



January 31, 2020

Mr. Joseph Judas, Chair
Wek'èezhì Renewable Resources Board
4504 49TH AVENUE
YELLOWKNIFE NT X1A 1A7

Dear Mr. Judas:

Joint Management Proposal for Wolves on the Bathurst and Bluenose-East Caribou Winter Ranges

The Tłıchǫ Government and the Department of Environment and Natural Resources, Government of the Northwest Territories would like to submit to the Wek'èezhì Renewable Resources Board (WRRB) a management proposal for actions on wolves on the Bathurst and Bluenose-East barren-ground caribou herd winter ranges for 2020 to 2025.

We look forward to hearing from the WRRB on our proposal.

Sincerely,

Grand Chief George Mackenzie
Tłıchǫ Government

Ms. Erin Kelly, Ph.D.
A/Deputy Minister
Environment and Natural Resources

Attachment

- c. Honourable Caroline Cochrane
Premier

Mr. Shaleen Woodward, Principal Secretary
Executive and Indigenous Affairs

Mr. Martin Goldney, Secretary to Cabinet/Deputy Minister
Executive and Indigenous Affairs

Ms. Shawn McCann, Deputy Secretary
Indigenous and Intergovernmental Affairs
Executive and Indigenous Affairs

Ms. Erin Kelly, Ph.D., A/Deputy Minister
Environment and Natural Resources

Mr. Brett Elkin, Assistant Deputy Minister, Operations
Environment and Natural Resources

Mr. Rob Gau, A/Director, Wildlife
Environment and Natural Resources

Grand Chief George Mackenzie
Tłıchq Government

Chief Clifford Daniels
Community Government of Behchokò
Tłıchq Government

Chief David Wedawin
Community Government of Gamètì
Tłıchq Government

Chief Charlie Football
Community Government of Wekweètì
Tłıchq Government

Chief Alfonz Nitsiza
Community Government of Whatì
Tłıchq Government

Ms. Laura Duncan, Tłıchǵ Executive Officer
Tłıchǵ Government

Ms. Tammy Steinwand-Deschambeault, Director, Culture and Lands Protection
Tłıchǵ Government

Chief Edward Sangris and Band Council
Yellowknives Dene First Nation (Detah)

Chief Ernest Betsina and Band Council
Yellowknives Dene First Nation (N'Dilǵ)

Chief Darryl Marlowe and Band Council
Łutsël K'é Dene First Nation

Chief Louis Balsillie and Band Council
Denínu K'ųé First Nation

Ms. Ethel Liske, ADFN Negotiations Coordinator
Akaitcho Dene First Nations

Ms. Annie Boucher, Executive Director
Akaitcho Territory Government

President William (Bill) Enge
North Slave Metis Alliance

President Garry Bailey
Northwest Territory Metis Nation

Ms. Ursula Vogt, Executive Director
Northwest Territory Métis Nation

President Lloyd Cardinal
Fort Resolution Métis Council

President Allen Heron
Fort Smith Métis Council

President Trevor Beck
Hay River Métis Government Council

President William (Bill) Enge
North Slave Métis Alliance

President Clem Paul
Mountain Island Metis

Ms. Jody Pellissey, Executive Director
Wek'èezhìi Renewable Resources Board

Mr. Daniel Shewchuk, Chairperson
Nunavut Wildlife Management Board

Ms. Aluki Kotierk, President
Nunavut Tunngavik Inc.

Mr. Larry Adjun, Chair
Kugluktuk Hunters and Trappers Organization

Mr. Stanley Anablak, President
Kitikmeot Inuit Association

Mr. Steve Pinksen, Assistant Deputy Minister
Department of Environment, Government of Nunavut

Mr. Drikus Gissing, Wildlife Director
Department of Environment, Government of Nunavut

Wek'èezhì Renewable Resources Board (WRRB) Management Proposal

1. Applicant Information	
Project Title: Government of the Northwest Territories and Tłıchq Government Joint Proposal on Management Actions for Wolves (diga) on the Bathurst and Bluenose-East Barren-ground Caribou (ʔekwò) Herd Winter Ranges: 2020 – 2025	
Contacts: Michael Birlea Lands Protection and Renewable Resources Manager Department of Culture and Lands Protection Tłıchq Government Behchokq, NT. X0E 0Y0 Phone: 867-392-6381 Ext: 1355 Fax: 867-392-6406 MichaelBirlea@Tlchq.com Bruno Croft Regional Superintendent North Slave Region Department of Environment & Natural Resources (ENR) Government of the Northwest Territories (GNWT) 2 nd Floor, ENR Main Building P.O. Box 2668 3803 Bretzlaff Drive Yellowknife, NT. X1A 2P9 Phone: 867-767-9238 Ext: 53234 Fax: 867-873-6260 Bruno.Croft@gov.nt.ca	

2. Management Proposal Summary	
Start Date: February 3, 2020	Projected End Date: July 1, 2025
Length: 5 years	Project Year: 1 of 5
The Government of the Northwest Territories (GNWT) and the Tłıchq Government (TG) have prepared this joint management proposal for enhanced wolf (diga) management actions to support recovery of the Bathurst and Bluenose-East barren-ground caribou (ʔekwò) herds. This proposal outlines a range of existing, enhanced and new wolf management actions to support recovery of these herds, and builds upon Predator Management Recommendations from the Wek'èezhì Renewable Resources Board (WRRB). These recommendations are	

outlined in a letter from the WRRB to the Tłıchq Government and the GNWT on February 6, 2019, and the response from the Tłıchq Government and the GNWT to the WRRB on March 7, 2019 (attached).

There is an immediate need for additional action to increase caribou cow and calf survival rates, and additional actions to reduce wolf predation on the Bathurst and Bluenose-East barren-ground caribou herds are required to do this. The goal of this proposal is to support recovery of the two herds through a reduction in the number of wolves on the herds' winter ranges in order to reduce predation rates and increase cow and calf survival.

The proposed additional actions to reduce the number of wolves on winter ranges of the Bathurst and Bluenose-East herds, combined with ongoing caribou harvest restrictions, is predicted to improve caribou survival and promote population growth for both herds. Harvest restriction and wolf reduction are the two management actions most likely to influence direct mortality of Bathurst caribou, which has declined to a critical status, and the Bluenose-East herd, which has been determined to meet the 'red' herd status as defined by the January 2019 Bluenose-East Action Plan (2019).

