Session thought it was important to think about the bigger picture. They agreed that discussions have to get away from the right to hunt, but also need to get away from talking about quotas. Both the Tłı̨chǫ and the Délı̨nę̨got'ıne participants explained "*leaders tell their communities where to hunt; we move around*."[99] More specifically Mr. Walter Bayha explained,

> "*And one of the things I remember when I was a very small child is our people always were listening to find out where the resources are, abundance. This is why our people don't talk – we don't talk about numbers. We talk about whether the animals are there in enough – enough so that we can harvest, or whether there's so little that we – we stay away from them. The Dene people don't chase things until the last – we don't chase them. We – we don't -- we leave them alone*."[100]

NSMA agreed, in principle with the temporary harvest management and assignment of total allowable harvest,[101] whereas Délı̨nę̨got'ıne did agree the numbers should be restricted but preferred their Chief direct them.[102] Mr. Walter Bayha expanded by saying,

> "*We just sat there as leaders and listened to the Elders and let them speak fully [and] … the community really wanted to be a part of what is going to happen in this proposal, and wanted to make sure that they were involved."*[103]

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[97] PR (BNE) – 173: TG to WRRB – Final Written Argument – Bluenose-East ʔekwǫ̀ Herd Public Hearing. 2016.
[98] PR (BNE) – 125: NSMA to WRRB – Final Written Argument – Bluenose-East ʔekwǫ̀ Herd Public Hearing. 2016.
[99] PR (BNE – 092: Summary of Traditional Knowledge Session, March 22, 2016 – Bluenose-East ʔekwǫ̀ Herd; PR (BNE) – 125: ʔekwǫ̀ Migration and the State of their Habitat – Final Report, March 2001; PR (BNE) – 086: Using traditional Knowledge to adapt to Ecological Change: Denésǫłıné Monitoring of ɂekwǫ̀ Movements; PR (BNE) – 129: *Belarewílé Gots'ę́ ʔekwę́* – Caribou for All Time: A Délı̨nę Got'ıne Plan of Action. 2015.
[100] PR (BNE) – 168: Transcript – April 8, 2016 (Day 3) – Bluenose East ʔekwǫ̀ Herd Public Hearing. p.127.
[101] PR (BNE) – 171: NSMA to WRRB – Final Written Argument – Bluenose-East Caribou Herd Public Hearing.
[102] PR (BNE) – 092: Summary of Traditional Knowledge Session, March 22, 2016 - Bluenose-East Caribou Herd; PR (BNE) – 129: Belarewíle Gots'ę́ɂekwę́ – Caribou for all time - A Délı̨nę Got'ıne Plan of Action; and, PR (BNE) -168: Transcript – April 8, 2016 (DAY 3) – Bluenose-East Caribou Herd Public Hearing. p.104.

During the public hearing, the Tłı̨chǫ public also provided evidence that they would prefer their own leadership to oversee harvest management in conjunction with talking with community members.[104]

The 2007 Tłı̨chǫ Government's workshop on ʔekwǫ̀ brought clarity to the topic of harvesting male and female ʔekwǫ̀. During day one, Elder Jimmy Martin emphasized the importance of the male ʔekwǫ̀ for the survival and well-being of the herd when he said:

> "*My father used to tell me that when the herd migrates the bulls kept the females in the inner circle to protect them from being attacked by the wolves. …The bulls are usually [most often] killed by the wolves because they are on the outside circle of the herd".*[105]

He went on to explain the importance of knowing the age and sex of the ʔekwǫ̀ being harvested, and the appropriate name.[106]

Names of ʔekwǫ̀ by Age[107]

Male ʔekwǫ̀	
Wedzıaa	Smallest male ʔekwǫ̀
Yaagoa	Third year male ʔekwǫ̀/ next in size to yaagoo
Yaagoo	Male ʔekwǫ̀ next in size to yaagoocho
Yaagoocho	Male ʔekwǫ̀ next in size to wedzih
Wedzıh	Biggest male ʔekwǫ̀
Female ʔekwǫ̀	
Tsıdaa	Immature female ʔekwǫ̀
Dets'èa	Young female ʔekwǫ̀
Wezhàa	Mother ʔekwǫ̀
Dets'è	Mature female ʔekwǫ̀
Calves	
K'ǫ̀ǫtsıa	Recently born calf; first summer
ʔekwǫ̀tsıa	ʔekwǫ̀ calf in its' first year
Whaàgsıa	Second year ʔekwǫ̀ calf

[104] PR (BNE) – 167: Transcript – April 7, 2016 (DAY 2) – Bluenose-East Caribou Herd Public Hearing; and PR (BNE) -168: Transcript – April 8, 2016 (DAY 3) – Bluenose-East Caribou Herd Public Hearing.
[105] PR (BNE) – 121: Transcript – Tłı̨chǫ Government Caribou Workshop, Whatì, NT – Day 1. 2007.
[106] Ibid.
[107] PR (BNE) – 125: Caribou Migration and the State of their Habitat – Final Report, March 2001.

On day two, one group reported they *"want caribou hunters banned from shooting female cows and baby calves and hunters shouldn't disturb the cows and calves".*[108] Another group noted similar concerns to those of the elders and recommended that "*when people go hunting they should kill enough caribou to feed their family and be careful how many cows they kill. They want people not to shoot too many caribou cows."* [109] Further, Elder Joe Black expressed his concern for male ʔekwǫ̀, when he said:

> "*I haven't spotted a bull among the herd in the last two years when I go hunting with other people I see cows and calves but never a bull. … [Recently] I spotted a few bulls in the herd but less than what I used to see years ago. … I know we can't be hasty in making a decision … but I do have one suggestion. I think people that hunt should stop killing bulls for a while until the population is back to its normal numbers."*[110]

On day three, Elder Louis Zoe, who has spent considerable time around ʔɻtsʼèetɻ harvesting with his parents, stressed the importance of male ʔekwǫ̀, and explained their nomadic lifestyle when he said: "*Once we're on the barrenlands, my father used to kill about five large bulls. That many caribou makes about ten parcels. But that was the only time my dad would kill bulls."*[111] Later, he emphasized the importance of protecting the large bulls:

> *"We spoke about protecting the ʔekwǫ̀ for this generation and the others that will follow after us; our priority now is to begin protecting the bulls because they ensure the reproduction of caribou in the Tłı̨chǫ country. I think protecting the bulls should be on the list of recommendations from this meeting."*[112]I

Further to a question on the harvesting of male or female ʔekwǫ̀, Elder Phillip Huskey discussed how female and male ʔekwǫ̀ are stressed at different times of their annual cycle, and therefore they are harvested at different times of the year. He explained:

> "*Around the beginning of March …they [ʔekwǫ̀] would – they would start to travel back in the springtime toward their calving grounds. During that time our people, our ancestors never bothered to kill when they were going back to the calving grounds. They never killed any female cows or pregnant female cows. Maybe they killed young bulls and younger bulls, but they never killed female cows. ..Around May is when the big bulls would follow the female caribou and to the calving grounds. At that time the big bulls are so fat."* [113] "*So when our*

[108] PR (BNE) – 122: Transcript – Tłı̨chǫ Government Caribou Workshop, Whatì, NT – Day 2. 2007.
[109] Ibid.
[110] Ibid.
[111] PR (BNE) – 123: Tłı̨chǫ Government Caribou Workshop, Whatì, NT – Day 3.
[112] Ibid.
[113] PR (BNE) – 166: Transcript – April 6, 2016 (DAY 1) – Bluenose-East Caribou Herd Public Hearing. pp,146-147.

ancestors hunted…they would get a lot of big bulls and really fat bulls. And that's when they gathered meat."[114]

In summary, given conservation concerns, evidence from Aboriginal parties supports the need for a specific management framework for the Bluenose-East herd, including a limit on harvesting.

Scientific Evidence

Harvest is a factor affecting ʔekwǫ̀ mortality that can be controlled directly. The current dramatic decline in the Bluenose-East herd situation dictates that actions to limit mortality are required. In general, herds declining rapidly are most sensitive to additional mortality from harvest, particularly cow harvest, thus conservative harvests are recommended for such herds.[115] A harvest of 950 bulls, with a focus on younger bulls, aims to control the potential contribution of harvest mortality, a component of total mortality, to further herd decline.[116]

Additionally, a harvest of 950 can still allow for Aboriginal harvest and maintenance of cultural practices, with the proposed allocation viewed as being the minimum allocation required for sustaining the way of life of the Tłı̨chǫ, and viewed as an acceptable level of harvest in the short-term by ENR and TG.[117] The harvest of 950 represents approximately 2.5% of the estimated herd size, and is conservative when compared to the ACCWM's orange zone recommended harvest limit of 1800 (2800 in total for the herd, including Nunavut) from 2014/15.[118]

Though limiting harvest helps to control one factor directly influencing mortality, no harvest is sustainable from a ʔekwǫ̀ herd that has a declining natural trend. Limiting harvest to 950 bulls, i.e. eliminating cow harvest, does not ensure that the herd will stabilize or recover, given that vital rates are consistent with a declining trend, and that there is an accelerating decline in the number of breeding cows.[119] Any harvest can potentially lead to continued decline, and the potential for wounding loss and underreporting of harvest adds uncertainty and risk to any harvest level that may be proposed, as the actual number of ʔekwǫ̀ harvested may not be what is proposed. Further, though harvest may be limited to 950 there may not be a measurable response in the ʔekwǫ̀ population that could be directly attributed to implementing a 950 bulls-only

[114] PR (BNE) – 168: Transcript – April 8, 2016 (DAY 3) – Bluenose-East Caribou Herd Public Hearing. p, 243.
[115] PR (BNE) – 006: TG & ENR Information Request No.1 Responses – Bluenose-East Caribou Herd. Question 11. 2016.
[116] PR (BNE) – 053: Harvest recommendations for barren-ground caribou based on herd risk status: A rule of thumb approach. 2014.
[117] PR (BNE) – 135: Tłı̨chǫ Government to WRRB – Bluenose-East Caribou Herd Public Hearing Presentation. 2016; and PR (BNE) – 174: ENR to WRRB – Final Written Argument – Bluenose-East Caribou Herd Public Hearing. 2016.
[118] PR (BNE) – 001: Joint Proposal on Management Actions for Bluenose-East Caribou 2016-2019. 2016.
[119] PR (BNE) – 167: Transcript – April 7, 2016 (Day 2) – Bluenose-East Caribou Herd Public Hearing. 2016. pp.27-31.; PR (BNE) – 006: TG & ENR Information Request No.1 Responses – Bluenose-East Caribou Herd. Question 11. 2016.

harvest, making accurate assessment of the proposed harvest management action difficult.[120]

Predation is another cause of caribou mortality, with wolves killing calves and adult ʔekwǫ̀ throughout the year, and grizzly bears generally killing ʔekwǫ̀ around and after the peak of calving. Environmental factors, such as drought and severe insect harassment, are difficult or impossible to practically control through management actions, and can influence cow survival rate, calf recruitment, and pregnancy rate. Unless the vital rates show improvement, the Bluenose East ʔekwǫ̀ herd is *"likely to decline further in the next few years"*.[121].

Conclusion

While a reduced harvest of 950 bulls does not ensure that the Bluenose-East ʔekwǫ̀ herd will stabilize or recover, harvest limitations based on the precautionary principle will reduce any direct and/or additional sources of mortality to Bluenose-East ʔekwǫ̀ cows caused by people.[122] In addition to a limited bulls-only harvest, additional management and monitoring actions that will focus on reducing predation and disturbance to ʔekwǫ̀ and their habitat are required.[123] Therefore, the WRRB concluded that the preponderance of the Aboriginal and scientific evidence submitted suggests that harvest restriction is both warranted and urgently required.

Modeling suggests that herds with high cow survival, high calf productivity, and rapid rates of increase can tolerate annual harvest rates of up to 5-8%. Alternatively, herds with a declining trend usually have low calf productivity and low adult survival, and harvest rates as low as 1-2% may increase the rate of decline.[124]

Figure 7 shows an approach to how the harvest rate and sex ratio of harvest could be adjusted to the herd's risk status. Indicators of a herd at high risk include low calf recruitment, low cow survival, poor condition as assessed by harvesters, high wolf numbers and substantial disturbance on key parts of the herd's range. Harvest in high-risk herds is tolerable at 1% or less of the herd and may increase to 2, 3 and 4% of the herd in lower-risk herds. Emphasis on harvest of bulls-only or a high percentage of bulls in the harvest would be greatest in high-risk herds. This approach is contingent upon on-going reliable reporting of harvest by all harvesters, despite the herd's size or trend.

[120] Ibid. pp.159-160.
[121] PR (BNE) – 166: Transcript – April 7, 2016 (Day 1) – Bluenose-East Caribou Herd Public Hearing. 2016. p.57.
[122] PR (BNE) – 006: TG & ENR Information Request No.1 Responses – Bathurst Caribou Herd. Question 10. 2016.
[123] Ibid.
[124] PR (BNE) - 055: Overview: Monitoring of Bathurst and Bluenose-East Caribou Herds, Unpublished Report. Sept 2014

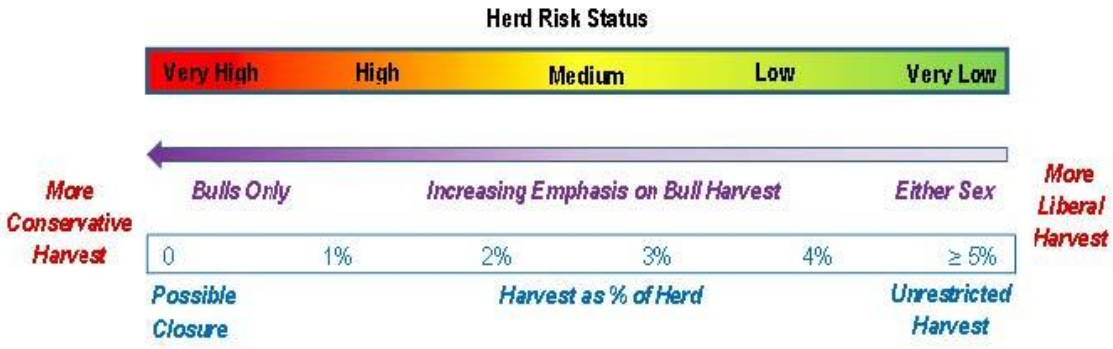

Figure 7: Suggested approach to recommending rate (% of herd) and sex ratio of harvest depending on a herd's risk status.[125]

Although over-harvesting bulls is also not desirable, a healthy bull can breed many cows. Emphasis on bull harvest over cow harvest should be greatest in declining herds and/or herds at low numbers.[126] However, as noted by the Tłı̨chǫ elders, it is also important to protect the bulls in order for them to continue guarding the cows from dìga and providing strong genetic material for the future herd.

Demographic indicators, including low calf recruitment, low cow survival rates, and low pregnancy rate, and changing environmental conditions, such as severe drought conditions, significant forest fire events and increased levels of disturbance on key parts of the range, suggest a decline of the Bluenose-East ʔekwǫ̀ herd between 2010 and 2015 and an accelerated decline between 2013 and 2015.

