

March 18, 2016

**Government of the Northwest Territories
Environment and Natural Resources
Final Written Submission for the 2016 Bathurst Caribou Herd Proceeding**

Please accept the following as Environment and Natural Resources (ENR) Submission of Final Written Arguments for the 2016 Bathurst Caribou Herd Proceeding.

Chapter 12 of the Tłıchǵ Agreement creates the Wek'èezhì Renewable Resources Board (WRRB) with the authority to make a final determination in relation to a proposal regarding a total allowable harvest level for Wek'èezhì and the allocation of portions of any total allowable harvest levels for Wek'èezhì to groups of persons or for specified purposes. Section 12.6.1 of the Tłıchǵ Agreement further provides that a total allowable harvest for Wek'èezhì or Monfwi Gogha De Niitlee shall be determined for conservation purposes only and only to the extent required for such purposes.

Accordingly, ENR and the Tłıchǵ Government (TG) submitted a *Joint Proposal On Caribou Management Actions For The Bathurst Herd: 2016-2019* to the WRRB on December 15, 2015. That proposal outlined proposed management actions for the Bathurst caribou herd in Wek'èezhì, including the establishment of a total allowable harvest. The Bathurst caribou management proposal was developed collaboratively and with the full support of the TG and ENR after results of the June 2015 calving ground photographic survey showed the Bathurst herd had seriously declined since 2012.

Status of the Bathurst herd

In 2014, a calving ground reconnaissance survey suggested that the Bathurst herd had declined dramatically since the calving ground survey in 2012. A calving ground photographic survey in June 2015 confirmed that the total number of breeding cows had declined from an estimated 15,935 in 2012 to an estimate of 8,075 in 2015, a decline of about 50%, between 2012 and 2015. The total population estimate fell from 35,000 in 2012 to about 20,000 animals in 2015 – a decline of approximately 40% over three years and a decrease of 96% since the peak population estimated at 470,000 in 1986.

The 2015 survey also showed that 40% of the cows in the Bathurst herd were non-breeders, which suggests the pregnancy rate in winter 2014 – 2015 was likely about 60%, well below the 80% normally seen in a healthy herd.

Other vital rates for the Bathurst herd are also poor. The cow survival rate between 2012 and 2015 is estimated to have been 78%, below the 80 – 85% associated with a stable herd. Calf recruitment in the last 3 years has averaged 27 calves:100 cows, well below the 30 – 40 calves:100 cows which is generally associated with stable herds.

March 18, 2016

Taken together, these vital rates are consistent with a rapid rate of decline. . Unless these vital rates improve substantially, the herd is likely to decline further in the next few years and recovery is uncertain given low productivity over the past few years.

Main elements of the Joint Bathurst Caribou Management Proposal

Given the results of the 2015 calving ground photographic census and the serious state of decline of the Bathurst herd, the TG and ENR collaboratively developed a joint management proposal for conservation-based management actions to try to help reverse the Bathurst herd's decline and promote an increase in the number of breeding females in the herd. These actions would be undertaken between November 2016 and November 2019 and have the full support of both governments. The next population estimate for the Bathurst herd is expected in 2018 and a new management proposal may be needed thereafter. Management actions will be evaluated annually and may need to be adapted as new information becomes available.

The proposal has three main components:

1: Hunter Harvest

Hunter harvest is one of the few factors directly affecting caribou mortality rates that can be controlled. It is unlikely that harvest is one of the main drivers of the overall caribou cycles or long-term fluctuations in caribou numbers. Those have occurred with or without substantial hunter harvest. However, harvest can become a significant contributor to decline in a herd if the harvest is large relative to herd size, if it is largely made up of breeding cows, and if the herd has an underlying declining natural trend. With the Bathurst herd's current small and rapidly declining population size, any harvest from the herd, even on a small scale, adds to caribou mortality rates and increases the likelihood of further decline.

To help the Bathurst herd recover, TG and ENR recommend closing all harvest of Bathurst caribou. This recommendation would be reviewed annually with co-management partners and revised if appropriate, based on any new information.