This proposal recommends that multiple approaches to reduce wolf predation on Bathurst and Bluenose-East caribou be undertaken together with annual monitoring for a minimum of 5 years (Appendix A). If annual wolf removals are maintained at a meaningful level (Wolf Feasibility Assessment Technical Working Group (WFATWG), 2017), there is a reasonable likelihood of detecting a measurable effect on improving caribou survival rates within a 5-year time frame. Initial wolf removal targets are 60-80% of wolves on the Bathurst and Bluenose-East herds. At the end of the 5-year implementation phase, the Tłıchq Government and the GNWT will conduct a comprehensive analysis of data collected, and a collaborative program review with the WRRB to:

- Assess effectiveness of wolf reduction actions;
- Determine whether wolf reductions should continue; and
- Implement improvements to the overall program, as required.

This proposal includes 3 main approaches to wolf management:

1. Wolf Harvester Training
 - Continuation and enhancement of Tłıchq Government program
 - GNWT Workshops on wolf harvesting and pelt preparation
2. Proposed Wolf Reduction Actions:
 - Continuation of Enhanced North Slave Wolf Harvest Incentive Program
 - Participation of Nunavut wolf harvesters
 - Aerial shooting of wolves on Bathurst/Bluenose-East winter range
3. Research, Monitoring and Assessment:
 - Collecting information from North Slave and Nunavut wolf harvesters
 - Wolf collaring
 - Biological research and monitoring
 - Estimating wolf removal levels on caribou winter range
 - Monitoring catch per unit effort
 - Monitoring changes in caribou herd demographic rates

This proposal recommends new and enhanced management initiatives for wolf reduction, monitoring and assessment. These initiatives will align with current and ongoing management and monitoring actions for the Bathurst and Bluenose-East herds.

Please list all permits required to conduct proposal:

- a) NWT Wildlife Research Permit will be required to conduct the monitoring and management actions recommended in this proposal.
- b) NWT Wildlife Care Committee approval.

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

The Bathurst and Bluenose-East caribou herds have both declined significantly in recent years and the situation for both herds is dire. The decline of the Bathurst herd was first documented in 1996 when the population was estimated at 349,000 animals, down from 472,000 in 1986. Management actions to date have included harvest restrictions and implementing wolf incentives starting in 2010; these actions have failed to halt the decline, and the herd was estimated at 8,200 animals in 2018. The decline of the BNE herd was first documented in 2013 when it was estimated at 68,000 animals, down from 121,000 in 2010. In 2018, the herd's population was estimated at 19,300 animals.

Both traditional and scientific knowledge have shown that barren-ground caribou experience population cycles that can be between 30-60 years long. These cycles can be hard to predict and at times do not follow the same pattern. What drives these cycles in barren-ground caribou is not fully understood but is likely linked to many factors including harvest, habitat, predators, climate and disease.

The current population estimates for the Bathurst and Bluenose-East herds are the lowest estimates on record. To promote recovery of these two herds, it is our goal to increase survival rates of caribou and overall population growth through harvest management and wolf removal. The total allowable harvest (TAH) of the Bathurst herd was set to zero in 2015, and recently the WRRB determined that the TAH of zero be maintained for all users of the Bathurst herd within Wek'èezhìi for the 2019/20 and 2020/21 harvest seasons (WRRB 2019a). The harvest of the BNE herd has been greatly reduced, with a TAH of 193 bulls-only for the 2019/20 and 2020/2021 harvest seasons.

This proposal will focus on reducing the negative effects of wolf predation on the survival rates of the Bathurst and Bluenose-East herds. The overall goal of the proposed actions is to improve conditions for several years so that the herds stabilize and begin to recover.

Previous joint management proposals for the Bathurst herd submitted by the Tłıchq Government and the GNWT resulted in the WRRB holding public hearings in 2010 and again in 2016. Public hearings were also held to address management proposals for the Bluenose-East herd in 2016 and 2019. During the 2016 and 2019 public hearings, and through consultation conducted from January 21-23, 2019, the WRRB, GNWT and Tłıchq Government heard from community members that wolves are continuing to put pressure on barren-ground caribou populations, and they would like to see action taken now.

During public hearings for the Bluenose-East caribou herd in April 2019, the WRRB concluded that a serious conservation concern exists. The WRRB indicated that actions beyond harvest

management are required to support herd recovery, and the 20% rate of annual decline for the Bathurst and Bluenose-East herds is so serious that waiting any longer to act will make recovery of the herds even more difficult.

This proposal is based on the following assumptions and caveats:

- Wolves are the primary predator of barren-ground caribou, and on average can take 23-29 caribou per year;
- People are also important harvesters of barren-ground caribou (ᑭᑭᑭᑭ), which are a cultural keystone species that are the basis for Tłıchǫ culture, language, and way-of-life;
- There is uncertainty in our knowledge of the caribou-wolf-human system because of the complex dynamics and interactions of barren-ground caribou, wolves, people, land and environmental conditions;
- Wolf reductions on the Bathurst and Bluenose-East winter ranges should be carried out humanely and through a combination of coordinated management actions to help increase caribou survival and support herd recovery;
- Removal of wolves is a recognized wildlife management action that will not pose a conservation risk to wolf populations given their high resilience resulting from their high reproductive rates and potential for immigration; and
- Adaptive co-management provides the overall context for these actions because it acknowledges uncertainty in wolf reduction techniques and knowledge of the social-ecological system, and emphasizes the importance of monitoring to enhance learning and shared authority to make and implement decisions.

A collaborative assessment of wolf management options for the Bathurst caribou range was conducted by a working group which included the WRRB, GNWT, Tłıchǫ Government, Łutselk'e Dene First Nation, Yellowknives Dene First Nation and the North Slave Métis Alliance, and a final report entitled "Wolf Technical Feasibility Assessment: Options for Managing Wolves on the Range of the Bathurst Barren-ground Caribou Herd" was released in 2017 (WFATWG 2017). The assessment considered 11 options, including both lethal and non-lethal methods, their potential effectiveness, cost and humaneness. This feasibility assessment provides a basis for developing wolf management strategies for the Bathurst and Bluenose-East herds.

Based on the feasibility assessment, it was determined that a successful wolf management program must meet the following conditions:

- Define initial target wolf removal levels;
- Allocate effort for wolf removal; and
- Assess the effects of wolf removal levels on wolves.

As is the case in many jurisdictions, the GNWT does not have reliable estimates of wolf abundance across the NWT, or for populations of wolves associated with specific barren-ground caribou herds. Monitoring of wolf abundance and denning activity on the Bathurst winter range indicated a significant decline in rates of wolf pup survival and den occupancy between 1996 and 2010 (Dean Cluff pers. comm. 2019; Klaczek 2015). These lower rates are believed to be directly linked to the decline in Bathurst caribou numbers.