Based on the demographic indicators and evidence from Tłı̨chǫ elders, the WRRB concluded that the Bluenose-East herd is at a higher risk than proposed by TG and ENR; therefore, the proposed TAH of 950 bulls-only ʔekwǫ̀ (approximately 2.5% of the population estimate) is not conservative enough. As such, the Board believes that an acceptable harvest would be 1.9%, i.e. a TAH of 750 bulls-only ʔekwǫ̀. A limited harvest of *yaagoa* (younger bull; third year male ʔekwǫ̀) in the early spring, and *wedzıh* (biggest male ʔekwǫ̀) in the late spring and fall will permit food security for Tłı̨chǫ citizens, slow the rate of herd decline, and ensure that cows can still be protected by the wedzıh.

As per Section 12.6.3 of the Tłı̨chǫ Agreement, any harvest limit

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

[125] PR (BNE) - 053: Harvest recommendations for barren-ground caribou based on herd risk status: A rule of thumb approach. ENR, November 2013.
[126] Ibid.

In making its decision about harvest limitations, the WRRB considered the risks to the herd from a recent high rate of decline, uncertainties about the underlying mechanisms for the decline and the importance of ʔekwǫ̀ for food security and cultural strength. The Board believes that there is a serious conservation concern for the Bluenose-East ʔekwǫ̀ herd given the continuing decline in the breeding females, poor vital rates, and impacts of environmental factors, e.g. drought, severe insect harassment and increased levels of disturbance to key parts of the range. Additionally, evidence from the public during the proceeding, as well as from Tłı̨chǫ elders during the 2007 TG workshop, suggest a willingness to restrict harvesting, and leave the ʔekwǫ̀ alone. In an effort to slow the rate of decline, offset the effects of unreported harvest, and reduce the bulls-only harvest to ensure the cows are protected, the Board believes a more conservative TAH is required; therefore, a TAH of 750 bulls-only ʔekwǫ̀ must be implemented without delay.

In the Tłı̨chǫ Agreement, a TAH level is defined as *"in relation to a population or stock of wildlife, the total amount of that population or stock that may be harvested annually"*, i.e. a TAH is an absolute number of caribou that can be harvested from a particular herd. As per Section 12.5.5(a)(i) of the Tłı̨chǫ Agreement, the WRRB has sole responsibility for making a final determination with respect to a TAH for Wek'èezhìı.

Determination #1-2016: The Board determines that a total allowable harvest of 750 bulls-only for all users of the Bluenose-East ʔekwǫ̀ herd within Wek'èezhìı be implemented for the 2016/17, 2017/18, 2018/19 harvest seasons.

8.1.2 Allocation of Total Allowable Harvest

TG acknowledged that a total harvest not exceeding 3% of the population estimate may be in order, and it should target bulls over cows.[127] Based on the 2015 population estimate and ENR's recommended allocation from the 2014/15 harvest season, TG and ENR proposed a herd-wide allocation for the Bluenose-East ʔekwǫ̀ herd as 950 caribou, i.e. Tłı̨chǫ 373 (39.29%), Sahtú 163 (17.14%), Dehcho 15 (1.61%), Inuvialuit 8 (0.89%), Northwest Territories Métis Nation 14 (1.43%), Akaitcho 20 (2.14%), NSMA 17 (1.79%) and Nunavut 339 (35.71%).[128] Although TG and ENR have no authority over wildlife management in Nunavut, a consistent overall approach for Aboriginal harvest of this migratory species is desired.[129]

The proposed allocation was based on the following:

- The results of the 2015 calving ground survey;
- The *Taking Care of Caribou* management plan which would place the Bluenose-East herd in the orange declining zone, where a TAH acceptable to ACCWM can be established;
- ENR's harvest rule-of-thumb and associated modeling of harvest and ʔekwǫ̀ populations;

[127] PR (BNE) – 156: TG to WRRB – WRRB Meeting September 9-10, 2015, 25 Aug 2015.
[128] Ibid.
[129] PR (BNE) – 001: Joint Proposal on Management Actions for Bluenose-East Caribou 2016-2019. 2016.

- Feedback received from Aboriginal governments and co-management partners after the 2014/15 harvest season;
- Feedback received from Aboriginal governments and co-management partners through participation in the Barren-Ground Caribou Technical Working Group through the Summer & Fall of 2015;
- Feedback received from attending the ACCWM meeting on August 7, 2015 to discuss the preliminary results of the survey;
- Tłı̨chǫ Government recommendations of August 25, 2015 to the WRRB on Bluenose-East harvest;
- Feedback provided by Aboriginal governments and co-management partners in response to ENR's letter of September 24, 2015 sharing the preliminary results of the 2015 calving ground surveys for the Bluenose-East herd;
- The need to consider the Nunavut harvest;
- The harvest results for the 2014/15 harvest season; and,
- The WRRB recommendations of 2010 for this herd, and the herd's much reduced numbers and its downward acceleration similar to the Bathurst herd's most rapid decline between 2006 and 2009.[130]

On February 26, 2016, the Inuvialuit Game Council and Wildlife Management Advisory Council (NWT) proposed an alternate allocation of a TAH of 950. The Inuvialuit, NWT Métis Nation, NSMA, Akaitcho and Dehcho would each have a minimum harvest allocation of 2%, totalling 10%. The Sahtú, Tłı̨chǫ and Kugluktuk (Nunavut) would share the remaining 90%.[131]

On March 4, 2016, the WRRB requested that TG and ENR submit information to support the proposed allocations for the Bluenose-East ʔekwǫ̀ herd. While TG and ENR provided additional information to support the proposed herd-wide allocation formula developed, neither government provided a proposal for allocations in Wek'èezhìı only.

Section 12.5.5(a)(ii) of the Tłı̨chǫ Agreement states that *"the WRRB shall make a final determination about the allocation of portions of any TAH for Wek'èezhìı to groups of persons or for specified purposes"*.

As the Board does not have the evidence necessary to make specific allocations in Wek'èezhìı, the WRRB concluded that they would express the allocation proportionately, basing their decision on TG and ENR's considerations above and its authority within Wek'èezhìı only.

Determination #2-2016: The Board determines that the proportional allocation of the total allowable harvest of the Bluenose-East ʔekwǫ̀ herd for the 2016/17, 2017/18, 2018/19 harvest seasons shall be as follows:

[130] PR (BNE) – 036: ENR to WRRB – Allocation Information – Bluenose-East Caribou Herd. 2016.
[131] PR (BNE) – 024: WMAC-IGC to WRRB – Proposal for Bluenose-East Caribou Herd Allocation. 2016.

- Tłı̨chǫ Citizens: 39.29%
- Members of an Aboriginal people who traditionally harvest Bluenose-East ʔekwǫ̀ (includes Nunavut): 60.71%.

TG should determine distribution of the allocation with Tłı̨chǫ communities, and ENR should determine distribution of the allocation to members of an Aboriginal people who traditionally harvest Bluenose-East ʔekwǫ̀ in consultation with those groups.

8.2 Wildlife Management Zones

An alternative to the mobile conservation zone is managing harvest from ʔekwǫ̀ herds through a set of smaller sub-zones with fixed boundaries (Figure 8). TG and ENR have proposed an exploration of the sub-zone approach as well as other alternatives, with the overall goal being the definition of zones for ʔekwǫ̀ herds that maintain harvesting opportunities from the Bluenose-East and Beverly-Ahiak herds, protect the Bathurst herd, and provide a clear and easily understandable way of defining zone boundaries. In addition, TG and ENR should develop criteria for identifying when the herds overlap in their winter distribution and how the overlap will be managed, including the closure of zones to avoid inadvertent harvesting of Bathurst ʔekwǫ̀.

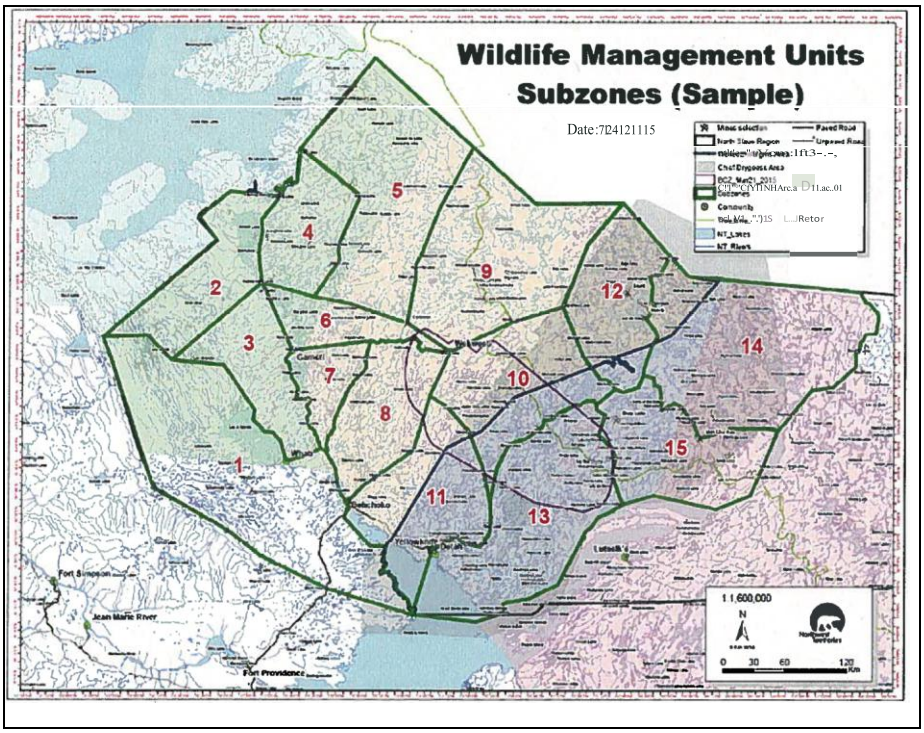

Figure 8: An example of ʔekwǫ̀ (barren-ground caribou) management sub-zones.[132]

[132] PR (BNE) – 156: TG to WRRB – WRRB Meeting September 9-10, 2015, 25 Aug 2015.

Recommendation #1-2016: The Board recommends that TG and ENR come to an agreement on the most effective wildlife management zone approach to differentiate between ʔekwǫ̀ herds, and then implement the approach with criteria for managing any overlaps between herds, for the 2016/17, 2017/18, and 2018/19 harvest seasons.

8.3 Monitoring of Harvest under the TAH

In Wek'èezhìı, harvesting activity is monitored through a check station at the junction of the winter roads to Whatì, Gamètì and Wekweètì and by Tłı̨chǫ community monitors, hired by TG. The community monitors keep ENR updated on activities on the land and report any infractions.[133] In addition, aerial reconnaissance flights throughout the fall and winter harvest seasons will be conducted to check for any harvesting activity within wildlife management zones and along winter roads.

Recommendation #2-2016: The Board recommends that TG and ENR provide weekly harvest updates to the WRRB and the general public for the Bluenose-East ʔekwǫ̀ herd throughout the fall and winter harvest seasons for the 2016/17, 2017/18, and 2018/19.

Recommendation #3-2016: The Board recommends that TG and ENR provide weekly updates to the WRRB and the general public on aerial and ground-based compliance surveillance of the Bluenose-East ʔekwǫ̀ herd throughout the fall and winter harvest seasons for the 2016/17, 2017/18, and 2018/19.

Officer presence will be increased in the communities if hunting pressure increases, but the primary approach is to work with community harvesters to educate them about the management and conservation measures in place. Education and prevention are the primary tools used in achieving harvest compliance; prosecution will always be a tool of last resort.[134]

In addition, TG and ENR suggest that greater effort is needed for public and hunter education, with an emphasis on educating on reasons for reducing harvest of the Bluenose-East ʔekwǫ̀ herd, and promoting traditional practices of using all parts of harvested ʔekwǫ̀, minimizing wastage, harvesting bulls instead of cows, and related conservation education.

Recommendation #4-2016: The Board recommends that TG and ENR increase public education efforts and implement ENR's recently developed Hunter Education program in all Tłı̨chǫ communities. ENR should also implement the Hunter Education program for Aboriginal people who traditionally harvest Bluenose-East ʔekwǫ̀.

[133] PR (BNE) – 018: TG & ENR Information Request No.2 Responses – Bluenose-East Caribou Herd. Question 9. 2016.
[134] Ibid.

Evidence presented throughout the proceeding shows the long-term relationships between the Tłı̨chǫ, Sahtúgot'ine and Inuit, and the shared use of the Bluenose- East ʔekwǫ̀ herd in Wek'èezhìı, including at ʔı̨ts'èetì and Kǫk'èetì. Identified in 2007, Tłı̨chǫ communities want their leadership to formalize traditional protocols to ensure everyone, including in their own communities, take only what is needed and treat ʔekwǫ̀ as has been tradition.

Recommendation #5-2016: The Board recommends that TG negotiate ʔekwǫ̀ harvesting overlap agreements with Nunavut and the Sahtú region to make certain that existing relationships endure.

9. WRRB RECOMMENDATIONS ON DÌGA (WOLF) MANAGEMENT

9.1 Community-Based Dìga (Wolf) Harvesting Project

Community-based predator management actions for Bluenose-East ʔekwǫ̀ are supported by TG and ENR.[135] During the winter of 2015/16, TG and ENR proposed the community-based dìga harvesting pilot project on the Bathurst ʔekwǫ̀ herd range (the Project).[136] The WRRB supported the Project, which would train 6-10 participants from Wekweètì in effective field techniques to hunt, trap, skin and process dìga, ensuring that Tłı̨chǫ cultural practices were followed. If successful, the approach could be extended in 2016-2017 to the Bluenose-East herd and incorporated into an adaptive wolf management approach. Implementation and potential expansion of the Project to the Bluenose-East range will be tied to program objectives established through the wolf feasibility assessment outlined in Section 9.2, and as experience is gained from the pilot program.

Recommendation #6-2016: The WRRB recommends that if the Community-based Dìga Harvesting Project is to be expanded to other Tłı̨chǫ communities, a management proposal must be submitted to the WRRB for review and approval. Further, if the Project is to be expanded in scope, prior to the submission of a management proposal to the WRRB, an index of changing wolf abundance must be available and research on habitat quality and quantity on the Bluenose-East ʔekwǫ̀ herd range must be conducted.

