

## **Proposal to Wek'èezhìi Renewable Resource Board**

### **Joint Proposal on Caribou Management Actions in Wek'èezhìi**

Submitted by:

Tłıchǫ Government  
Environment and Natural Resources, GNWT

#### **Issue**

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

#### **Background**

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

##### Bathurst Herd

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

##### Bluenose East Herd

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

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

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

### Ahiak Herd.

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

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

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

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

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

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

## **PROPOSAL**

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

The goals are:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

	<b>Issue</b>	<b>Monitoring action</b>	<b>Rationale</b>
			distribution and survival.