Wolves on the range of the Bathurst and Bluenose-East herds are migratory and their diet relies heavily on barren-ground caribou. This is unlike wolves in many other areas which are territorial and rely on multiple prey species. It has been shown that wolves associated with

barren-ground caribou herds can, on average, take 23 to 29 caribou per year (WFATWG 2017).

Although the abundance of wolves and caribou have both declined significantly since 2000, it is believed that the relative abundance of wolves today may still be having a significant impact on the Bathurst and BNE herds, and inhibiting caribou recovery. Efforts to conduct a dedicated winter wolf abundance survey have been complicated by the fact that all 3 caribou herds (Bathurst, Bluenose-East and Beverly) tend to converge across a large, shared winter range. In 2019, these three herds occupied the North Slave Region, leading the GNWT to expand the wolf harvest incentive area (Figure 1).

Experience with wolf management in other jurisdictions has shown that an effective program must remove 60-80% of the wolves in a population because they can sustain annual removals of 30-40% (WFATWG 2017). This is a result of wolves' high reproductive potential (large litters and a potential for more than one litter per pack), their ability to disperse huge distances, and high rates of predation on targeted prey species. These characteristics also allow wolf populations to quickly rebound once management actions are no longer applied.

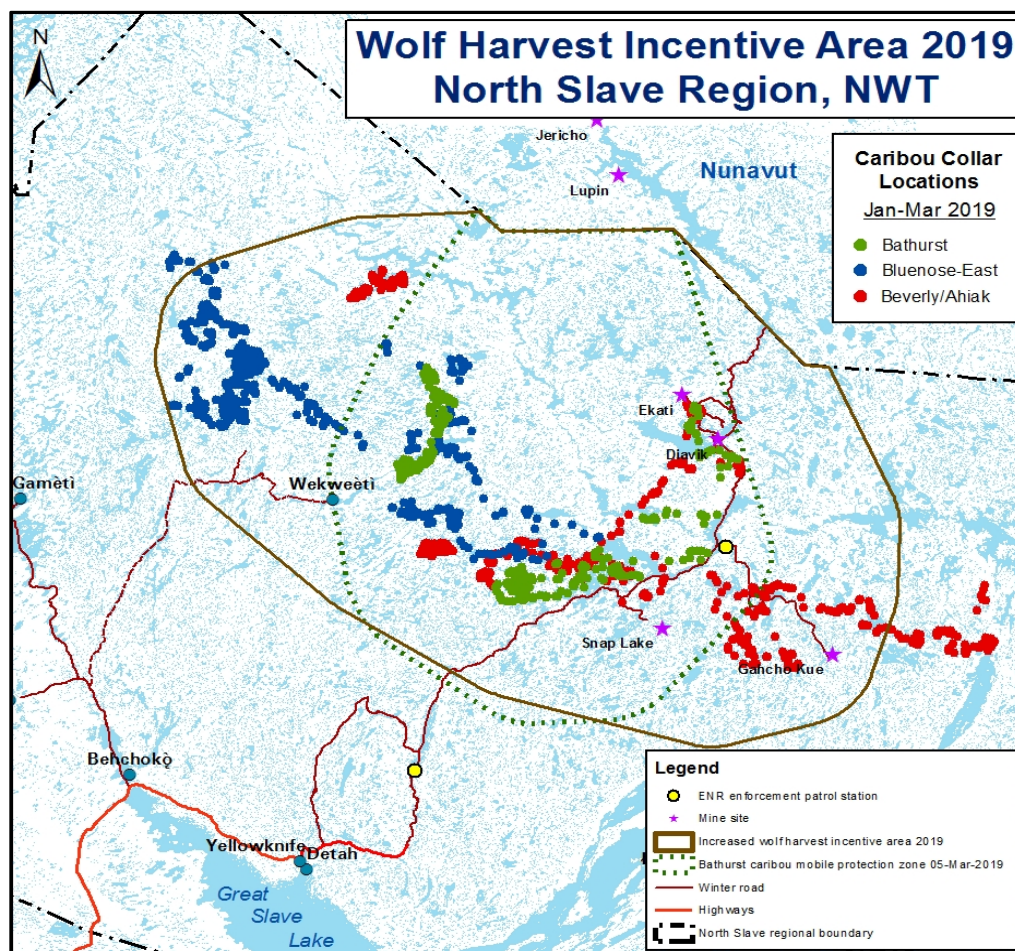


Figure 1: Caribou collar winter distribution (Bathurst, Bluenose-East and Beverly) in January – March 2019 relative to the Enhanced North Slave wolf harvest incentive area and the Mobile Core Bathurst Caribou Conservation Management Zone

In the winter of 2018/2019, wolf harvesting within the Enhanced North Slave Wolf Harvest Incentive Area was primarily focused in two key areas. NWT wolf harvesters took 60 wolves within this area, primarily along the winter road to the diamond mines. A total of 1,057 wolf tags were purchased by harvesters during the 2018/2019 wolf harvest season, up from 372 in 2017/2018. In Nunavut, an estimated 55 wolves were harvested around Contwoyto Lake in winter 2018/2019, just to the north of the GNWT's Wolf Harvest Incentive Area.

Caribou herd mixing is an obstacle to estimating wolf abundance, and poses a significant challenge when attempting to target harvest pressure on wolves associated with the Bathurst and Bluenose-East caribou herds. Given the large size of the Beverly herd (117,000 caribou); wolves associated with that herd will likely also travel into the North Slave Region, significantly increasing wolf numbers in the area. In years that the Bathurst, Bluenose-East and Beverly herd overlap on the winter range within the North Slave Region, aerial removals will not be done given the inability to remove the 60-80% of wolves required to make a difference in caribou survival and recovery.

Using caribou collar distribution patterns for the past 8 years, the GNWT has conducted geospatial analyses to better understand how the Bathurst, Bluenose-East and Beverly herds have used the landscape and how their range use changes from year to year. Overwintering caribou ranges can be discrete in some years, and have significant overlap in other years. The GNWT will use both these geospatial analyses and the most recent caribou collaring data to define a rationale for allocating wolf removal effort and assigning herd identity to target wolves. These management actions will be re-assessed and adapted annually.