9.2 Feasibility Assessment

TG concluded that in a time of crisis for the ʔekwǫ̀ herds, which is having a profound social impact on the Tłı̨chǫ, it is necessary to implement a dìga management program.[137] The Tłı̨chǫ public is frustrated that, while their harvest is being restricted, nothing is

[135] PR (BNE) – 001: Joint Proposal on Management Actions for Bluenose-East Caribou 2016-2019. 2016.
[136] PR (BNE) – 001: Joint Proposal on Management Actions for Bluenose-East Caribou 2016-2019. 2016; PR (BNE) – 119: Tłı̨chǫ Government and GNWT Management Proposal – Community-based Wolf Harvesting Project. 2016.
[137] PR (BNE) – 173: TG to WRRB – Final Written Argument – Bluenose-East Caribou Herd Public Hearing.

being done about the impact of dìga on ʔekwǫ̀. As Elder Bernadette Nasken clearly expressed:

> "*Because you put us in a very bad position, you -- --and so who is it that's managing our wildlife? … As wildlife officers you could easily harvest wolves. And I'm sure that's what your job is here to do, is using helicopters and harvest wood – maybe you could harvest wolves and using helicopter I'm sure you could do that I'm sure that's what your employment entails. The caribou doesn't disturb other wildlife, But it seems like you're restricting the caribou from us. But the wolf, that's a predator, you seem to love it… It – it destroys a lot of our food. What we're supposed to be eating, they're taking it."*[138]

In their revised joint proposal, submitted to the Board on May 31, 2010, TG and ENR identified proposed dìga management actions, including the development of survey and monitoring methodology and experimental design for removal of dìga on winter range and at den sites by fall 2010.[139] In October 2010, the WRRB recommended that focused dìga control not be implemented, and if TG and ENR contemplated focused dìga control in the future, a management proposal should be provided to the Board for its consideration.

During this proceeding, ENR has stated they will carry out the outstanding technical feasibility assessment of dìga management options in 2016, with the goal being to assess the technical feasibility of wolf management options for implementation within an adaptive management framework that would support recovery of ʔekwǫ̀ herds.[140] This assessment will be completed collaboratively with TG and the input of other interested parties, with the initial focus on the Bathurst herd. The assessment would be completed by November 2016. The assessment will include an examination of 1) current dìga monitoring to look for improvements in estimating dìga abundance, and 2) all options for dìga management, including costs, practicality and effectiveness.

TG and ENR were asked how the Board could assist and speed up completing the dìga feasibility assessment and implementing predator management, including the pilot project. ENR indicated that the Board could assist by identifying which dìga management options would be acceptable.[141] TG specified that the WRRB could assist in the design and delivery of the pilot project as well as be direct collaborators in the feasibility assessment led by ENR.[142]

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[138] PR (BNE) – 168: Bluenose-East Caribou Herd Public Hearing Transcript – Day 3 (April 8, 2016). 2016. pp.203-204.
[139] PR (BNE) – 124: Report on a Public Hearing Held by the Wek'èezhìı Renewable Resources Board 22-26 March 2010 & 5-6 August 2010, Behchokǫ̀, NT and Reasons for Decisions Related to a Joint Proposal for the Management of the Bathurst Caribou Herd. 2010.
[140] PR (BNE) – 001: Joint Proposal on Management Actions for Bluenose-East Caribou 2016-2019. 2016
[141] PR (BNE) – 168: Bluenose-East Caribou Herd Public Hearing Transcript – Day 3 (April 8, 2016). 2016. p. 26.
[142] Ibid. pp.28-29.

Due to its concerns regarding the time for completion of the assessment, the WRRB discussed showing leadership by leading a collaborative dìga feasibility assessment. The Board would collaborate with TG and ENR to develop a terms of reference for a working group, including the preparation of a scope of work for a writer. The feasibility assessment would be cost-shared equally by TG, ENR and the Board. TK from the hearings and public registry, as well as a focus group with elder men and women in Gamètì, would be summarized to suggest culturally appropriate ways to hunt and trap dìga as well as preferred lethal and non-lethal options for dìga management. It would include possible objectives and monitoring to rate success or failure. It would lay out approaches to monitoring of wolves beyond relying on estimating wolf abundance.

Recommendation #7-2016: The WRRB recommends TG and ENR support a collaborative feasibility assessment of options for dìga management, led by the Board.

10. IMPLEMENTATION

As per Section 12.5.12 of the Tłı̨chǫ Agreement,

> *"each Party shall, to the extent of its power under legislation or Tłı̨chǫ laws, establish or otherwise implement*
> *(a) a determination of the Wek'èezhìı Renewable Resources Board under 12.5.5 or 12.5.6; and*
> *(b) any recommendation of the Board as accepted or varied by it."*

As the Bluenose-East ʔekwǫ̀ herd is at a critical state, the WRRB requires its **Determinations #1-2016** and **#2-2016** be implemented by July 1, 2016, which is the start of the 2016/17 harvest season. Further, as monitoring of the ʔekwǫ̀ wildlife management units and Bluenose-East ʔekwǫ̀ harvest are linked to the implementation of a TAH, the Board expects that **Recommendations #1-2016, #2-2016** and **#3-2016** be implemented by July 1, 2016.

The Board would like the preliminary aspects of its **Recommendations #4-2016** and **#5-2016** to be initiated at the beginning of the 2016/17 harvest season with the understanding that these long-term processes will take time to fully implement. **Recommendation #6-2016** should be addressed with the Board following the completion of the pilot year of the Project in June 2017. The Board, in conjunction with TG and ENR, would like to initiate **Recommendation #7-2016** by June 2016 and have the assessment completed by September 2016.

11. CONCLUDING COMMENTS

With the Bluenose-East ʔekwǫ̀ herd in a critical state, all peoples who harvest in Wek'èezhìı must do their part to ensure the recovery of the herd. Users and managers

must act now, in whatever ways possible, to protect the herd so future recovery may be possible.

> *"And now we have to work together. There's a big issue that we have to tackle. … If we have to restrict our harvesting rights then we – we have to. … We also want our young people, when – when they get older to still be able to hunt caribou. So there is going to be some recommendations that a lot of people might not be happy with. There might be some restrictions put on us, but we have to live with that, because we are in crisis where the caribou is concerned. So if we tackle this precisely, cautiously, as with one mind, then we should be able to resolve this."*[143]
>
> Elder and Former Grand Chief Joe Rabesca

[143] PR (BNE) – 166: Transcript – April 6, 2016 (Day 1) – Bluenose-East Caribou Herd Public Hearing. 2016. pp. 119-120.

APPENDIX A **Joint Proposal on Caribou Management Actions in Wek'èezhìı, December 15, 2015**

Wek'èezhìi Renewable Resource Board
Management Proposal

1. Applicant Information
Project Title: Government of the Northwest Territories and Tłı̨chǫ Government Joint Proposal on Management Actions for Bluenose-East (BNE) Caribou 2016-2019
Contact Persons: **Organization Names:** **Addresses:** **Phone/Fax Numbers:** **Email addresses:** Sjoerd van der Wielen Manager, Lands Section Department of Culture and Lands Protection Tłı̨chǫ Government Behchokǫ̀, NT X0E 0Y0 Phone: 867-392-6381 Fax: 867-392-6406 sjoerdvanderwielen@tlicho.com Fred Mandeville Jr. North Slave Regional Superintendent Department of Environment & Natural Resources Government of the Northwest Territories Yellowknife, NT X1A 2P9 Phone: 867-873-7019 Fax: 867-873-6263 fred_j_mandeville@gov.nt.ca

2. Management Proposal Summary: provide a summary description of your management proposal (350 words or less).	
Start Date: November 1, 2016	**Projected End Date:** November 1, 2019
Length: 3 years	**Project Year:** 1 of 3
A June 2015 calving ground photographic survey of the Bluenose-East (BNE) herd caribou resulted in an estimate of 17,396 ± 4,616 breeding cows, which indicated that abundance of breeding females had decreased by ~29% per year since the June 2013 estimate of 34,472 ± 4,363 (95% CI; Figure 1; Boulanger 2015). Relative to the June 2010 and 2013 surveys, which suggested an annual rate of decrease of ~14%, the recent survey suggests that the rate of decrease in breeding females has more than doubled over the past two years. In view of this rapid decline, the Tłı̨chǫ Government (TG) and GNWT ENR are proposing management actions to stop the herd's decline and promote recovery for a 3-year period from November 2016 to November 2019. TG and ENR propose that resident and commercial harvest from this herd remain at 0 and that Aboriginal harvest be limited on a herd-wide basis to 950/year in total and 100% bulls.	

This harvest would be reviewed on an annual basis and as new information becomes available. Until an allocation accepted by all user groups becomes available, the allocation in NWT is proposed as 611 caribou (Tłı̨chǫ 373, Sahtú 163, Dehcho 15, Inuvialuit 8, NWT Métis Nation [NWTMN] 14, Akaitcho 20, and North Slave Métis Alliance [NSMA] 17). This would leave an allocation of 339 BNE caribou for Nunavut (NU). Although TG and ENR have no authority over wildlife management in NU, they will work collaboratively with responsible authorities in Nunavut towards implementing a consistent overall approach to Aboriginal harvest of this inter-jurisdictional herd that ranges through NT and NU.

TG and ENR will consider potential actions to address other factors that may affect the herd's trend and ability to recover, including predators and human disturbance on the landscape.

Key points include:

- ENR will lead a technical review of wolf monitoring methods in the NWT, which will be completed in 2016. With input from TG and other parties, ENR will also carry out a feasibility assessment of a full range of of predator management options that could support recovery of barren-ground caribou herds.
- Concurrent with the technical review, TG and ENR will explore specific and measurable predator management actions for BNE caribou that are community-based, culturally appropriate, and undertaken with territorial governments and wildlife management authorities. A community-based wolf hunting pilot project is being developed for the Bathurst range for winter 2015-2016 and if successful, methods may be extended to the BNE range in 2016-2017.
- There are currently no mines in Bluenose-East caribou range in the NWT, but Tundra Copper has carried out exploration activity on the BNE calving grounds; TG and ENR will participate in environmental assessment processes for development activities that may affect the BNE herd. TG and ENR expressed opposition to the Tundra Copper activities to the Nunavut Impact Review Board in 2015.

ENR and TG also recognize the importance of increased communication and engagement with communities and harvesters about the status of the caribou herds and about management actions underway, and the importance of accurate harvest reporting by all harvesters.

ENR will continue to monitor the BNE herd's status using calving ground photographic surveys every 3 years, annual spring recruitment surveys, regular fall composition surveys to monitor sex ratio, and annual reconnaissance surveys over the calving grounds. Satellite collars will be maintained on the herd (30 cows, 20 bulls) with annual additions to replace collars that are on caribou that die and collars that reach the end of their battery life . ENR and TG will work on an approach to sharing collar data.

Accurate monitoring of harvest will be essential to overall monitoring and management of this herd. TG is developing proposals for enhanced community-based visual monitoring of caribou and caribou habitat. Additional monitoring (e.g. more frequent fall composition surveys and annual assessments of pregnancy rate from fecal sampling in winter) may be carried out if resources are available.

A proposal with the same primary content as the current one will be submitted by ENR to the Sahtú Renewable Resources Board (SRRB) and the NWT Wildlife Management Advisory

Council (WMAC-NWT).

Please list all permits required to conduct proposal.

Renewable Resource Boards (WRRB, SRRB and WMAC-NWT) may hold public hearings to review proposals involving a Total Allowable Harvest (TAH) for the BNE herd, as included in this proposal.

NWT and Nunavut Wildlife Research Permits will be required annually to conduct monitoring recommended in this proposal.

3. Background (Provide information on the affected wildlife species and management issue)

A. Bluenose-East Caribou Status in 2015

The June 2015 calving ground photographic survey of the Bluenose-East caribou herd estimated 17,396 ± 4,616 (95% Confidence Interval) breeding females which, compared to the June 2013 estimate of 34,472 ± 4,363, indicates that the abundance of breeding females has declined by ~29% per year since 2013 (Fig. 1; Boulanger 2015). This result is alarming for two reasons: 1) the rate of decrease has accelerated in recent years. It is now twice the -14% annual rate of change observed between calving ground surveys in 2013 and 2010; and 2) if the observed annual rate of -29% continues, in two years, the number of breeding females would be less than half of what it is before the next calving ground survey scheduled for June 2018. The accelerated decrease in abundance of the BNE herd is similar to the rapid rate of decline observed in the Bathurst herd between 2006 and 2009, when the annual rate of decline based on breeding cow estimates exceeded -~30%. The 2015 photo survey results confirmed the steep downward trend in the Bluenose-East herd suggested by the June 2014 reconnaissance survey of this herd's calving grounds. The herd estimate derived from the calving ground survey is 38,592 ± 4,733 (CI) for 2015, which compares to 68,295 ± 18,041 in 2013 (Boulanger et al. 2014).

An overview of population monitoring of the BNE and Bathurst caribou herds was provided by ENR (2014a) in late 2014 to Aboriginal governments and co-management boards participating in meetings on management of the two herds. An update with estimates from the BNE June 2015 calving ground survey was provided by letter to Aboriginal governments and co-management boards on September 24, 2015 and a further update was provided on December 2, 2015. Complete survey reports will be provided as they become available.

Other demographic indicators for the Bluenose-East herd in recent years are consistent with a rapidly declining trend between 2010 and 2015: late-winter calf:cow ratios in recent years have averaged below 30 calves:100 cows (ratios of 30-40 calves: 100 cows or greater are associated with stable herds), estimated cow survival has been well below the 80% needed for a stable herd (Boulanger et al. 2014, ENR 2014A), and there is evidence of low pregnancy rate in at least some years, including 2010, 2012 and 2015 (ENR 2014a). Although sample sizes were small, evidence gathered by Tłı̨chǫ hunters during winter harvesting suggested that cows were in relatively poor condition between 2010 and 2014 (Garner 2014), and particularly between 2010 and 2012 (ENR 2014a).

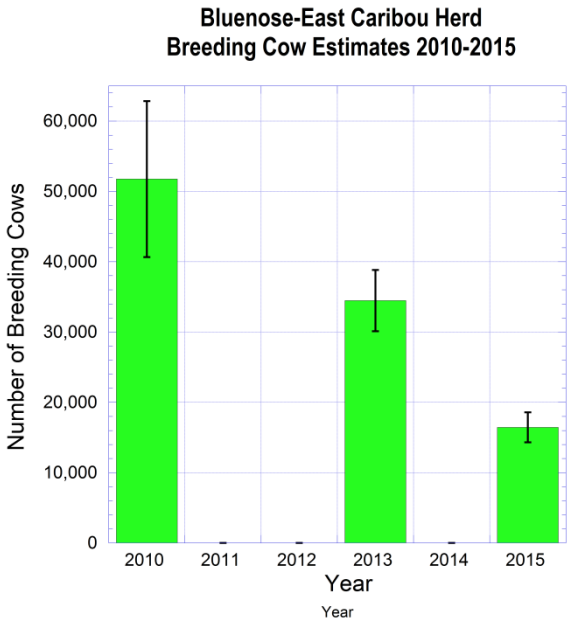

Fig. 1. Estimated numbers of breeding cows (± 95% CI) in the Bluenose-East herd 2010-2015.

ENR notes that the declining trend in the Bathurst and Bluenose-East caribou herds is consistent with generally declining trends, with very few exceptions, in migratory tundra caribou herds in North America: George River and Leaf River herds in Quebec/Labrador; Qaminirjuaq herd in Nunavut; Bathurst, Bluenose-West and Tuktoyaktuk Peninsula herds in NWT, with the Cape Bathurst herd stable-declining slightly (based on preliminary estimates from 2015 surveys); Central Arctic, Western Arctic and Teshekpuk herds in Alaska. The Porcupine herd is the lone exception in Alaska with an increasing trend.