Initially, harvest restrictions would be achieved by continuing implementation of the *Mobile Bathurst Caribou Management Zone* (the mobile zone), within which no caribou can be harvested. The mobile zone will be centered on the location of Bathurst caribou collars and the location of the conservation zone will change as the collared caribou move. Monitoring of the mobile zone would be carried out by regular aerial fixed-wing flights and ground patrols by wildlife officers.

TG and ENR will explore other options for management and monitoring of Bathurst caribou harvest, including the possible creation of sub-zones developed in

March 18, 2016

collaboration with Aboriginal groups, where harvest could be managed depending on distribution of collared caribou.

The use of the mobile zone and potential use of smaller subzones in future, limits the restrictions on Aboriginal harvest to the minimum required to protect the Bathurst herd identified through the collars and monitoring.

Additional effort will be put into promoting respect for caribou, including hunter education on sound hunting practices including limiting wounding losses and eliminating wastage, promoting reliable harvest reporting and increased public education on the status and management of caribou herds.

2: Predator Management

Predators are the other factor directly affecting caribou mortality rates that can be managed to some extent. Previous efforts to increase the annual harvest of wolves on the winter range of the Bathurst herd to 80-100 per year have had limited success.

We have repeatedly heard about the importance of involving communities in a meaningful way to develop an approach to predator management that is respectful, ethical and effective. For this reason, TG and ENR have proposed a collaborative community-based wolf harvesting pilot project for Tłı̨chʔ communities based on recommendations from Tłı̨chʔ elders. Selected Tłı̨chʔ citizens will be trained by experts (an expert in wolf hunting and trapping, a taxidermy skinning expert and a Tłı̨chʔ elder) in field techniques for hunting/trapping wolves, skinning, and fur preparation. Mobile wolf-hunter camps will be established in early or late winter, with the objective of removing wolves from the Bathurst caribou range. If this project is successful, it could be expanded to other communities. ENR will also work with other interested Aboriginal groups to promote increased wolf harvest in the Bathurst range.

All harvesters, including resident hunters, are also able to access an enhanced fur incentive program. This program allows harvesters to bring an intact wolf, a wolf pelt prepared to traditional standards or a Genuine Mackenzie Valley Fur Program wolf pelt to the ENR offices to receive anywhere from \$200-\$800.

In addition, ENR, with the TG, will lead a collaborative review of wolf monitoring methods in the NWT and carry out a feasibility assessment of wolf management options to increase caribou survival rates. While we recognize the urgency of taking whatever action can be taken to help the recovery of the Bathurst herd, it is also important to ensure that any wolf management actions are well thought out, effective and can be monitored and measured. During the public hearings and in the media we have heard concerns about wolf control programs that have been carried out in the past or elsewhere and we want to be careful not to repeat mistakes of the

March 18, 2016

past. This requires a careful examination of the options available and appropriate community input, training and participation.

3: Monitoring

Biological monitoring of the Bathurst herd proposed for 2016-2019 would continue and enhance the current program of surveys and satellite radio-collars. Monitoring would include:

1. A new calving photo survey to estimate the numbers of breeding females and overall herd size, planned for June 2018. Consideration could be given to moving this survey a year earlier as part of adaptive management.
2. Annual reconnaissance surveys over the calving ground to provide an index of the numbers of cows on the calving ground.
3. Composition surveys carried out every 3 years during the calving surveys to provide an estimate of the proportion of cows that were breeders that year.
4. Fall composition surveys planned for every 2-3 years; these allow us to track the bull:cow ratio and also provide an index of calf survival to 4 months of age.
5. An annual composition survey in late winter to provide a calf:cow ratio and an estimate of calf recruitment through the first year.
6. An updated estimate of cow survival rate every year that a calving photo survey occurs, using collared caribou data in combination with other demographic information about the herd and using a population model.
7. Maintaining 50 GPS satellite collars on the herd, 30 on cows and 20 bulls, with annual additions to replace collars that reach the end of their batteries and collars that are on caribou that die.
8. Annually updating environmental trends like the drought index and warble fly index, with assistance of Don Russell and the CARMA network.
9. Aerial and ground patrols by wildlife officers through the winter harvest season to ensure compliance with the no-harvest requirement of the Bathurst mobile zone.
10. Annual wolf harvest by all hunters and trappers monitoring, along with information about the effort expended by hunters and trappers.