4. Description of Proposed Management Action

GOAL OF MANAGEMENT ACTIONS

The goal of the proposed management actions is to remove 60-80% of the wolves on the winter ranges of the Bathurst and Bluenose-East herds. The resulting reduced wolf predation on the Bathurst and BNE herds should support an increase in caribou cow and calf survival rates. The long-term goal is to help stabilize and promote recovery of both herds.

The following section outlines the proposed management actions of this joint proposal with a summary describing the rationale for each.

1: Wolf Harvest Training

Action 1.1: Tłıchq Government Wolf Harvester Training

In January 2016, a pilot project proposal by the Tłıchq Government and the GNWT described the approach that was initiated to train Tłıchq wolf harvesters from Behchokò, Whati, Wekweètì and Gamètì in harvesting wolves using culturally-appropriate methods. Subsequently, multiple meetings with elders and hunters have been undertaken to explore options and practical approaches for training Tłıchq wolf harvesters and increasing the number of diga taken annually. Although these meetings have not yet resulted in a meaningful increase in the number of diga killed by Tłıchq hunters on Ɂekwò winter range, the ongoing dialogue has resulted in a shared understanding between TG staff and community members of a) the cultural and social perspectives that influence who may hunt diga, b) how best to share and improve knowledge of diga hunting tactics through training and mentorship, and c) practical ways of supporting Tłıchq hunters to increase their effort and harvest of diga. Key challenges for

implementing this pilot project have been the difficulty in simultaneously stimulating interest and acceptance for dīga hunting, and increasing knowledge and active participation of Tłıchq hunters to increase their winter harvest of dīga – an animal that evokes strong cultural and spiritual beliefs for Tłıchq people.

Based on discussions with Tłıchq elders, hunters, and GNWT staff, TG has initiated a combination of consultation/planning meetings, training workshops, and planned dīga winter hunts, which it plans to undertake, and adapt on an annual basis. The following summary of actions that were undertaken and planned this winter (2019/2020) provide the basis for how TG envisions implementing annual wolf harvester training over the next five years:

- In collaboration with GNWT and WRRB staff, a planning meeting(s) will be held by TG staff with elders and hunters before the winter dīga hunting season to identify program participants, discuss training needs and workshop options, plans for dīga hunting camps (i.e., participants, logistics and locations), and coordination with GNWT staff. A recent meeting held by TG staff (17 Dec 2019) provides a basis for organizing planning meetings in future years, which may be held in fall to facilitate purchase and preparation of materials such as traps, snares, and scent lures well before the winter season.
- A multi-day dīga trapper training and knowledge sharing workshop will be organized and hosted annually by TG prior to the winter dīga harvest season. On 13-17 January 2020, TG staff conducted a dīga hunter training workshop in Wekweètì with 18 participants and an instructor from the Alberta Trappers Association (ATA). In future years instructors and other recognized wolf hunting experts from NWT, Alberta, Nunavut, and other jurisdictions may be asked to participate and share knowledge with Tłıchq hunters as part of the annual workshop. Participation of GNWT and WRRB staff will be encouraged in future workshops.
- TG will support, organize, and coordinate winter dīga hunts for Tłıchq hunters who have participated in at least one of the dīga workshops. In 2019, TG purchased 8 snowmachines and related winter camping equipment (canvas tents, and wood stoves) to support winter dīga hunt camps. The snowmachines and equipment will be maintained for the duration of the 5-year program. For the upcoming 2019/2020 winter dīga harvest season, TG is planning to conduct four 10-day winter hunts through seasonal hires of up to nine people per hunt (i.e., 7 hunters and 2 camp manager-cooks). Each team will have a designated hunt lead, who will coordinate daily activities and serve as a main contact for the team. TG staff and the respective hunt leads will coordinate with GNWT to locate the hunt camp(s) in accessible areas of either the BNE or BATH winter range areas, depending on Tłıchq knowledge, locations of collared caribou and observations of wolves from aerial surveys. Wolf kills and harvest effort by the Tłıchq dīga hunt teams will be monitored (see Actions 3.4 and 3.5). The hunt teams will implement appropriate handling, skinning and processing of dīga carcasses consistent with elders' recommendations. Wolf carcasses and pelts will be eligible for the wolf harvest incentive program (see Action 2.1), and contribute to biological monitoring as per Section 3.
- Upon completion of the winter dīga harvest season, TG staff will organize a de-briefing meeting with Tłıchq dīga hunt team leads, available participating hunters, and GNWT and WRRB staff to review how well the hunts went and identify areas of improvement that should be implemented in the next winter season.

Action 1.2: GNWT Wolf Harvester Training

The GNWT has previously provided trapper training workshops to support the traditional economy. In order to provide harvesters and trappers in the North Slave Region with training opportunities to increase harvest success and enhance skinning skills, the GNWT will continue to host wolf training workshops each fall. Based on interest expressed by Tłıchq communities, a workshop was held in Wekweètì this fall, followed by a workshop in Yellowknife.

To support the goals of the Enhanced North Slave Wolf Harvest Incentive Program, the focus of these training workshops is to:

- Draw on the experience, expertise and techniques used by successful wolf harvesters;
- Offer training on the use of snares;
- Improve skinning techniques to maximize pelt value for harvesters;
- Teach best practices for humane harvesting and trapping of wolves;
- Review questionnaires on how to collect “catch per unit effort” information; and
- Review the wolf carcass sampling program and the biological data being collected, and explain how it is used.

Workshop trainers include representatives from the Fur Harvesters Auction, experienced northern wolf harvesters, experienced southern wolf trapper(s) and GNWT staff to discuss the Enhanced North Slave Wolf Harvest Incentive Program. The GNWT may also invite experienced Inuit harvesters to share their wolf harvesting techniques and experiences on the central barrens.

As addressed in the “Wolf Technical Feasibility Assessment: Options for Managing Wolves on the Range of the Bathurst Barren-ground Caribou Herd,” the GNWT will promote best practices to ensure the humane harvesting and trapping of wolves.