The average estimated/reported Bluenose-East harvest in winters 2009-2010 to 2012-2013 was about 2700 caribou/year, and likely at least 65% cows (ENR 2014a; BGTWG 2014). These estimates are considered minimums; wounding losses were not included, some harvest was un-reported and the true harvest may have been at least 4000/year (ENR 2014A). The increased Bluenose-East harvest since the winter of 2009-2010 may reflect a shift in hunting effort from the Bathurst herd to the Bluenose-East herd. The Bathurst harvest before 2010 was not fully documented but estimated at 4000-7000/year, mostly cows (Adamczewski et al. 2009). After 2010 Bathurst harvest was limited to 300 caribou (80% bulls; ENR 2014a) in 2 large management zones, while the BNE harvest was unrestricted.

B. Management Context for the Bluenose-East Caribou Herd

Guidance for the management and monitoring of the Bluenose-East herd is primarily found within the Advisory Committee for the Cooperation on Wildlife Management's management plan for the Cape Bathurst, Bluenose-West and Bluenose-East herds, finalized in November 2014 (ACCWM 2014). In 2015 the ACCWM requested and received support from ENR for development of an Action Plan for the Bluenose-East herd; when completed, this will guide management actions proposed for this herd.

In October 2010, the WRRB issued a report with a series of recommendations focused primarily on the Bathurst herd; recommendations for the BNE herd included closing resident and commercial harvest and a Harvest Target of 2800 caribou (4% of an estimated 70,000)

with a target of 85% bulls and 15% cows. This harvest target was not implemented when the population surveys in 2010 demonstrated that the herd was over 100,000 and had an increasing trend (Adamczewski et al. 2014).

In fall and winter 2014-2015, ENR hosted three meetings of Aboriginal leaders (August 27, November 7 and November 28) and two 2-day technical meetings (October 9-10 and October 22-23) to review evidence for decline in the Bathurst and Bluenose-East herds and to consider management actions to address these declines. Meeting summaries were sent to participants and are available from ENR on request. In early 2015 the ACCWM recommended, and ENR accepted, a harvest limit for NWT Aboriginal hunters of 1800 BNE caribou, with at least 80% of those being bulls, for the remainder of winter 2014-2015. Although the Nunavut harvest of this herd was not well documented, it was assumed to be ~1000/year. After an unsuccessful attempt on a short time-frame to reach agreement among NWT Aboriginal user groups of this herd and co-management boards on an allocation or sharing formula, ENR determined an allocation for the herd in NWT. This was based in large part on recent documented harvest from this herd but also on several other criteria including access to other caribou. The allocation on February 6, 2015 was to include caribou already taken to that point, and the 1800 tags were to be shared as follows: Tłı̨chǫ 1100 (61.11%), Sahtú 480 (2.67%), Dehcho 45 (2.50%), Inuvialuit 25 (1.39%), NWT Métis Nation 40 (2.22%), Akaitcho 60 (3.33%), and North Slave Métis Alliance 50 (2.78%).

4. Description of Proposed Management Action

Goal of Management Actions

The short-term goal of the management actions proposed is to stop the herd's decline and promote recovery. Over the longer-term, the goal of management is to promote recovery of the herd so that sustainable harvesting that addresses community needs levels and allows the exercise of Tłı̨chǫ right to harvest throughout Mǫwhì Gogha Dè Nı̨ı̨tłèè is again possible.

Harvest management for the Bluenose-East herd

In view of the recent rapid decline in the BNE herd, TG and ENR suggest that the herd is in the orange phase (intermediate and declining) of the ACCWM management plan, where a Total Allowable Harvest (TAH) acceptable to the ACCWM could be set. The rate of decline is such that the herd could reach the red zone (i.e., 20,000 caribou or less) in 2 years, and the rapid decline must be considered along with herd size when proposing management actions. Accordingly, TG and ENR recommend that resident and commercial harvest from this herd should remain at 0 and Aboriginal harvest should be limited on a herd-wide basis to 950 caribou/year with the harvest being 100% bulls. Based on an extrapolated herd size estimate of 38,592, a harvest of 950 represents ~2.5 % of the herd. TG and ENR consider that the ACCWM's recommended harvest limit of 1800 (2800 in total for the herd, including Nunavut) from 2014-2015 is too high to continue, given the herd's rapid decline and poor demographic indicators. The 50% decline in the herd's breeding cows from 2013 to 2015 indicates that the herd's breeding cows need to be conserved if the herd is to stabilize and recover. As noted in the ACCWM plan, harvest of bulls should focus on young or small bulls so that many of the large bulls are left for breeding. Harvest recommendations would be reviewed annually or as new information becomes available.

ENR and TG support meetings of all user groups and boards to consider the proposed

allocation or sharing formula for Aboriginal harvest of BNE caribou. Until an allocation formula accepted by all user groups becomes available, the allocation in NWT is proposed as 611 caribou (Tłı̨chǫ 373, Sahtú 163, Dehcho 15, Inuvialuit 8, NWT Métis Nation [NWTMN] 14, Akaitcho 20, and North Slave Métis Alliance [NSMA] 17). This proposed allocation is based on the allocation determined by ENR for the winter 2014-2015 harvest season. Management of harvest using tags, authorizations or other methods will be developed in collaboration with Aboriginal communities.

This would leave an allocation of 339 BNE caribou for Nunavut. TG and ENR have no authority for wildlife management or caribou harvest in NU and will collaborate with responsible authorities in NU towards implementing a consistent overall approach to Aboriginal harvest of this herd in NT and NU. Collaboration between GNWT and Government of Nunavut (GN) on trans-boundary caribou herds at a technical level is ongoing; the most recent example was GN participation in 2015 BNE and Bathurst calving ground photo surveys. Updates on survey results have been provided to GN as they have become available, along with the herd-wide harvest recommendations proposed by TG and ENR. GNWT has also been in contact with GN at the Minister's level on caribou management issues. An update provided by GN in late November 2015 indicates that a hearing under the Nunavut Wildlife Management Board is likely to occur in February or March 2016; Total Allowable Harvest (TAH) for the BNE herd will be assessed at that time. GN has been working with regional wildlife boards, communities and the NWMB on these caribou harvest issues; the process in NU includes a needs assessment and community consultation. ENR will remain in frequent contact with GN on these issues and participate where possible in the NWMB process.

Wolf monitoring and management

Wolves are difficult to count on the large remote ranges used by barren-ground caribou herds in NWT and NU. ENR will conduct a technical review of wolf monitoring methods in the NWT in 2015 and 2016. In view of the further decline in the BNE, Bathurst and other NWT herds, ENR will also lead a technical feasibility assessment of a full range of wolf management options in 2015 and 2016, to consider the practicality, costs, and likely effectiveness of different management actions. The goal of the assessment is to assess the technical feasibility of wolf management options for implementation within an adaptive management framework that would support recovery of barren-ground caribou herds. This assessment will be developed collaboratively with TG and the input of other interested parties. ENR has initiated a number of discussions with biologists and managers with the Alaska Department of Fish and Game on approaches that they have used in feasibility assessments for predator management; 3 of Alaska's 4 tundra migratory herds have declined in recent years and management actions, including predator management, to address these declines is under discussion.

At this point, grizzly bear management to benefit BNE caribou is not being considered, although anecdotal observations on calving ground surveys, including surveys on the BNE calving grounds in 2013 and 2015, suggest that there may be more bears than wolves on the calving grounds. ENR will provide a summary of wolf and bear observations on recent calving ground surveys in early 2016. Bears are known to contribute significantly to caribou calf mortality in the first few weeks after calving in Alaska, but substantial caribou killing by bears is usually limited to this time period. (B. Dale, Alaska Department of Fish and Game, pers. comm. 2015). Also, Tłı̨chǫ traditional knowledge exists about the effects of bear predation on caribou outside calving grounds and the issue may be revisited by ENR or TG. Wolves are

effective predators of caribou year-round. The BNE calving grounds are within Nunavut, thus any consideration of predator management on the calving grounds would need to be led by GN and discussed under NU processes for wildlife management.

TG and ENR support the development, implementation and evaluation of specific and measurable predator management actions for caribou that are community based and/or undertaken with territorial governments and wildlife management authorities for 3 – 5 years for BNE. To start, GNWT and TG are proposing a community-based wolf hunting program for the 2015-2016 harvesting season focused on the Bathurst herd and the Bathurst mobile conservation zone. If successful, the approach could be extended in 2016-2017 to the BNE herd and incorporated into an adaptive wolf management approach as outlined above. A summary of the proposed approach is provided below.

- The basic premise is that Tłı̨chǫ communities will have meaningful input into deciding how to hunt and trap wolves in a culturally respectful manner, selecting candidates (including interested youth) who will be trained in effective field techniques for hunting/trapping wolves, skinning, and fur preparation, and identifying appropriate locations away from communities for skinning and processing wolf carcasses. Selected individuals will receive training from recognized expert wolf hunters/trappers and/or expert instructors. GNWT-ENR would develop, coordinate, and provide the training workshops with input from TG. An important factor in these workshops will be the cultural teachings from local Elders. Some believe that, from a cultural standpoint, Tłı̨chǫ people do not hunt wolves. By bringing in an Elder to explain to Tłı̨chǫ people that wolves are a problem and that Tłı̨chǫ should do something about it as long as one follows the traditional laws, more people will be motivated to go out on the land to harvest wolves.

- Individuals for community-based teams would initially `be selected from Wekweètì and Gamètì. Teams will establish field camps in focal areas during winter months and harvest wolves in a manner consistent with Tłı̨chǫ practices. ENR, with support from TG, will provide funding, training and field support, and monitor overall program effort and effectiveness. Tłı̨chǫ hunters would have the following options: 1) deliver the wolf carcass (entire unskinned wolf) to ENR and receive straight pay-out (proposed as $200); or 2) prepare the hide themselves for submission to ENR either with traditional skinning (proposed as $400 for the hide and $50 for the skull) or pelts prepared according to taxidermy standards through the Genuine Mackenzie Valley Fur (GMVF) Program (proposed as $400 for the pelt, $50 for the skull, and a prime fur bonus of $350 if the pelt sells for more than $200 at auction). Wolf carcasses will be necropsied by ENR biologists.

- The objective for the first year of the community-based wolf hunting pilot program will be for TG and ENR to train up to four teams in 2015-2016 focused on the Bathurst range. Implementation and potential expansion of the program in subsequent years to the BNE range will be tied to program objectives established through the feasibility assessment outlined above, and as experience is gained from the pilot program.

- Depending on available resources, an additional workshop could be held in one other Tłı̨chǫ community in fall 2015 or winter 2016, with remaining Tłı̨chǫ communities completing the training by winter 2016. This would result in a core group of trained and experienced wolf hunters in each of the Tłı̨chǫ communities who would be active in the

field and capable of training other interested hunters and trappers in the community.

In addition to training Tłı̨chǫ hunters as part of a community-based wolf hunting pilot program, recommendations from a number of communities and governments were made in 2014-2015 to extend wolf hunting opportunities and incentives to Northwest Territories residents and non-residents (i.e., guide-outfitters). The opportunity for resident hunters and guided outfitters to hunt wolves on the Bathurst range is already in place. GNWT-ENR will work with other Aboriginal organizations to increase wolf harvest over the winter range of the Bathurst herd in culturally appropriate ways,that are respectful of Tłı̨chǫ lands and customs. These approaches may be extended to the range of the BNE herd.

Land use in the Bluenose-East caribou range

There are currently no mines in Bluenose-East caribou range in the NWT or NU, but Tundra Copper carried out exploration activity on the BNE calving grounds in summer 2015. TG and ENR will participate in environmental assessment processes for developments that may affect the BNE herd. ENR and TG expressed opposition to the Tundra Copper activities to the Nunavut Impact Review Board, as did the Government of Nunavut (GN). ENR participated in a workshop June 2015 in Iqaluit on the draft Nunavut Land Use Plan and supported GN's position opposing development on all caribou calving grounds in NU, and participated in a workshop in November 2015 in Iqaluit hosted by the Nunavut Wildlife Management Board (NWMB) focused on protection of caribou habitat in NU. Any other industrial development proposed for the BNE herd's range will need to be considered carefully in view of the herd's reduced numbers and declining trend.

Public education and hunter education

As part of caribou harvest management for the BNE herd, GNWT-ENR and TG suggest that an area where greater effort is needed is hunter education, with an emphasis on promoting traditional practices of using all parts of harvested caribou and minimizing wastage. Below are a few extracts from the consultation meetings that took place leading up to the Draft Bathurst Caribou Management Plan of 2004.

> *"People do not do things without the caribou being aware of it. We depend on the caribou and so, when we will kill a caribou, we show respect to it. If we don't do that and we don't treat them really well, the caribou will know about it."* (Rosalie Drybones, Gameti. 1998).

- *"People should know how to think and talk respectfully about caribou."*
- *"People should respect caribou as gifts from the Creator."*
- *"All people should have knowledge of the caribou to respect caribou. This means knowing caribou behavior as well as how to think and talk about caribou."*
- *"Hunters should not be too particular when hunting caribou."*
- *"Caribou should not suffer in death."*
- *"Hunters must not boast about their harvest."*
- *"It is important to use all parts of the caribou and waste nothing."*
- *"People must care for the stored meat and discard bones and other unused parts in a manner that will not offend the caribou."*
- *"The relationship between the people and the caribou is based on mutual respect."*
- *"The rules about caribou respect are meant to be obeyed."*

Wastage is prohibited under Section 57 of the Northwest Territories Wildlife Act:

> ***57.*** *(1) Subject to the regulations, no person shall waste, destroy, abandon or allow to spoil*
>
> *(a) big game, other than bear, wolf, coyote or wolverine, or an upland game bird that is fit for human consumption; or*
>
> *(b) a raw pelt or raw hide of a fur-bearing animal or bear.*

TG and ENR suggest the following education/public awareness initiatives to improve hunter practices and reduce wounding and wastage:

- Continue to work with the communities, in particular more closely with schools, on promoting Aboriginal laws and respecting wildlife, including how to prevent wastage; and

- Invite elders to work with the youth to teach traditional hunting practices and proper meat preparation.

Posters, pamphlets, media and road signs will be used to better inform the public about respecting wildlife, traditional hunting practices, wastage, poaching and promoting bull harvest. Table 1 below summarizes the TG and ENR objectives for increased public engagement and hunter education.

ENR has promoted sound hunter harvest practices, preventing meat wastage, harvesting bulls instead of cows, and implementing related conservation education in NWT communities for a number of years. In response to community requests, ENR is currently developing a Hunter Education program. A working group developed the materials which are currently out for review with individuals, boards, agencies and organizations involved in the Wildlife Act creation.

Monitoring of the Bluenose-East herd

Table 1. Summary of approaches and objectives for increased public engagement and hunter education for caribou in Wek' èezhìi.