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.

March 18, 2016

ENR and TG will also support research that increases understanding of drivers of change in caribou abundance and increased community-based monitoring by monitors from the Tłıchǫ communities.

The monitoring described should allow us to track the herd's trend and key variables between now and 2018, when the next calving photo survey is planned.

Given the herd's low numbers and declining trend, TG and ENR suggest that an annual review also occur, so that updated information can be considered and management actions can be re-evaluated. The annual review would include TG, ENR, WRRB and consultation with other Aboriginal governments and organizations that have an interest in the Bathurst herd.

What we heard during the public hearing

During the Bathurst Caribou Public Hearings of February 23-24, 2016, ENR heard the following from the public, interveners and the board's questions and concerns with respect to the proposed joint management submission:

Food Security

- Caribou are a main source of food for many Aboriginal people in the Northwest Territories. Several concerns were raised about how a zero harvest on the Bathurst herd will jeopardize food security for Aboriginal residents who traditionally harvest from the Bathurst herd and who potentially can't afford, and many not want to just switch to grocery stores. The restrictions on harvest would affect the people that are most vulnerable, most dependent on country food, and least likely to be able to earn income from the wage economy. They also restrict the ability of people to engage in traditional activities and traditional lifestyle.

ENR recognizes that closing the harvest on the Bathurst herd will cause hardship to some communities. The decision to recommend a zero harvest was not taken lightly. During the public hearing, Tłıchǫ elders and other spoke with great passion about the importance of caribou, not only as a source of food but also as an important means of keeping culture and language alive. These are important values and we all need to work together to find ways that protect culture and language while allowing the Bathurst herd to recover. However, continued harvest on this herd, if it leads to complete collapse of the herd, is not a viable long-term solution to food security.

ENR has committed to help accommodate Aboriginal governments and organizations that need to shift their harvest to other herds and other species, keeping in mind that those sources of food must also be protected from excess harvest pressure.

The GNWT has also recognized the importance of food security for NWT residents. In its tabled document outlining the Priorities of the 18th Legislative Assembly, the GNWT committed to lowering the cost-of-living by improving food security by encouraging local food production, traditional harvesting, and effective co-management of caribou herds and other wildlife.

Predator management

- During the public hearing, concerns were raised about the urgent need to take action to reduce the impact of predators on the Bathurst herd. There were also questions about whether wolf management actions would make a significant impact on the caribou herds given the huge area involved, much of which is in Nunavut, the potential cost involved, and the limited success to date.
- There were concerns raised about some past wolf control programs and the problems they caused, and cautions to not repeat the mistakes of the past.
- There was also support for full and meaningful involvement of communities in considering and developing an approach to wolf management. The importance of communities being part of the solution, and the importance of working together in a respectful and ethical way were emphasized. There was no support for the government to act on its own to implement a wolf control program.

While ENR recognizes the urgency of the Bathurst caribou situation and the desire to move quickly to address predation pressure by wolves, ENR also recognizes the need to do it right, involve Aboriginal governments and organizations in the development and implementation of wolf management programs, and make sure we don't repeat the mistakes of the past.

Currently, ENR with TG, is leading a collaborative feasibility study on the possibility of wolf management for the NWT. The wolf feasibility study is scheduled to be completed by the end of 2016 calendar year. Until then, ENR fully supports smaller scale community-based projects to increase wolf harvest. The TG pilot project to train wolf hunters/trappers to harvest wolves on the Bathurst winter range will allow communities to learn as they go and develop an effective way to increase wolf harvest. This approach builds on traditional skills and supports the traditional economy. Implementation of an effective program requires the building of capacity, which in turn requires training and knowledge transfer. ENR encourages other communities to consider similar community-based wolf programs and will work with interested communities to help implement them.

Predation by grizzly bears on the Bathurst caribou calving grounds was also discussed during the public hearing. The Bathurst caribou calving grounds are in

March 18, 2016

Nunavut and any action to manage grizzly bears would require working with Nunavut communities and would require its own feasibility study. This could be considered after the wolf management feasibility is complete.