2: Proposed Wolf Reduction Actions

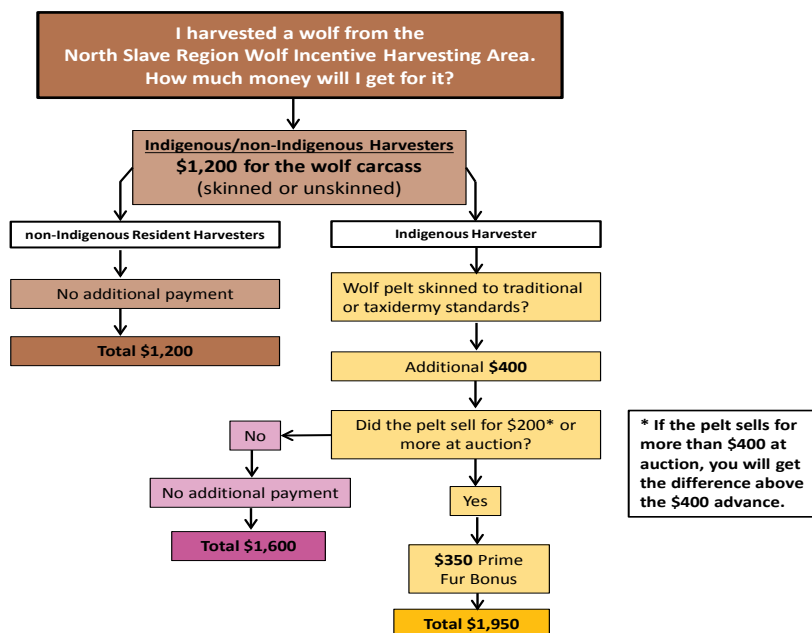
Action 2.1: Continuation of Enhanced North Slave Wolf Harvest Incentive Program

In 2010, the GNWT implemented a wolf harvest incentive program for wolf harvesters across the Northwest Territories (NWT). In 2017-2018, no wolves were harvested on the caribou wintering range in the North Slave Region. There were 40 wolves harvested elsewhere in the North Slave Region, but these were taken primarily around communities and not on the winter range of the Bathurst and Bluenose-East herds. Incentive levels were further increased on the Bathurst and Bluenose-East winter ranges in February 2019 to try to encourage additional wolf harvesting. A total of 60 wolves harvested within the Enhanced North Slave Wolf Harvest Incentive Area in 2018-19, primarily on caribou winter range. As part of monitoring under this program, the stomach contents wolves harvested within the incentive area were analyzed, and 37 of 38 wolves with food in their stomach had been feeding on barren-ground caribou (95%).

The Enhanced North Slave Wolf Harvest Incentive Program also resulted in an increase in the number of wolf tags sold in the North Slave Region. A total of 1,057 tags were issued in 2018-19, up significantly from 372 tags in 2017-2018. In order to further encourage wolf harvesting by licensed hunters for the 2019-2020 hunting season, wolf tag fees will no longer be required (effective July 1, 2019).

The GNWT is proposing to continue and provide additional support to the Enhanced North Slave Wolf Harvest Incentive Program for the next five years. A summary of the new price

structure for wolf harvesting in 2019/2020 can be found below in Figure 2.



Note: as of July 1, 2019, fees for wolf tags have been waived for all licensed hunters.

Figure 2: New GNWT incentives, effective January 2020, for wolf harvesters in the North Slave Wolf Harvest Incentive Area on the winter range of Bathurst and Bluenose-East caribou

Action 2.2: Participation of Nunavut Wolf Harvesters

Beneficiaries of the Nunavut Final Agreement have overlapping harvesting rights in parts of the NWT (Figure 3). The GNWT has met with the Government of Nunavut (GN) and discussed opportunities to support harvesters from Nunavut exercising their rights in the NWT by harvesting wolves on the winter ranges of the Bathurst and Bluenose-East caribou herds. The GNWT and GN have agreed to support participation of Nunavut wolf harvesters in the GNWT's Enhanced North Slave Wolf Harvest Incentive Program when exercising their right to harvest wolves in this area. Nunavut harvesters will be eligible for a payment from the GNWT of \$900 per wolf, with an additional \$300 payment from the GN. It is anticipated that participation from Nunavut wolf harvesters could result in the harvest of a significant number of wolves in this area, which could support recovery of the Bathurst and Bluenose-East herds.