General Approach	Description & Objective	Lead (Support)
Public hearings	A public hearing on wildlife management actions for BNE herd in 2016	WRRB & SRRB (TG, ENR)
Community meetings	1 meeting per year in each Tłı̨chǫ community to discuss and update wildlife management issues and actions	TG (ENR)
Radio programs	When needed radio announcements, interviews and/or updates on wildlife management in Tłı̨chǫ language during winter hunting season over next 3 years	TG & ENR

Sight-in-your-rifle programs	Conduct community-based conservation education programs with an objective of 1 workshop / Tłı̨chǫ community / hunting season for next 3 years	ENR (TG)
Outreach through internet and social media	Regular updates (10 updates per season) on government websites and social media during fall and winter hunting seasons (Facebook & Tłı̨chǫ website)	TG, ENR (WRRB)
Poster campaign	Produce posters for distribution in each Tłı̨chǫ community: posters to be developed for each year over next 3 years	TG, ENR

Table 1 lists biological monitoring of the Bluenose-East herd, mostly led by ENR, proposed for 2016-2019. This monitoring is generally consistent with the monitoring listed in the ACCWM 2014 management plan (e.g. page 38).

Caribou Surveys:

Calving ground photographic surveys to estimate abundance of breeding cows and herd size will be continued at 3-year intervals – the next survey for the BNE herd is scheduled for June 2018. Recruitment surveys (conducted in March/April to estimate survival of calves) will be conducted annually, and fall composition surveys (conducted during the breeding season in October to estimate sex ratio) will be completed every 2-3 years. Although not listed in the ACCWM plan, ENR proposes to fly annual reconnaissance surveys of the calving grounds in June to monitor abundance of cows in the herd. Recent experience with monitoring the Bathurst and BNE herds has shown that the June reconnaissance surveys - although less precise than calving ground photographic surveys - are able to track trend in relative abundance of breeding cows in years between population surveys (ENR 2014a). In years when calving ground photographic surveys are conducted, ENR updates a demographic assessment of the herd using an OLS (ordinary least squares) model (see Boulanger et al. 2011). The goal of the demographic assessment is to evaluate all available population data from satellite collared cows and surveys, and estimate the vital rates of the herd (i.e., productivity and survival) that best explain its current size and trend. The demographic analysis that includes data up to the June 2015 calving ground survey will be completed in early 2016 and then updated after the 2018 calving photo survey.

Condition Assessment and Visual Monitoring:

Traditional knowledge on BNE caribou condition has been gathered in recent winters by Tłı̨chǫ community monitors from hunter-killed animals and was summarized by Garner (2014) and ENR (2014a). Limited sample numbers have somewhat constrained the reliability of the assessments of trend in condition and pregnancy rate. Reliable reporting of caribou condition with adequate sample numbers could improve understanding of the herd's nutritional status and the influence of environmental conditions that are tracked through the drought index, oestrid (warble and bot fly) index and indices of snow conditions on herd condition. Condition

sampling in winter from hunter-killed caribou will continue (led by TG) with a focus on increasing sample sizes and completeness of monitoring, when and if funding allows.

Collars:

The number of GPS collars on the BNE herd will be increased annually to 50 (30 on cows and 20 on bulls) with late-winter collar deployments, to replace collars with expired batteries and collars on caribou that died. This number of collars on the Bathurst and BNE herds has the support of the TG as of 2014, recognizing that the caribou collars are key elements in monitoring and management. In the past, there have been up to 60 collars on BNE caribou in years of post-calving surveys, as these surveys depend on having enough collars to find a large percentage of post-calving aggregations. The calving ground photo survey recently used to estimate population size for the BNE herd (2010, 2013, 2015) is less dependent on large numbers of collars, thus 50 collars should be sufficient for most applications of collar data, including population surveys. ENR (2014b) provided a brief review of uses of collars and recommended numbers of collars for various applications in a rationale for increasing the numbers of collars on the Bathurst herd. Some applications, such as monitoring cow survival rates with good precision, would require 100 collared caribou, while other applications can be addressed reliably with 50 or fewer collars.

TG and ENR agree to consider further increasing the number of collars on cows and bulls in this time of herd decline, depending on resources available. The use of collars has in the past been a contentious issue, as recognized in the ACCWM plan. However, at this particular and critical time with low and declining BNE numbers, it is important to have the best available information. Balancing social and cultural concerns and the scientific rationale for increasing sampling size to improve quality of biological information is not easy. Support for increased collar numbers from TG would come with the understanding that GNWT will commit the resources needed to improve the program, and share the data regularly with the TG. The collars may also assist in determining where and when predators should be removed as well as in monitoring whether predator management actions may be having an effect on the herd. The collared caribou should also help in developing better monitoring studies that determine if changing environmental and climactic conditions, as well as the influence of resource development, are affecting the caribou.

A programming option that has recently become available is “geo-fencing” where the number of GPS locations collected increases substantially and allows more detailed analysis of the movements of collared caribou near mines, roads or other designated sites. ENR is considering the use of these options on collars that will be placed in future on BNE caribou to assess their responses to disturbed areas like mines, camps and roads.

Harvest:

Accurate harvest reporting by all harvesters will be a priority for the BNE herd. In recent years ENR and TG have collaborated on caribou harvest monitoring via monitors in the four Tłı̨chǫ communities in combination with check-stations and patrols by wildlife officers. Harvest reporting has been viewed field workers as lower than actual with room for improving accuracy. Sahtú communities and the SRRB have indicated through letters and proposals that Sahtú harvesters want to monitor and manage caribou harvest through community-based programs. ENR is open to proposals on caribou harvest monitoring that is culturally appropriate, provided there is a) sufficient information on how a community-based plan would work operationally, b) there are clearly identified accountability mechanisms for reporting and

monitoring the harvest, and c) consequences of a failure to comply are specified. Estimates of BNE harvest in Nunavut are based on best estimates of experienced GN wildlife staff in Kugluktuk. Accurate harvest reporting needs to be a priority for all communities and harvesters that hunt the BNE herd.

Further monitoring:

Additional monitoring of BNE caribou that may be considered is outlined below, but implementation is dependent on whether resources (funds and staff time) are available.

(1) Annual composition surveys on the calving grounds to determine the proportion of breeding females as an index of pregnancy rate;
(2) Annual fall composition surveys to provide increased information about summer calf survival;
(3) Assessments of wolf abundance (or density) and condition on the BNE winter range;
(4) Annual winter assessments of caribou pregnancy rate from fecal samples collected during late-winter composition surveys; and
(5) Annual monitoring of environmental factors (drought index, insect index) that may affect caribou feeding, pregnancy rate and condition.

Wolf monitoring:

In the joint management proposal for the Bathurst herd, TG and ENR have described additional monitoring that is associated with a pilot program to increase community-based wolf hunting on the Bathurst winter range. Those approaches may be extended to the BNE range if successful and if resources are available. As an initial step, ENR would monitor the numbers of wolves taken annually in the BNE range. Recent review of the fur harvest database also showed that not all harvested wolves are accounted for within the fur harvest database. Thus as a follow-up, GNWT and TG will collaborate to improve monitoring the annual wolf harvest and other wolf mortalities by region, through coordination of data collection and analyses of existing fur harvest and wildlife export permit records

Wolves are difficult to count reliably due to their generally low numbers and clumped distribution. ENR has initiated a technical review of wolf monitoring methods in the NWT, recognizing that several caribou herds are at low numbers or declining (or both) and that there is strong interest from Aboriginal governments and communities in increasing wolf harvest. ENR has also committed to leading a technical feasibility assessment, that will be developed collaboratively with TG and the input of other parties, to consider a full range of wolf management options. The initial focus would be the Bathurst herd. The assessment may be extended to the BNE herd in 2016-2017.

Research on drivers of change in caribou abundance:

TG and ENR recognize that there are likely multiple factors that contributed to the BNE herd's recent decline, including adverse environmental conditions (e.g. a drought year in 2014 potentially leading to poor feeding conditions, poor cow condition and a low pregnancy rate in winter 2014-2015). A recent study by Chen et al. (2014) suggested that spring calf:cow ratios in the Bathurst herd were correlated with indices of summer range productivity one and a half years earlier; the mechanism proposed was that cows with poor summer feeding conditions were likely to be in poor condition during the fall breeding season, leading to low pregnancy rates. ENR has also asked biologist D. Russell to review environmental trend data collected

since 1979 by CARMA for NWT caribou herds (drought index, snow depth indices, warble/bot fly index, etc.) that may assist in explaining how key environmental trends have contributed to declines in caribou herds. This review will contribute to development of a long term environmental dataset for the BNE herd.

The two governments generally support increased research into underlying drivers of change in herd abundance by partnership with academic researchers and remote sensing specialists. There is a need to better understand predation rates and their significance to caribou, environmental factors affecting caribou condition and population trend, and on the effects of climate change on these relationships.

Table 1: Biological monitoring of Bluenose-East herd (ENR and/or TG lead)

Indicator(s)	Rationale	Desired Trend	Adaptive Management Options	How Often	Notes
1. Numbers (density) of 1+ year old caribou on calving ground from reconnaissance surveys	Provides index of number of breeding cows on calving grounds; number of 1+ year old caribou correlated with number of breeding females.	Increasing trend in numbers of 1+ year old caribou on annual calving ground.	If trend in 1+ year old caribou is increasing, continue as before; if trend stable-negative, re-consider management.	Annual (between photo-surveys)	Precision of survey is low but these surveys have reliably tracked trend from population surveys at 3-year intervals.
2. Estimate of breeding cows from calving ground photo survey	Most reliable estimate for abundance of breeding cows & can be extrapolated to herd size based on pregnancy rate and sex ratio.	Increasing trend in numbers of breeding cows by 2018.	If trend in breeding cows increasing, continue as before; if trend stable-negative, re-consider management.	Every 3 years	Last surveys 2013, 2015, next in 2018. Trend in breeding females is most important for herd trend.
3. Cow productivity; composition survey on calving ground in spring (June)	Relatively low calf:cow ratio in June 2009 – many sub-adult cows not yet breeding; establishes basis for potential calf recruitment through fall & winter.	High calf:cow ratio (80-90 calves:100 cows): proportion of breeding cows at least 80%.	Low ratio indicates poor fecundity and poor nutrition in previous summer; survey data integrates fecundity & neonatal survival.	Every 3 years	Essential component of calving ground photographic survey.
4. Fall sex ratio; composition survey (October)	Tracks bull:cow ratio; Bathurst ratio increased from 31-38 bulls/100 cows 2004-2009 to 57-58/100 in 2011-2012; prime bulls key for genetics, migration.	Bull:cow ratio above 30:100.	If bull:cow ratio below target, reduce bull harvest. Fall calf:cow ratios indicate spring & summer calf mortality relative to June ratios.	Every 3 years	Needed for June calving ground photo survey – extrapolation to herd size. Provides fall estimate for calf:cow ratio.
5. Calf:cow ratio in late winter (March-April); composition survey	Herd can only grow if enough calves are born and survive to one year, i.e., calf recruitment is greater than mortality.	At least 30-40 calves:100 cows on average.	Sustained ratios ≤ 30:100, herd likely declining; may re-assess management.	Annual	Calf productivity & survival vary widely year-to-year, affected by several variables, including weather.
6. Caribou condition assessment	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)	Sustained poor condition suggests unfavourable environmental conditions and likely further decline.	Annual	Sample numbers to date limited (2010-2013). TG working to improve program, sampling.
7. Cow survival rate estimated from OLS model and annual survival estimates from collared cows	Cow survival estimated 75-78% in 2013 (from model). Need survival of 83-86% for stable herd.	At least 83-86% by 2018	If cow survival continues <80%, herd likely to continue declining.	Every 3 years (new population estimate)	Population trend highly sensitive to cow survival rate; recovery will depend on increased cow survival.
8. Total harvest from this herd by all users groups (numbers & sex ratio)	Accurate tracking of all harvest is essential to management and to knowing whether management actions are effective.	All harvest reported accurately and within agreed-on limits.	Re-assess recommended harvest annually; if herd continues to decline as found 2013-2015, re-assess harvest limit.	Annual	Multiple factors other than harvest may contribute to decline but harvest is one of the few factors humans control.
9. Maintain up to 50 satellite/GPS collars on herd (30 on cows, 20 on bulls)	Collar information is key to reliable surveys, tracking seasonal movements and ranges, monitoring survival and herd fidelity.	Additional collars added every March/April to maintain up to 50 collars on herd.		Annual additions to keep total of 50.	Information from collared caribou is essential to monitoring and management of all N. America caribou herds.
10. Wolf Harvest on BNE range	Several Aboriginal governments and communities have expressed interest in increasing wolf harvest by hunters and trappers to increase caribou survival.	Increased harvest of wolves	If herd continues to decline, consider increased focus on wolf harvest to slow herd decline and increase likelihood of recovery.	Annual	Control of predators, depending on methods, may be controversial.

5. Consultation

Describe any consultation undertaken in preparation of the management proposal and the results of such consultation.

TG sent a letter to WRRB on August 25, 2015 proposing management actions for the BNE and Bathurst herds. This included a harvest limit of 950 caribou in total from the BNE herd (including Nunavut) and 80% bulls, and an allocation among NWT user groups based on the ENR allocation of early 2015. ENR sent a letter to WRRB on September 22, 2015 on management actions for the Bathurst and BNE herds, which included agreement with TG on the harvest limit of 950 and the allocation as proposed by TG, but with a 100% bull sex ratio. WRRB recommended to TG and ENR on September 25, 2015 that the governments come to agreement on the BNE harvest (and other actions); TG and ENR then met in Oct. 2015 and came to agreement on a BNE harvest of 950 and 100% bulls. The allocation among user groups had been previously agreed on by TG and ENR, although this could change if an allocation accepted by all users becomes available.

TG held a workshop on wolf management with Tłı̨chǫ elders and hunters on Oct. 29, 2015; elders agreed that the wolf was a problem for the caribou and that something needs to get done. The elders also said that they want Tłı̨chǫ hunters to harvest wolves as long as traditional laws are followed.

ENR and TG support a meeting of all BNE user groups and relevant boards, requested by co-management boards in fall 2015, to determine an allocation or sharing formula for harvest of this herd. This meeting is expected early in 2016.

ENR sent a letter to Aboriginal governments and co-management boards with an interest in the BNE herd, including government and Aboriginal organizations in Nunavut, on Sept 24, 2015 outlining the herd's status with preliminary results of the June 2015 survey, noting the urgency of taking action in time for the winter harvest season, and requesting parties to respond to ENR with their recommendations on management actions by October 15, 2015. A further update letter was sent on November 2, 2015 describing proposed management for the BNE herd for winter 2015-2016.

ENR received a letter from the SRRB on management of BNE caribou on November 3, 2015, and has had an on-going series of meetings with SRRB, SSI (Sahtu Secretariat Incorporated) and Sahtú communities in fall 2015. A community-based caribou management plan for Deline dated November 23, 2015 was made available to ENR at the end of November 2015. ENR will work with Sahtú organizations and communities on caribou harvest management that is culturally appropriate and consistent with overall management objectives for the herd.