Cumulative effects and development

- During the public hearing there were a number of questions about what was being done to limit the impact of development on the Bathurst caribou herd.

The joint management proposal deals specifically with actions to be taken between 2016 and 2019 to try to help the Bathurst herd recover and to promote an increase in the number of breeding females in the herd. However, the joint management proposal is only one piece in the overall management context for Bathurst caribou. Some of the other actions already underway are specifically directed at reducing and mitigating the potential impacts and cumulative effects of development on the Bathurst range.

For example, because of the Bathurst herd's continuing decline and due to concerns over the potential effects of mines on the herd, ENR initiated a process in 2013 to develop a range plan for the herd's entire annual range. A working group, with representation from all user groups of the herd from NWT, Nunavut and Saskatchewan, in addition to non-government groups, industry and other departments from GNWT (e.g. Lands, Industry Tourism and Investment) has been formed and information on the herd's seasonal ranges and important areas has been assembled from scientific sources and Traditional Knowledge holders. Traditional Knowledge about water crossings, migration pathways and other important habitat areas is being built into the range plan process so that land use rules for these areas can be developed. A cumulative effects model is being used to try to assess how development to date has affected the herd and how future development might affect the herd, and these results will also inform the range plan. The range plan is expected to provide guidance on responsible development in the herd's range and on how to ensure the herd has healthy habitat in all seasonal ranges.

In addition to the work underway through the Bathurst Range Planning process, ENR participates in all environmental assessment processes in NWT, and environmental assessment processes in Nunavut for developments that may affect trans-boundary caribou herds like the Bathurst. ENR has also worked with the mining companies, the Mackenzie Valley Environmental Impact Review Board (MVEIRB), and the independent diamond mine monitoring agencies on wildlife monitoring and protection plans on an on-going basis to ensure that impacts to Bathurst caribou are minimized, monitored and mitigated.

ENR has also participated in recent (2015-2016) meetings in Nunavut held by the Nunavut Land Use Planning Commission and the Nunavut Wildlife Management

March 18, 2016

Board focused on caribou habitat protection. At those meetings ENR has opposed all development on all barren-ground caribou calving grounds.

Community outreach, education and involvement

- Throughout the public hearing, the importance of working together and meaningfully involving communities in caribou management issues was raised.
- ENR has heard that Aboriginal governments and organizations want to be involved in helping to solve the Bathurst caribou decline.

ENR welcomes all Aboriginal governments and organizations to work cooperatively with us towards solutions for the Bathurst herd. It is only through working together that management actions can be effective. All parties bring something to the table and by working together and sharing information in an open and respectful way, better decisions can be made to help the Bathurst caribou.

The Tłıchǵ Agreement requires an overall management process be developed for the Bathurst herd that includes all Aboriginal user groups from the herd's range, including Nunavut. Work towards establishing and implementing an overall management process is underway. A draft Terms of Reference for a Bathurst Caribou Herd Cooperative Advisory Committee has been developed and is being reviewed by Aboriginal user groups and wildlife co-management partners. In addition, a preliminary list of priorities for the committee, including the development of a Bathurst Caribou Management Plan to guide management decisions, has been developed and is being reviewed. It is hoped that this committee will be established within the 2016 calendar year and will serve an important role in future management discussions on the Bathurst herd and will be a mechanism for real and meaningful participation in management of the Bathurst herd. It is also anticipated that this committee will develop a Management Plan for the Bathurst herd that will be acceptable to all traditional user groups and will guide management decisions in the future.

Conclusion

The current status of the Bathurst herd is unprecedented and of grave concern. To help the Bathurst herd recover so that it can once again provide sustenance to traditional users, timely conservation-based management actions are needed. The TG and ENR have jointly put forward a management proposal to help the Bathurst herd recover, with actions that we believe are necessary and that restrict the exercise of Aboriginal rights to least extent possible while still addressing the conservation need and building on a collaborative approach. ENR looks forward to the WRRB's decisions and recommendations.