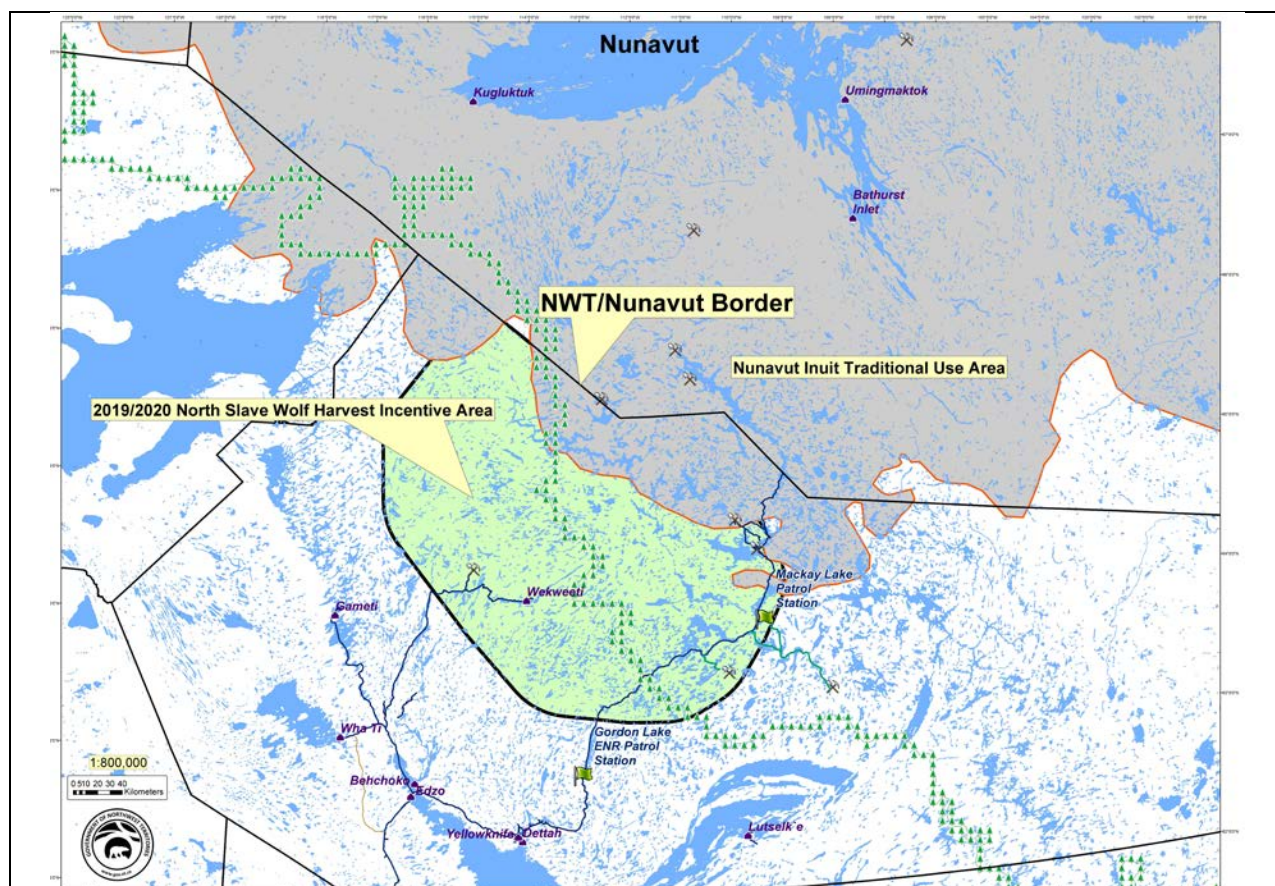


Figure 3: Nunavut Inuit Traditional Use Area within the North Slave Region

Action 2.3: Aerial Shooting of Wolves on Bathurst/Bluenose-East Winter Range

The GNWT has heard from multiple parties, including the Wek'èezhìi Renewable Resources Board and Indigenous governments and organizations, that wolf management actions need to be taken. While ground-based wolf harvesting can contribute to overall efforts to reduce caribou predation rates, experience elsewhere with wolf management has demonstrated that this approach on its own will not likely be sufficient to achieve the overall goal to support and increase caribou survival rates and herd recovery. The Enhanced North Slave Wolf Harvest Incentive Program has resulted in an increase in the number of wolves harvested on caribou winter range in 2019, but more may need to be done to support recovery of the Bathurst and Bluenose-East herds.

Given the resilience of wolf populations and the dire situation facing the Bathurst and Bluenose-East caribou herds, intensive wolf management through aerial shooting of wolves is being proposed to help support caribou herd recovery if ground-based efforts by hunters are not able to meet the removal targets. Based on the experience of wolf management programs in other jurisdictions (Russell 2010; McLaren 2016), and given the vast area of the central barrens, it is unlikely that ground-based harvesting on the winter range, even by harvesters from both the North Slave Region and Nunavut, can reduce wolf numbers to the level needed to increase survival rates in caribou.

Wolf harvest levels in the North Slave Region in recent years (ranging from 40 - 65) have been

well below the levels needed to support caribou recovery, based on the scientific literature and conclusions of the November 2017 report released by the Wolf Feasibility Assessment Technical Working Group. In 2018/2019, harvesters primarily targeted wolves along the winter road (Figure 4). Wolves were not taken from most other areas of the Bathurst and Bluenose-East winter range.

Other jurisdictions such as Alaska, British Columbia, Alberta and Yukon have demonstrated the effectiveness of aerial shooting of wolves (WFATWG 2017; McLaren 2016; Russell 2010), although none of these programs were done on migratory barren-ground caribou and wolves. Recent efforts to remove a targeted number of wolves in northern BC have successfully resulted in reductions to boreal caribou mortality, increased calf recruitment and increased herd size. To reduce wolf numbers on the winter ranges of the Bathurst and Bluenose-East herds and increase caribou survival rates and support herd recovery, aerial shooting is an effective management option available if targets are not met by harvesters.

The GNWT proposes to include aerial shooting of wolves as part of an overall tiered approach designed to meet target wolf removal levels informed by the wolf feasibility assessment report. Wolf removal targets will depend on the degree of overlap between the Bathurst, Bluenose-East and Beverly caribou herds on winter range in the NWT:

- Bathurst herd only with no overlap with other herds: 100 wolves
- Overlap of Bathurst and Bluenose-East herds: 300 wolves
- Overlap of Bathurst, Bluenose-East and Beverly herds: no aerial removals given it would not be feasible to achieve the 60-80% removal rate need to support caribou recovery given the very large number of wolves.

Every effort will be made to reach wolf removal targets using ground-based harvesting, including both the Enhanced North Slave Wolf Harvest Incentive Program and the Tłıchǫ Government Wolf Harvester Training Program. If targets are not met by the middle of March in each wolf harvest season, aerial removal will be implemented during the remainder of the season (March 15th to April 30th) to reach the removal targets. To maximize the likelihood of supporting herd recovery an adaptive management approach to achieving targets will be used. The defined initial targets may be adjusted within and between seasons using scientific, local and traditional knowledge; and actions to implement and achieve the targets will be assessed relative to the degree of overlap in winter range use with neighboring herds.

Aerial wolf removal will be done using the following means:

- Conduct aerial removal of wolves after March 15th if targets are not met by harvesters.
- Aerial removal would be done at least 100 km from the winter road or other areas where harvesters may be active.
- Use wolf collar locations and aerial survey results to identify areas where wolves are present.
- Remove all un-collared wolves encountered.
- Continue removal efforts each winter for at least five years.

Aerial removal of wolves will be done in a way to minimize interference with ground-based harvesting activities, which occur primarily along the winter road system. Aerial removal will only be done after March 15 if removal targets are not met, and will be done at least 100 kms from the winter road or other areas where ground-based harvesters are active. Wolf carcasses will be recovered and transported for subsequent skinning, necropsy and fur preparation, where possible.