WMAC(NWT) sent a letter on BNE management to ENR November 20, 2015 with general support for conservation of the herd and noting the importance of addressing the Nunavut harvest of the herd, requesting clarification about a proposed bull-only harvest from the herd, requesting support for a users' meeting on BNE harvest allocation, and noting the importance of a consistent approach to harvest management from the BNE herd.

ENR is preparing a management proposal for the BNE herd, similar in content to the current proposal, to submit to SRRB and WMAC-NWT in December 2015.

6. Communications Plan

Describe the management proposal's communications activities and how the Tłı̨chǫ communities will be informed of the proposal and its results.

TG and GNWT leadership will, together, hold an information session in each of the 4 Tłı̨chǫ communities. The initial round of these meetings, led by staff representatives, was held in early December 2015 and a further round of meetings is planned for January 2016.

There will be technical workshops in each of the four Tłı̨chǫ communities to inform on the implementation of any harvesting season restrictions.

Table 1 (listed earlier in this proposal) describes approaches and objectives for increased public engagement and hunter education for caribou in Wek'èezhìi.

7. Relevant Background Supporting Documentation

List or attached separately to the submission all background supporting documentation, including key references, inspection/incident reports and annual project summary reports.

Adamczewski, J., J. Boulanger, B. Croft, H. D. Cluff, B. Elkin, J. Nishi, A. Kelly, A. D'Hont, and C. Nicolson. 2009. Decline in the Bathurst caribou herd 2006–2009: a technical evaluation of field data and modeling. Environment and Renewable Resources, Government of Northwest Territories, Yellowknife, NWT, Canada.

Advisory Committee for the Cooperation on Wildlife Management (ACCWM). 2014. Taking Care of Caribou – The Cape Bathurst, Bluenose-West, and Bluenose-East Barren Ground Caribou Herds Management Plan (Final). C/O Wek'èezhìi Renewable Resources Board, 102A, 4504 – 49 Avenue, Yellowknife, NT, X1A 1A7.

Barren-ground Technical Working Group (BGTWG). 2014. Barren-Ground Caribou 2013/14 Harvest & Monitoring Summary. Unpublished Report. Wek' èezhìi Renewable Resource Board, Tłı̨chǫ Government, and Government of the Northwest Territories. Yellowknife, NT. Online [URL]: http://wrrb.ca/sites/default/files/2013-2014%20BGC%20Harvest%20Summary%20Report%20_%20FINAL_Oct15_2015.pdf

Boulanger, J. 2015. Estimates of breeding females from the 2015 Bluenose East calving ground survey, Draft November 4, 2015. Department of Environment and Natural Resources, Yellowknife, Northwest Territories, unpublished report.

Boulanger, J., A. Gunn, J. Adamczewski, and B. Croft. 2011. A data-driven demographic model to explore the decline of the Bathurst caribou herd. Journal of Wildlife Management 75:883-896.

Boulanger, J., B. Croft, and J. Adamczewski. 2014c. An estimate of breeding females and analyses of demographics for the Bluenose East herd of barren ground caribou: 2013 calving ground photographic survey. Department of Environment and Natural Resources, Government of Northwest Territories. File Report 143.

Chen, W., L. White, J. Z. Adamczewski, B. Croft, K. Garner, J. S. Pellissey, K. Clark, I. Olthof, R. Latifovic, G. L. Finstad. 2014 Assessing the Impacts of Summer Range on Bathurst Caribou's Productivity and Abundance since 1985. *Natural Resources*, **5**, 130-145. http://dx.doi.org/10.4236/nr.2014.54014

ENR (Government of the Northwest Territories, Environment and Natural Resources). 2014a. Overview: Monitoring of Bathurst and Bluenose-East Caribou Herds, September 2014. Environment and Renewable Resources, Government of Northwest Territories, Yellowknife, NWT, Canada.

ENR (Government of the Northwest Territories, Environment and Natural Resources). 2014b. Technical rationale to increase the number of satellite collars on the Bathurst caribou herd. Environment and Renewable Resources, Government of Northwest Territories, Yellowknife, NWT, Canada.

Garner, K. 2014. Tłı̨chǫ Caribou Health and Condition Monitoring Program. Final Report, Department of Culture and Lands Protection, Tłı̨chǫ Government, Behchokǫ̀, NT. 34 pp.

8. Time Period Requested

Identify the time period requested for the Board to review and make a determination or provide recommendations on your management proposal.

Management actions proposed here would apply from November 2016 until November 2019 with the results of the next calving ground photo survey of the BNE herd expected in 2018. TG and ENR suggest that management actions, including the harvest of 950 caribou (100% bulls) and allocation among NWT user groups, be reviewed annually or whenever key additional information is available (e.g. additional survey information or recommendations from ACCWM or boards).

9. Other Relevant Information

If required, this space is provided for inclusion of any other relevant project information that was not captured in other sections.

TG and ENR support efforts by the WRRB and other boards, through recommendations and public hearings, to address the possible multiple causes of the BNE decline and the implementation of the ACCWM management plan.

10. Contact Information

Contact the WRRB office today to discuss your management proposal, to answer your questions, to receive general guidance or to submit your completed management proposal.

Jody Pellissey
Executive Director
Wek'èezhìi Renewable Resources Board
102A, 4504 – 49 Avenue
Yellowknife, NT X1A 1A7
(867) 873-5740
(867) 873-5743
jsnortland@wrrb.ca

APPENDIX B **Memorandum of Understanding Regarding Collaborative Efforts for the Management of the Bluenose-East Caribou Herd**

MEMORANDUM OF UNDERSTANDING
REGARDING COLLABORATIVE EFFORTS FOR THE MANAGEMENT OF THE BLUENOSE EAST CARIBOU HERD

Between

THE SAHTÚ RENEWABLE RESOURCES BOARD
("SRRB")
and
THE WEK'ÈEZHÌI RENEWABLE RESOURCES BOARD
("WRRB")

(collectively "the Parties")

PREAMBLE

WHEREAS the SRRB has wildlife management responsibilities pursuant to Chapter 13 of the *Sahtú Dene and Métis Comprehensive Land Claim Agreement* and the *Wildlife Act*;

AND WHEREAS the WRRB has wildlife management responsibilities pursuant to Chapter 12 of the *Tłı̨chǫ Land Claim and Self-Government Agreement* and the *Wildlife Act;*

AND WHEREAS the Parties recognize and respect each other's jurisdiction;

AND WHEREAS the Parties recognize that the 2015 calving ground photographic survey of the Bluenose East caribou herd indicates a decline in population levels, which requires consideration of restricting harvesting for conservation purposes;

AND WHEREAS the Parties wish to establish a cooperative framework within which each Party can exercise its respective jurisdiction over wildlife management measures including a Total Allowable Harvest and allocation of that harvest for the Bluenose East caribou herd;

AND WHEREAS the Parties recognize that setting a Total Allowable Harvest for the Bluenose East caribou herd, and allocation of that harvest, requires each of the Parties to hold a public hearing in their respective settlement areas;

AND WHEREAS the Parties have agreed that a cooperative approach to public hearings will minimize duplication of effort, increase consistency of transboundary conservation measures and ensure that management of the Bluenose East caribou herd is as effective as possible;

AND WHEREAS the Parties recognize their obligations to consult with harvesters, as required under the terms of their respective Land Claim Agreements, and will proceed in a manner that satisfies those obligations;

NOW THEREFORE THE PARTIES AGREE AS FOLLOWS:

1. PURPOSE

1.1 The purpose of this Memorandum of Understanding ("MOU") is to:

(a) assist the Parties to make better wildlife decisions by cooperatively exercising their respective wildlife management duties and powers with respect to:

(i) considering any Bluenose East caribou herd harvest restrictions with the potential for transboundary impacts ;

(ii) minimizing duplication of effort in the decision-making process;

(iii) increasing certainty for transboundary conservation measures; and

(iv) contributing to better decisions on a herd basis (considering the whole herd and the range);

(b) foster coordination and communication in order to enable the Parties to effectively discharge their respective duties and responsibilities to hold public hearings regarding Bluenose East caribou management.

2. SCOPE

2.1 This MOU is intended to establish a cooperative framework between the Parties to collaborate in the preparation for and implementation of Bluenose East caribou management public hearings to be held in 2016 in Sahtú and Tłı̨chǫ communities, and to communicate that framework to the federal, territorial and Tłı̨chǫ governments and the public.

2.2 The Parties recognize the paramountcy of Land Claim Agreements and corresponding enabling federal legislation, which prevail over this MOU to the extent of any conflict or inconsistency;

3. COOPERATION AND SHARING OF INFORMATION

3.1 The Parties agree to cooperate in fulfilling their respective duties to prepare for and hold public hearings.

3.2 The Parties agree that the Board and staff of each Party shall attend the Bluenose East Caribou Management public hearings held in 2016 by the other Party.

3.3 The Parties shall provide each other with the information necessary to prepare for, and relevant to, the collaborative public hearings.

3.4 The Parties shall consider appropriate opportunities for capacity-building amongst their respective staff and boards, including, where feasible, actions such as shared

training in preparation for a public hearing, joint attendance at technical workshops, etc.

3.5 The Parties shall share technical information and resources and local and regional knowledge to support one another in the planning and coordination of the collaborative hearings.

3.6 To the extent possible, each Party shall keep the other Party informed of public consultation being conducted by that Party in preparation for the collaborative hearings.

3.7 The Parties shall seek opportunities to cooperate in enhancing the public awareness of their respective public hearing processes and requirements.

4. CONFIDENTIALITY AND USE OF INFORMATION

4.1 The Parties recognize that in the fulfillment of their respective regulatory functions the Parties are bound by principles of fairness, public accountability and transparency. As a result, it is expected that the information received by the Parties in the fulfillment of their mandates will be made available on the Parties' respective public registries, unless a specific request is received under section 4.2 of this MOU.

4.2 If a Party requests that specific information provided to the other Party should be maintained in confidence, the Parties mutually agree to maintain the confidentiality of that information, as requested or appropriate, providing however, that such requests are consistent with the respective mandates of the Parties as public Boards, the requirements of fairness and each Party's procedural rules;

4.3 The Party receiving information or other forms of assistance from the other Party pursuant to the MOU, may, at its sole discretion, determine whether to make use of such information in whole or in part.

5. EXPENDITURES

5.1 Each Party shall be responsible for the costs of their participation in preparation for and attendance at public hearings, and for any exchange of information, advice, or other forms of cooperation undertaken pursuant to this MOU.

5.2 The Parties may agree to cost-share certain components of their respective proceedings.

6. NO EFFECT ON OTHER AGREEMENTS

6.1 This MOU is not intended to preclude either Party from entering into such other agreements as that Party may consider necessary to contribute to the effective and efficient fulfillment of its respective mandate.

7. LEGAL LIABILITY

7.1 This MOU is an administrative agreement and indicates the intention of the Parties but does not create a contractual obligation between them.

7.2 This MOU does not

(a) create any new legal powers or duties for the Parties, nor does it alter, in any way, the powers, duties or responsibilities established for the Parties; or

(b) diminish or affect any of the procedural or substantive rights which may be guaranteed to beneficiaries

under any Land Claim Agreement or the laws of Canada or the Northwest Territories.

7.3 Nothing in this MOU is intended to create any right or benefit, substantive or procedural, enforceable at law by any person or organization against either Party, its agencies or officers, any agencies or officers carrying out relevant programs authorized under federal, provincial or territorial law, or any other person.

8. OTHER

8.1 Nothing in this MOU is intended to impose any additional funding obligations on either of the Parties. Nothing in this MOU is intended to diminish or otherwise affect the authority of either Party to carry out its statutory, regulatory, or other official functions or to commit either Party to providing a particular service it would not otherwise provide in the scope of its individual mission and functions.

9. PRINCIPAL CONTACTS

9.1 The Parties designate the following individuals as principal contacts. Each Party's contact may be changed at its discretion upon notice to the other Party.

For the SRRB:

Deborah Simmons, Executive Director
PO Box 134
Tulit'a, NT X0E 0K0
(t) 867.588.4040
(f) 867.588.4040
(e) director@srrb.nt.ca

For the WRRB:

Jody Pellissey, Executive Director
102A 4504 - 49th Avenue
Yellowknife, NT X1A 1A7
(t) 867.873.5740
(f) 867.873.5743
(e) jpellissey@wrrb.ca

10. PUBLIC AVAILABILITY OF MOU

10.1 The Parties shall make this MOU and any amendments to this MOU available to the public.

11.1 This MOU shall be in effect beginning the date of execution by both Parties and will remain in force until such time as it is terminated under section 12.2 of this MOU.

12. AMENDMENT OR TERMINATION

12.1 This MOU may be amended at any time with the mutual consent of the Parties. Such amendments shall be added as written addenda to this MOU.

12.2 This MOU may be terminated by either Party upon 30 days prior notice of termination, which may be waived in whole or in part in the discretion of the other Party.

IN WITNESS WHEREOF, the Parties to this Memorandum of Understanding have signed on the 27 day of October, 2015.

For the Sahtú Renewable Resources Board

Per: _____
Michael Neyelle
Chair

_____
Witness

For the We kèezhìi Renewable Resources Board

Per: _____
Grant Pryzyk
Interim Chair

_____
Witness

APPENDIX C Review of 2010 Recommendations – Government Responses and Programs

Review of 2010 WRRB Recommendations				
No.	**WRRB Recommendation**	**TG/ENR Response**	**Management Objective**	**Status**
1	TG 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.	Accepted - ENR and TG will provide a report on the overall success of the harvest target approach in June 2011.	Increase communication among the management authorities. Provide an opportunity to review the efficacy of management actions and make revisions if necessary.	Incomplete; no recommendations provided
2	All commercial harvesting of Bathurst caribou within Wek'èezhìı be set to zero for 2010-2013.	Accepted - As per changes to the Big Game Hunting Regulations made on January 1, 2010.	Reduce harvest of the Bathurst caribou herd and set priority to Aboriginal harvest.	Completed
3	All outfitted harvesting of Bathurst caribou within Wek'èezhìı be set to zero for 2010-2013.	Accepted - As per changes to the Big Game Hunting Regulations made on January 1, 2010.	Reduce harvest of the Bathurst caribou herd and set priority to Aboriginal harvest.	Completed
4	ENR and TG, 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.	Varied - This will be addressed in the development of a long term management plan for the Bathurst herd. The target date for the long-term management plan is the end of 2012.	Make criteria for reinstating Outfitted and Resident harvest public.	Incomplete; no criteria developed
5	All resident harvesting of Bathurst caribou within Wek'èezhìı be set to zero for 2010-2013.	Accepted - As per changes to the Big Game Hunting Regulations made on January 1, 2010.	Reduce harvest of the Bathurst caribou herd and set priority to Aboriginal harvest.	Completed
6	ENR and TG, 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.	Varied - This will be addressed in the development of a long term management plan for the Bathurst herd. The target date for the long-term management plan is the end of 2012.	Make criteria for reinstating Outfitted and Resident harvest public.	Incomplete; no criteria developed
7	Establishment of a harvest target of 300 Bathurst caribou per year for 2010-2013.	Accepted - This was implemented on December 8, 2010 through a regulation change that established limited harvest zones inside and outside of Wek'èezhìı to reflect the current wintering area for the Bathurst caribou herd.	Set a level of harvest that can be sustained by the Bathurst herd.	Completed
8	Allocating the annual harvest target of Bathurst caribou between Tłı̨chǫ Citizens (225) and members of an Aboriginal people with rights to hunt in Mǫwhì Gogha Dè Nı̨ıtłèè (75)	Varied - As per prior agreement with TG to share a limited harvest of Bathurst caribou equally (150 animals for Tłı̨chǫ citizens and 150 caribou outside of Wek'èezhìı)	Establish a sharing of harvest between the Tłı̨chǫ and other Aboriginal hunters that is equitable.	Completed

No.	WRRB Recommendation	TG/ENR Response	Management Objective	Status
9	The harvest of Bathurst caribou should target an 85:15 bull/cow ratio, i.e. the annual harvest of Bathurst caribou cows should be less than 45	Varied - ENR and TG both agree that the harvest should focus on bulls but would prefer to use a target ratio of 80:20 males: females as agreed in revised joint proposal (cow harvest of 60). The modeling projections suggest that small changes in the harvest sex ratio would have negligible impacts on the Bathurst herd's likely trend.	Set a harvest sex ratio that can be sustained by the Bathurst herd.	Incomplete (excludes unknowns); target exceeded in all three years
10	TG and 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.	Accepted - ENR and TG will be closely monitoring harvest levels throughout the fall and winter hunting seasons and will keep communities and the WRRB informed.	Closely monitor and report harvest such that if it exceeds the target, actions can be taken to ensure no further harvest occurs	Not required
11	TG and 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.	Varied (as per response #9) - ENR and the TG will monitor the sex ratio of the harvest and work with hunters to target male caribou, wherever possible.	Closely monitor and report harvest such that if it exceeds the target, actions can be taken to ensure no further harvest occurs	Incomplete; targets exceeded and no regulations implemented
12	ENR should, in discussion with TG 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.	Accepted - There will be ads in the local newspaper to inform the public about the new management zones within which Bathurst caribou harvest is limited. Detailed information on recent locations of radio-collared caribou will not be publicized.	Ensure that the public know where the Bathurst and Bluenose-East caribou herds reside such that requirements for harvest restrictions and reporting are known.	Incomplete; information not consistently provided on time
13	ENR should, in discussion with TG 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.	Accepted - There will be ads in local newspaper to inform the public about the new management zones where Bathurst caribou harvest is limited.	Ensure that the public know where the Bathurst and Bluenose-East caribou herds reside such that requirements for harvest restrictions and reporting are known.	Incomplete; information not consistently provided on time
14	All commercial, outfitted and resident harvesting from the Bluenose-East caribou herd within Wek'èezhìi be set to zero for 2010-2013.	Accepted - As per changes to the Big Game Hunting Regulations made on January 1, 2010.	Reduce harvest of the Bluenose-East caribou herd and set priority to Aboriginal harvest.	Completed
15	Establishment of a harvest target of 2800 Bluenose-East caribou per year for 2010-2013, with the annual harvest target and its allocation finalized in discussions between the existing wildlife co-management boards and Aboriginal governments in the Sahtú, Dehcho and Tłı̨chǫ.	Varied - Based on new 2010 estimate of the Bluenose-East herd's size, wildlife co-management boards are reviewing information and the proposed harvest target's recommended by the WRRB. ENR and TG will be working together to promote harvest of bulls, monitor the harvest closely throughout the winter and keep the communities, as well as WRRB, SRRB and Nunavut informed.	Set a level of harvest that can be sustained by the Bluenose-East herd. Establish as sharing of harvest between the Tłı̨chǫ and other Aboriginal hunters that is equitable.	Incomplete; target exceeded in 1 of 3 years

No.	WRRB Recommendation	TG/ENR Response	Management Objective	Status
16	The harvest of Bluenose-East caribou should target an 85:15 bull/cow ratio, i.e. the annual harvest of Bluenose-East caribou cows should be less than 420 – Original recommendation varied to 80:20 bull/cow harvest (cow harvest of 560)	Varied (as per response #9 and #15) - ENR and TG agree the harvest should focus on bulls but would prefer a target of 80:20 males: females as agreed to in the revised joint proposal.	Set a harvest sex ratio that can be sustained by the Bluenose-East herd.	Incomplete (excludes unknowns); target exceeded in 2 of 3 years
17	TG and 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.	Varied - Based on new 2010 estimate of the Bluenose-East herd, wildlife co-management boards and Aboriginal governments are reviewing information and the proposed target recommended by the WRRB and plan to develop a strategy which will be shared with affected wildlife co-management boards.	Closely monitor and report harvest such that if it exceeds the target, actions can be taken to ensure no further harvest occurs	Incomplete; targets exceeded and no regulations implemented
18	TG and 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.	Varied (as per response #15) - Based on new 2010 estimate of the Bluenose-East herd, wildlife co-management boards are reviewing information and proposed harvest targets recommended by WRRB.	Closely monitor and report harvest such that if it exceeds the target, actions can be taken to ensure no further harvest occurs	Incomplete; targets exceeded and no regulations implemented
19	ENR should, in discussion with TG 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.	Accepted (as per response # 12)	Ensure that the public know where the Bathurst and Bluenose-East caribou herds reside such that requirements for harvest restrictions and reporting are known.	Incomplete; information not consistently provided on time
20	ENR should, in discussion with TG 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.	Accepted (as per response #13)	Ensure that the public know where the Bathurst and Bluenose-East caribou herds reside such that requirements for harvest restrictions and reporting are known.	Incomplete; information not consistently provided on time
21	TG and ENR do not provide harvester assistance and/or incentives to access the Bluenose-East herd.	Rejected - ENR and TG agree that conservation measures for the Bluenose-East herd are required. However, ENR had previously agreed to provide support to construct a winter road to Hottah Lake so that people from Wekweètì could access the Bluenose-East herd as a measure to reduce pressure on Bathurst caribou herd, whose numbers are still very low.	Allow for alternative harvest opportunities while not placing undo pressure on adjacent herds.	Recommendation rejected - CHAP funding provide to assist harvesters for fall hunts to access Bluenose-East caribou.
22	TG consider negotiating caribou harvesting overlap agreements with Nunavut and the Sahtú region to make certain that existing relationships endure.	Varied - TG will consider.	Ensure informal traditional harvest sharing agreements among Aboriginal groups continue to be respected into the future.	Incomplete; no agreements negotiated

No.	WRRB Recommendation	TG/ENR Response	Management Objective	Status
23	All commercial, outfitted and resident harvesting from the Ahiak caribou herd within Wek'èezhìı be set to zero in order to prevent incidental harvest of Bathurst caribou for 2010-2013.	Accepted	Reduce harvest of the Ahiak caribou herd and set priority to Aboriginal harvest. Reduce incidental harvest of Bathurst caribou herd.	Completed
24	TG and ENR do not provide harvester assistance and/or incentives to access the Ahiak herd.	Rejected - ENR and TG did not provide support for fall caribou harvests in 2010. However, for ENR, it may be necessary to provide some assistance as part of accommodation for limiting harvest of the Bathurst herd. ENR is working with harvesters to carefully monitor the harvest of the Ahiak herd.	Allow for alternative harvest opportunities while not placing undo pressure on adjacent herds.	Recommendation rejected - CHAP funding provide to assist harvesters for fall hunts to access Ahiak caribou.
25	TG consider negotiating caribou harvesting overlap agreements with Nunavut and the Akaitcho region to make certain that existing relationships endure.	Varied (as per recommendation # 22 for overlap agreements with Nunavut) - TG currently has a boundary agreement with Akaitcho.	Ensure informal traditional harvest sharing agreements among Aboriginal groups continue to be respected into the future.	Incomplete; no agreement negotiated with Nunavut; overlap agreement in place with Akaitcho.
26	ENR should, in discussion with TG 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.	Accepted (as per response #12)	Ensure that the public know where the Ahiak caribou herd resides such that requirements for harvest restrictions and reporting are known.	Incomplete; information not consistently provided on time
27	ENR should, in discussion with TG 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.	Accept (as per response #13)	Ensure that the public know where the Ahiak caribou herd resides such that requirements for harvest restrictions and reporting are known.	Incomplete; information not consistently provided on time
28	TG implement the Special Project, Using Tłı̨chǫ Knowledge to Monitor Barren Ground Caribou of the overall TK Research and Monitoring Program.	Varied - TG will be implementing the project based on its obligations and commitments pursuant to the provisions in the Tłı̨chǫ Agreement. Start date of the TK Research and Monitoring Program is anticipated in summer 2011.	Harvest monitoring to be controlled at community level and done in a manner that is consistent with Tłı̨chǫ cultures of sharing information and building knowledge.	Incomplete; not implemented

No.	WRRB Recommendation	TG/ENR Response	Management Objective	Status
PREAMBLE: (#29-39) - The Tłı̨chǫ Government agrees with the recommendations 28-42 of the Recommendation Report related to the Revised Joint Proposal on Caribou Management Actions in Wek'èezhìı. We are committed to documenting and reporting on observations and trends observed by caribou harvesters and elders. Implementation of the Tłı̨chǫ Knowledge Research and Monitoring Program: Special Project, Using Tłı̨chǫ Knowledge (to Monitor Barren Ground Caribou' will take approximately eight months. The traditional monitoring system continues among the harvesters and elders. Nevertheless the logistics of realizing a system that will rigorously and accurately document and report harvesters' observations and trends has yet to be initiated. The program requires trained Tłı̨chǫ researchers, offices, and equipment, all of which requires a realistic annual budget and extensive fundraising with those who will also benefit from Tłı̨chǫ knowledge research and monitoring.				
29	TG and ENR implement the *spring calf survival* monitoring action as identified for TK and SK.	Scientific: Accepted - ENR will provide the Board with a power analysis of how frequently spring composition surveys are required. ENR has not recently used collars to assess cow mortality rate. ENR would appreciate any suggestions from the Board on alternative methods to estimate cow mortality. Because the existing numbers of radio-collars on the Bathurst herd are insufficient to reliably monitor cow mortality rates, the joint proposal emphasized annual calving reconnaissance surveys to monitor the trend in the herd's numbers of breeding cows. High mortality rates in cows would translate to a declining trend in numbers of cows on the calving ground: low cow mortality rates would translate to increasing numbers of cows on the calving ground.	Ensure scientific monitoring of the Bathurst, Bluenose-East and Ahiak herds is conducted on an annual cycle such that management authorities can assess the status of the herd with the best available information at hand. This includes: spring composition, calving reconnaissance, calving ground composition and fall composition. Calving or post-calving population surveys are to be completed in spring/summer 2012.	TK - Incomplete; Special Project not implemented SK - Completed
30	TG and ENR implement the *health and condition* monitoring action as identified for TK and SK.	Scientific: Accepted - ENR expects that some Bathurst cows will be taken by hunters; therefore, sample kits will be available to all hunters to record basic information on health, condition and pregnancy rates of cows. Details of samples to be collected will be provided to TG community caribou monitors and ENR staff. Typically, community hunts are an opportune time to take such samples. TK – See Preamble	Monitor the health and condition of Bathurst, Bluenose-East and Ahiak caribou in a way that does not increase the harvest of cows or take away from community harvest of cows.	TK - Incomplete; Special Project not implemented SK -Incomplete; no systematic approach

No.	WRRB Recommendation	TG/ENR Response	Management Objective	Status
31	TG and ENR implement the *birth rate* monitoring action as identified for TK and SK.	Scientific: Varied - Birth rate information will be collected in different ways for different herds. - For example, the size of the Ahiak and Bathurst caribou herds is estimated using the calving ground photo census surveys. Birth rate is estimated from a composition survey that is conducted on the calving ground right after the photo census. - This photo census technique is not usually used for the Bluenose-East herd (rather, herd size is estimated from a post-calving ground photo census survey). Instead, pregnancy rates are based on information collected from harvested Bluenose-East cows, and indirectly from composition surveys that assess the calf:cow ratio. TK – See Preamble	Ensure scientific monitoring of the Bathurst, Bluenose-East and Ahiak herds is conducted on an annual cycle such that management authorities can assess the status of the herd with the best available information at hand. This includes: spring composition, calving reconnaissance, calving ground composition and fall composition. Calving or post-calving population surveys are to be completed in spring/summer 2012.	TK - Incomplete; Special Project not completed SK - Completed
32	TG and ENR implement the *adult sex ratio and fall calf survival* monitoring action as identified for TK and SK.	Scientific: Accepted - The result of the fall composition survey is one of the parameters used to determine a population estimate for the Bathurst and Ahiak herds. Fall adult sex ratio surveys for these herds are planned for 2011 and 2012 prior to photographic survey scheduled for 2011 (Ahiak/Beverly) and 2012 (Bathurst). The next Bluenose-East fall adult sex ratio survey is planned for 2011 to get more basic information on the number of bulls and cows for this herd. TK – See Preamble	Ensure scientific monitoring of the Bathurst, Bluenose-East and Ahiak herds is conducted on an annual cycle such that management authorities can assess the status of the herd with the best available information at hand. This includes: spring composition, calving reconnaissance, calving ground composition and fall composition. Calving or post-calving population surveys are to be completed in spring/summer 2012.	TK - Incomplete; Special Project not implemented SK - Incomplete; survey not conducted annually
33	TG and ENR implement the *estimate of herd size* monitoring action as identified for TK and SK.	Scientific: Accepted - ENR will work with all partners to undertake the: • Bathurst calving ground photo survey in June 2012. • Ahiak calving ground photo survey in 2011. • Bluenose-East post calving ground survey in 2012 or 2013. TK – See Preamble	Ensure scientific monitoring of the Bathurst, Bluenose-East and Ahiak herds is conducted on an annual cycle such that management authorities can assess the status of the herd with the best available information at hand. This includes: spring composition, calving reconnaissance, calving ground composition and fall composition. Calving or post-calving population surveys are to be completed in spring/summer 2012.	TK - Incomplete; Special Project not implemented SK - Completed