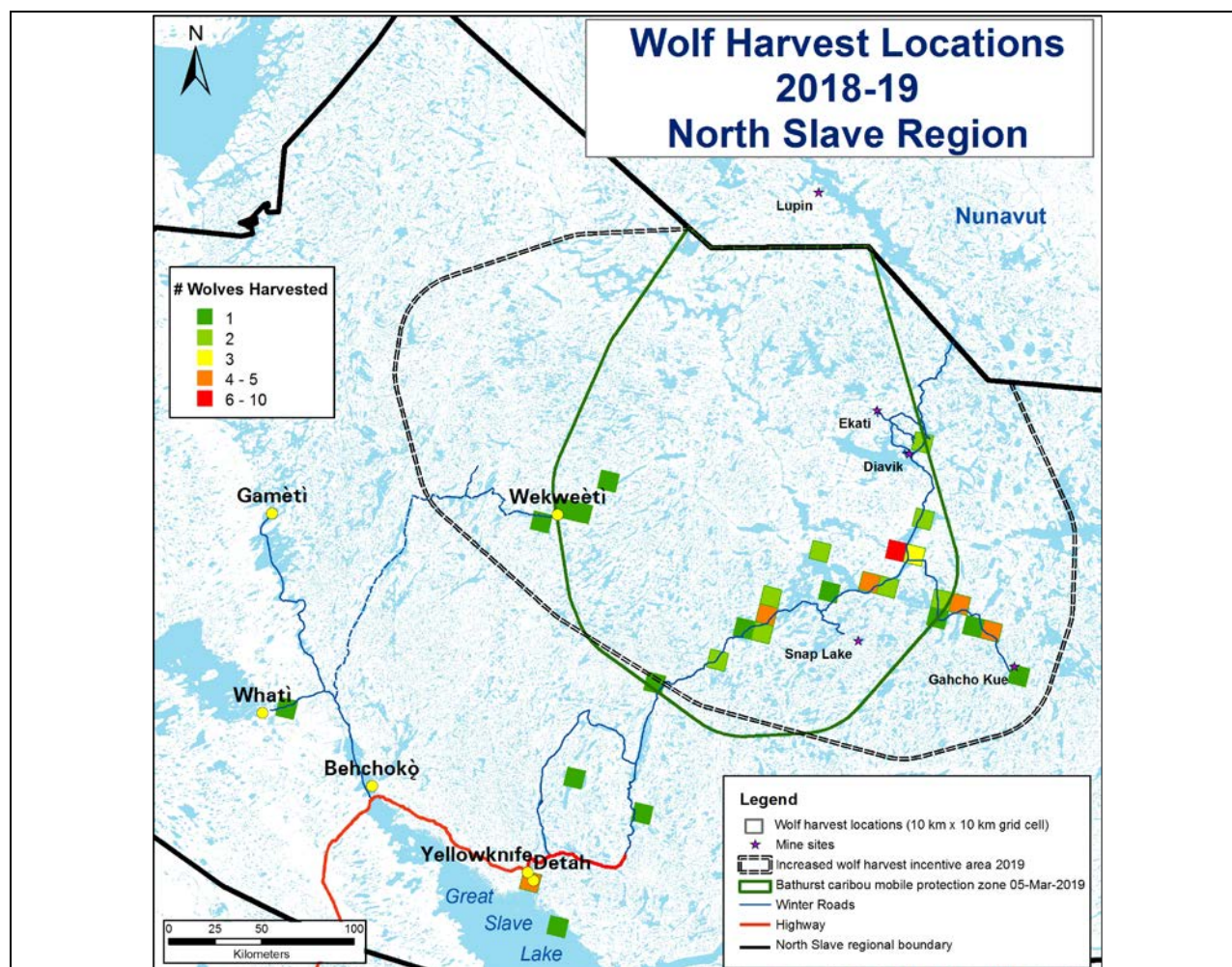


Figure 4: Distribution of North Slave wolf harvest in 2019, primarily along the winter road

3: Research, Monitoring and Assessment

Action 3.1: Collecting Information from North Slave and Nunavut Wolf Harvesters

A survey of all wolf harvesters in the North Slave Wolf Harvest Incentive Area is being proposed to collect information on abundance, location and harvest of wolves. Information will be collected not only from wolf harvesters that successfully harvest wolves, but also from harvesters who spend time searching for wolves but are unsuccessful at harvesting. The GNWT has updated the Enhanced North Slave Wolf Harvest Incentive Program survey used in 2018/2019 to help evaluate the relative abundance of wolves and ways to improve the program. The intent is to have all potential wolf harvesters in the Enhanced North Slave Wolf Harvest Incentive Area complete the survey.

Harvesters will be encouraged to stop at check-in stations to answer a series of questions, including the number of hours or days spent harvesting, distance travelled (km) and the number

of wolves (singles, packs) observed during their trip. This information will help determine “catch per unit effort,” an established technique for assessing the relative abundance of a target species (Rist et al. 2009).

As the number of wolves decreases, it will take more effort and longer distances for harvesters to observe wolves. Documenting the time and effort involved provides useful trend information and feedback on the effectiveness of the proposed management actions to reduce the number of wolves from the winter range of the Bathurst and Bluenose-East caribou herds. Successful harvesters will be asked these same questions when submitting their wolf carcasses (if not reported previously) to ensure a maximum number of harvesters participate. To encourage participation in the survey, the GNWT will provide participating harvesters with a \$25 gift card.

Action 3.2: Wolf Collaring

The GNWT will deploy satellite collars on up to 30 wolves to support the wolf monitoring and management actions being proposed. Collared wolves will assist in our understanding of wolves on the winter range of the Bathurst and Bluenose-East caribou herds, and support wolf management actions. The rationale and benefits of collaring are as follows:

- Wolf collars provide real-time information on location of individual wolves and associated packs. The GNWT currently uses caribou collar data as a proxy for higher wolf densities. Having wolf location data, in relation to core caribou wintering areas, provides insight into how wolves are traveling among caribou on the winter range.
- Wolf collars can be used to identify new and active den sites – information that is lacking on the BNE winter range, and needs updating on the Bathurst winter range.
- Wolf collaring data may provide insight into movement of individual wolves between caribou winter ranges (emigration/immigration) and document fidelity to den sites.

Considering these various benefits, collaring is expected to significantly enhance the success of the management actions and monitoring approaches outlined in this proposal.

Wolf collar deployment will be timed to coincide with annual caribou collaring efforts to increase the chance of detecting wolves as well as the efficiency of collaring efforts. However, it may be necessary to dedicate additional time to ensure that all 30 wolf collars are deployed in early 2020.

Once wolf collars are deployed, it is anticipated that harvesting efforts across the North Slave Region may include the incidental harvest of an occasional collared wolf. The GNWT will replace wolf collars as required to maintain a sample size of 30 wolf collars.

Action 3.3: Biological Research and Monitoring

The GNWT will necropsy, collect biological information and samples, and conduct laboratory analysis on a sub-sample of wolves taken under this program. The information collected from the wolves will include:

- Sex;
- Age class;
- Health;
- Condition; and
- Diet.

A statistically representative number of wolves will be tested to address key research and

monitoring questions, including the diet and age of harvested wolves. Consideration will need to be given to sampling on the Bathurst versus Bluenose-East winter ranges (when range is not overlapping), sampling males versus females, adults versus pups, as well as seasonal variation (January versus April). It is anticipated that most skulls will be processed in order to obtain a breakdown of the sex and age class structure of the harvest. The proportion of carcasses that will be necropsied to assess wolf health, condition and diet will be outlined within a more detailed operational plan. Wolves harvested by Inuit harvesters within the North Slave Region will also be monitored.

Action 3.4: Estimating Actual Wolf Removal Levels on Caribou Winter Ranges

Wolf removal levels are a key performance indicator for assessing both the efficiency of removal techniques and the effectiveness of wolf removal on caribou populations.