No.	WRRB Recommendation	TG/ENR Response	Management Objective	Status
34	TG and ENR implement the *wolf abundance (den occupancy)* monitoring action as identified by TK and SK.	Scientific: Varied - ENR will continue with current wolf den surveys, which provide an index of wolf abundance. ENR in consultation with the TG will provide a proposal with potential options and costings that are relevant to wolf monitoring, research, and management. The Parties will continue to explore new options with respect to monitoring and managing wolves. TK – See Preamble	Monitor wolf abundance as well as health and condition as it relates to productivity.	TK - Incomplete; Special Project not implemented SK - Completed
35	TG and ENR implement the *wolf condition and reproduction* monitoring action as identified by TK and SK.	Scientific: Accepted - Through the Genuine Mackenzie Valley Fur Program the GNWT provides harvesters $200 for each intact wolf carcass and will provide a collection report to the WRRB and TG in June 2011 on the carcass collection. TK – See Preamble	Monitor wolf abundance as well as health and condition as it relates to productivity.	TK - Incomplete; Special Project not implemented SK - Completed, but no report
36	TG and ENR implement the *wolf harvest* monitoring action as identified by TK and SK.	Scientific: Accepted - ENR will provide a report to the WRRB and TG in June 2011 on wolf harvest data. TK – See Preamble	Monitor wolf harvest to assess if harvest incentives have led to changes in harvest.	TK - Incomplete; Special Project not implemented SK - Completed
37	TG and ENR implement the *state of habitat* monitoring action as identified by TK and SK.	Scientific: Varied - ENR will continue to provide an annual report to the WRRB and TG on fire activity. ENR expects a number of research projects investigating the impact of fires on caribou habitat to be completed in 2012 and will provide an annual progress report to the WRRB and TG. ENR will continue to explore new ways to monitor landscape change driven by industrial exploration and development with our partners (e.g., INAC). TK – See Preamble	Ensure the landscape is managed in such a way that considers the sustainability of the Bathurst, Bluenose-East and Ahiak caribou herds.	TK - Incomplete; Special Project not implemented SK - Incomplete; no report provided
38	TG and ENR implement the *pregnancy rate* monitoring action as identified by TK and SK.	Scientific: Accepted - Note: ENR will make available, sample kits to hunters so that any Bathurst or Bluenose-East cows that are harvested can be tested to determine pregnancy rates. The community hunts are opportune times to do this work. TK – See Preamble	Monitor the health and condition of Bathurst, Bluenose-East and Ahiak caribou in a way that does not increase the harvest of cows or take away from community harvest of cows.	TK - Incomplete; Special Project not implemented SK -Completed

No.	WRRB Recommendation	TG/ENR Response	Management Objective	Status
39	ENR implement the *density of cows on calving ground* monitoring action as identified.	Scientific: Varied - ENR will undertake these surveys for the Bluenose-East, Bathurst and Ahiak herd in 2011 and 2012. TK – See Preamble	Ensure scientific monitoring of the Bathurst, Bluenose-East and Ahiak herds is conducted on an annual cycle such that management authorities can assess the status of the herd with the best available information at hand. This includes: spring composition, calving reconnaissance, calving ground composition and fall composition. Calving or post-calving population surveys are to be completed in spring/summer 2012.	Completed
40	TG implement the *caribou harvest* monitoring action as identified.	Varied - ENR and TG will continue to work with harvesters to report harvests. Methods will be based on the last 2 years of harvest monitoring in the Tłı̨chǫ communities. A community based program will be developed in the 2010/11 season.	Harvest monitoring to be controlled at community level and done in a manner that is consistent with Tłı̨chǫ cultures of sharing information and building knowledge.	Incomplete; information not consistently provided
41	TG and ENR reporting on monitoring results to the WRRB and the general public a minimum of three times per year in April, September and December. April meeting changed to late-May.	Accepted -To make information available to the public, ENR will also post reports provided to the WRRB on the ENR website.	Share information in a timely manner with management authorities and the public.	Incomplete; information not consistently provided
42	TG develop and implement a TK conservation education program to support the relationship and respect Tłı̨chǫ have for caribou.	Accepted - TG has developed a Tłı̨chǫ Ekwo Working Group (TEWG) which held its orientation workshop on Dec 13-15. This group will assess and make recommendations for the TK conservation education program.	Ensure Tłı̨chǫ and other Aboriginal harvesters follow traditional practices with respect to appropriate harvest practices. Ensure that harvesters are not wasting or wounding animals that are not retrieved.	Incomplete; not implemented
43	ENR develop and implement a scientific conservation education program to foster an increased appreciation of the resource.	Accepted - ENR will undertake this work jointly with TG in Wek'èezhìı and with other Aboriginal groups outside of Wek'èezhìı. ENR will prepare facts sheets that will be posted on the ENR website. ENR has developed an interactive Caribou Educational Program that can be used in schools for youth to learn about scientific management practices.	Ensure Tłı̨chǫ and other Aboriginal harvesters follow traditional practices with respect to appropriate harvest practices. Ensure that harvesters are not wasting or wounding animals that are not retrieved.	Incomplete; not implemented
44	TG and ENR implement a process of information flow, review and assessment.	Varied - The flow chart from the WRRB recommendation on page 44 suggests that the TK and scientific programs will be developed independently of one another. TG and ENR would like to see a more integrated strategy between science and TK as discussed in the joint revised proposal.	Establish a process for sharing information in a timely manner among management authorities, to discuss the implementation of management actions and how well they are working. Increase communication among the management authorities. Provide an opportunity to review the efficacy of management actions and make revisions if necessary.	Completed; Barren-ground Caribou Technical Working Group created

No.	WRRB Recommendation	TG/ENR Response	Management Objective	Status
46	Criteria be developed by TG and ENR 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.	Accepted - As per recommendations #4 and #6, these criteria will be developed as part of a long term management plan.	Establish a process for sharing information in a timely manner among management authorities, to discuss the implementation of management actions and how well they are working. Increase communication among the management authorities. Provide an opportunity to review the efficacy of management actions and make revisions if necessary.	Incomplete; criteria not developed
47	ENR continue discussions with the Government of Nunavut for identifying opportunities for calving ground protection.	Accepted - Note: This issue is also being raised in Nunavut by the Beverly and Qamanirjuaq Caribou Management Board (BQCMB). INAC is the primary land manager in the NWT and Nunavut. Discussion will need to take place with INAC and Nunavut.	Make progress on opportunities for minimizing impacts of development on the Bathurst, Bluenose-East and Ahiak caribou herds.	Completed; ongoing
48	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.	Varied - This can be tied into the long term management plan. Discussion will be needed to take place with INAC and Nunavut.	Ensure development on calving and post-calving ranges of the Bathurst, Bluenose-East and Ahiak herds does not unduly affect the sustainability of these herds.	Incomplete; not implemented
49	TG work towards development and implementation of a land use plan for Wek'èezhìı, including the consideration of thresholds for industrial land use.	Rejected - As per chapter 22.5 of the Tłı̨chǫ Agreement, it is the responsibility of Canada or GNWT to develop and implement a land use plan for Wek'èezhìı.	Ensure the landscape is managed in such a way that considers the sustainability of the Bathurst, Bluenose-East and Ahiak caribou herds.	Recommendation rejected - GNWT responsibility; Tłı̨chǫ Land Use Plan completed
50	ENR and INAC monitor landscape changes, including fires and industrial exploration and development, to assess potential impacts to caribou habitat.	Varied (as per response #37) - ENR has carried out some cumulative effects modeling to assess effects to date of diamond mines on the Bathurst herd, and will continue to build on this modeling.	Ensure the landscape is managed in such a way that considers the sustainability of the Bathurst, Bluenose-East and Ahiak caribou herds.	Incomplete; range plan process not completed
51	TG and ENR assess the need for forest fire control in areas of important caribou habitat.	Accepted	Ensure the landscape is managed in such a way that considers the sustainability of the Bathurst, Bluenose-East and Ahiak caribou herds.	Incomplete; no assessment completed
52	Harvest of wolves should be increased through the suggested incentives, except for assisting harvesters to access wolves on wintering grounds.	Accepted	Increase harvest of wolves to reduce predation pressure on Bathurst caribou herd.	Incomplete; incentives unsuccessful
53	Focused wolf control should not be implemented. If TG and ENR believe that focused wolf control is required, a management proposal shall be provided to the WRRB for its consideration.	Accepted	Allow for assessment and review of wolf harvest incentives on an annual basis.	Incomplete; feasibility assessment not completed

No.	WRRB Recommendation	TG/ENR Response	Management Objective	Status
54	TG and ENR 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.	Varied - 10 year Wood Bison Management Plans for the Nahanni, Slave River Lowland, and Mackenzie herds are set to be completed by the winter of 2012. Development of these plans will review current interim harvest measures for Wood Bison in Wek'èezhìı. Draft plan will be provided to WRRB for approval. In December 2010, ENR completed a regulation change to extend the season to September 1st.	Allow for harvest of wood bison to offset hardship of reduced Bathurst caribou harvest. Ensure bison harvest is sustainable in the long term through a management planning process.	Incomplete; not submitted
55	TG and ENR 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.	Accepted	Develop guidance on managing caribou herds through abundance cycles by undertaking a collaborative management planning process.	Completed; ongoing
56	TG increase their capacity to ensure full participation in monitoring and management of caribou.	Accepted	Provide a forum for discussion of scientific and traditional ways of understanding caribou ecology. Allow for Tłı̨chǫ communities to be partners in management and decision-making.	Completed; Wildlife Coordinator hired
57	ENR, TG 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.	Varied - Will be incorporated as part of the implementation plan.	Ensure timely implementation of management actions and that they are understood by Tłı̨chǫ and other Aboriginal harvesters.	Completed
58	TG and ENR conduct consultations regarding the Recommendations Report prior to January 1, 2011.	Accepted	Ensure timely implementation of management actions and that they are understood by Tłı̨chǫ and other Aboriginal harvesters.	Completed
59	TG and ENR develop a detailed implementation and consultation plan incorporating the WRRB's recommendations as soon as possible.	Accepted	Ensure timely implementation of management actions and that they are understood by Tłı̨chǫ and other Aboriginal harvesters.	Completed
60	ENR develop and implement an effective and continuing enforcement and compliance program.	Accepted - The current protocol for ENR enforcement and compliance program is effective. However given the scope of the issues ENR has enhanced its program to be a partnership with other affected aboriginal organizations.	Ensure that harvest limits are respected and that wastage and wounding loss is minimized.	Incomplete; not implemented

APPENDIX D List of Registered Parties

Proponents
Tłı̨chǫ Government
Department of Environment & Natural Resources, Government of the Northwest Territories

Intervenors
North Slave Métis Alliance
Délı̨nę First Nation

Registered General Public
ʔehdzo Got'ı̨nę Gots'ę́ Nákedı/Sahtú Renewable Resources Board
Phillip Dryneck
William Weyallon
Maurice Lafferty
Gabriel Mantla
Sam Simpson
Francis Williah
Jimmy Kodzin
Charlie J. Nitsiza
Alex Black
George Mackenzie
Pierre Tlokka
Leon Lafferty
Bernadette Nasken
David Siemans
Jimmy Nitsiza
Phillip Huskey
James Lafferty
Joseph Dryneck
Betty Ann Michel
Ernestine Martin
Charlie Football

APPENDIX E Summary Table of Party Recommendations

Harvest Management			
Party	**Recommendation**	**Rationale**	**WRRB Response**
Tłı̨chǫ Government & Environment and Natural Resources	Aboriginal harvest of Bluenose-East caribou be limited on a herd-wide basis to 950/year in total and 100% bulls, subject to annual review, and as further information becomes available. Resident and commercial harvest would remain closed.	The abundance of breeding females declined by ~29% per yearsince 2013. Key population indicators such as late-winter calf: cow ratios, estimated cow survival rate, and recent pregnancy rates are consistent with a declining trend, and further decline appears likely.	Sec 8.1.1, Determination #1-2016, Part A
	Allocation in NWT is proposed as 611 caribou (Tłı̨chǫ 373, Sahtú 163, Dehcho 15, Inuvialuit 8, NWT Métis Nation 14, Akaitcho 20, and North Slave Métis Alliance 17)., leaving an allocation of 339 BNE caribou for Nunavut.	The proposed allocation is based on the allocation determined by ENR for the winter 2014-2015 harvest season. Management of harvest using tags, authorizations or other methods will be developed in collaboration with Aboriginal communities.	Sec 8.1.2, Determination #2-2016, Part A
	Reliable harvest reporting and increased public education on the status and management of caribou herds.		Sec 8.3, Recommendation #2-2016 & #3-2016, Part A
	Hunter education on sound hunting practices including limiting wounding losses and wastage, management of caribou herds.	Promoting traditional practices of using all parts of harvested caribou and minimizing wastage.	Sec 8.3, Recommendation #4-2016, Part A
Délı̨nę First Nation	Provides a Délı̨nę approach to caribou conservation, that is based on Dene culture and understandings of their relationship with caribou		
North Slave Métis Alliance	Timely introduction of temporary harvest management, using TAH, for the Bluenose-East herd	The Bluenose-East Caribou population is in a steep decline, for reasons not yet clearly known. The trend is alarmingly similar to the Bathurst situation.	Sec 8.1.1, Determination #1-2016, Part A
	More and better education and outreach to caribou harvesters, Aboriginal and non-Aboriginal.		Sec 8.3, Recommendation #4-2016, Part A

Predator Management			
Party	**Recommendation**	**Rationale**	**WRRB Response**
Tłı̨chǫ Government & Environment and Natural Resources	Community-based predator management actions for Bluenose-East ʔekwǫ̀, including potential expansion of the Community-based Wolf Harvesting Project to the Bluenose-East range.	This would result in a core group of trained and experienced wolf hunters in each of the Tłı̨chǫ communities who would be active in the field and capable of training other interested hunters and trappers in the community.	Sec 9.1, Recommendation #6-2016, Part A
	ENR will lead a review of wolf monitoring methods in the NWT and carry out a feasibility assessment of predator management options to increase caribou survival rates.	To increase caribou survival rates.	Sec 9.2, Recommendation #7-2016, Part A
Délı̨nę First Nation			
North Slave Métis Alliance	Open to considering various predator management options suggested in the proposed management plan.	Careful analysis and deliberation will be required before support for any drastic predator control measures; a difficult management response to support, due to cultural values, ecological impacts, and economic effectiveness.	Sec 9.2, Recommendation #7-2016, Part A

Biological Monitoring			
Party	**Recommendation**	**Rationale**	**WRRB Response**
Tłı̨chǫ Government & Environment and Natural Resources	Biological monitoring of the Bluenose-East herd proposed for 2016-2019, including: calving ground photographic surveys every 3 years, annual calving ground reconnaissance surveys, fall composition surveys every 2-3 years, and annual late winter composition surveys.	Carried out since 2010; to build a continuing picture of the herd's population size and trend.	Part B
	Increased monitoring of the herd (e.g. annual fall composition surveys, annual composition surveys on the calving grounds, annual assessments of pregnancy rate from fecal collections on the late-winter range, assessments of wolf numbers on the winter range, and annual assessments of environmental indicators that may affect caribou condition and feeding conditions) will be considered if resources are available.	Improve monitoring and understanding of the Bluenose-East herd's status, distribution and ecology.	Part B
	Up to 50 satellite radio-collars would be maintained on the herd (30 on cows and 20 on bulls). Additional collars may be considered if resources are available.	Improves confidence in monitoring herd trend and many other herd attributes.	Part B
	Support research that increases understanding of drivers of change in caribou abundance and increased community-based monitoring by monitors from the Tłı̨chǫ communities.	To broaden our collective understanding and provide recommendations for management of cumulative effects of disturbance.	Part B
Délı̨nę First Nation			
North Slave Métis Alliance	Supports more and better monitoring programs to improve management responses.	Wise use of resources to answer some of the key outstanding monitoring questions, such as standardized behavioural monitoring protocols and zone of influence, to help recover the herd	Part B