The process of assigning a wolf to a particular caribou herd's winter range will be based on the recorded locations and dates of wolf kills relative to a spatial probability map surface generated from home range analyses of caribou collar data from Bathurst, Bluenose-East and Beverly herds (see caribou collar data analysis). The spatial probability surface will integrate kernel density isopleths for each of the three herds with an index of current herd size to assign a likelihood or ranking of a killed wolf to an associated caribou herd. Assigning wolves to caribou herds is relatively straightforward when there is little to no spatial overlap among caribou winter ranges, and assuming there is minimal movement of wolves between herds. Assignment becomes increasingly uncertain when there is high spatial overlap and a large discrepancy between herd sizes, which has been the case over the last two winters.

This framework provides an initial approach for addressing uncertainty in assigning wolf removal levels to caribou herd winter ranges. For wolf reduction on barren-ground caribou winter range, the objective is to reduce wolves so that caribou survival rates increase and the population grows. The objective is not to eradicate wolves. Our understanding of wolf ecology is that the risk of population extirpation is exceedingly low, because juvenile wolves can immigrate from hundreds to thousands of kilometres away.

Action 3.5: Monitoring Catch Per Unit Effort for Wolf Harvesters

Catch Per Unit Effort (CPUE) is a well-recognized technique to assess the relative abundance of wolves on the winter range of the Bathurst and Bluenose-East herds. CPUE will be monitored within the Enhanced North Slave Wolf Harvest Incentive Area each winter, and we anticipate that fewer wolves will be observed and harvested per hour of effort or distance travelled as wolf removals occur. As management efforts begin to reduce wolf numbers, more time and effort will be required to harvest a declining number of wolves.

Action 3.6: Monitoring Barren-ground Caribou Herd Demographic Data for Improvement

The approach will be to test and assess the relative effect of estimated wolf removal levels on herd-specific monitoring data, including adult female survival (estimated and modelled), age ratios and population trends. Multiple factors (environmental, disturbance and predation) are believed to be influencing the health and status of the Bathurst and Bluenose-East caribou herds. It is anticipated that reduction in wolf numbers should allow for an increase in caribou cow and calf survival rates, which in turn will promote caribou recovery.

Given the complexity and uncertainty around interactions between key factors influencing barren-ground caribou populations, caution is required when attempting to interpret and attribute the specific contribution of wolf reduction to any observed changes in caribou productivity and/or

population trends. For example, the influence of other factors such as environmental conditions, biting insects, anthropogenic disturbance and caribou harvesting may also be affecting caribou productivity and/or survival rates.

5 Consultation

This proposal was jointly developed by the GNWT and the Tłı̨chǫ Government, and has included discussions with Tłı̨chǫ communities and leaders. Wolf management actions were also discussed at the WRRB's public hearing on the Bluenose-East herd held in Behchokǫ, April 9-11, 2019. The GNWT will conduct consultation with Indigenous governments and organizations on this proposal in January 2020.

6 Communications Plan

General approach

The general communications approach will be proactive and aimed at large, but specific audiences. Information about program activities, incentives, training opportunities and other general information will be relayed to key audiences – primarily communities, harvesters and the general public – through a variety of advertising and promotional channels, including print, radio, online and in-person. These communications will be done in Tłı̨chǫ Yatı, English, French and other Indigenous languages as required and where possible.

Communications will be aimed at achieving the following objectives:

- Highlight that wolf management actions will support the traditional economy and be based primarily on ground-based harvesting, with aerial removals only considered if ground-based activities are unable to reach removal targets.
- Ensuring the public understands the scientific and traditional knowledge rationale behind predator management as one aspect of a larger co-management approach for barren-ground caribou recovery.
- Ensuring harvesters are aware of wolf harvest incentives and know how to participate in the traditional economy by promoting training opportunities, eligibility criteria, safety information, wildlife regulations and harvesting best practices.
- Amplifying northern voices and knowledge in discussions about the effectiveness of predator management, especially those of our residents and co-management partners.
- Making the public aware of training and incentives that enable and encourage NWT residents to go on the land and participate in the traditional economy.

7 Relevant Background Supporting Documentation

- Boulanger, J., and J. Adamczewski. 2017. Analysis of environmental, temporal, and spatial factors affecting demography of the Bathurst and Bluenose-East caribou herds. Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, Northwest Territories, Canada. Manuscript Report (draft contract report).
- Boulanger, J., J. Z. Adamczewski, J. S. Nishi, H. D. Cluff, J. Williams, H. Sayine-Crawford, and L.-M. Leclerc. 2019. Estimates of breeding females and adult herd size and analyses of demographics for the Bluenose-East herd of barren-ground caribou: 2018 calving ground photographic survey. Manuscript Report No. 278. Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT. 98 pp.
- Boulanger, J., J. Z. Adamczewski, J. S. Nishi, H. D. Cluff, J. Williams, H. Sayine-Crawford, and L.-M. Leclerc. In prep. Estimates of breeding females and adult herd size and analyses of demographics for the Bathurst herd of barren-ground caribou: 2018 calving ground photographic survey. Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT.
- Cluff, D. 2019. Wolf harvest Report 2018-19, North Slave Region, Unpublished Report, Department of Environment and Natural Resources, GNWT, Yellowknife, NT. 10 pp.
- Klaczek, M. 2015. Denning ecology of barren-ground wolves in the central Canadian Arctic. M.Sc. Thesis 116 pp.
- McLaren, A. 2016. Wolf Management Programs in Northwest Territories, Alaska, Yukon, British Columbia, and Alberta: A Review of Options for Management on the Bathurst Caribou Herd Range in the Northwest Territories. Report prepared for the Department of Environment and Natural Resources, Yellowknife, NT. 32 pp.
- Rist, J., E.J. Milner-Guiland, G. Cowlshaw, and M. Rowcliff. 2009. Hunter Reporting of Cath Per Unit Effort as a Monitoring Tool in a Bushmeat-Harvesting System. *Conservation Biology* 24(2): 489-499.
- Russell, D. 2010. A review of wolf management programs in Alaska, Yukon, British Columbia, Alberta and Northwest Territories. Unpublished Report, Whitehorse, YT. 47 pp.
- Wek'èezhìi Renewable Resources Board (WRRB). 2010. Report on a Public Hearing Held by the Wek'èezhìi Renewable Resources Board 22-26 March 2010-6 August 2010 Behchokq, NT & Reasons for Decisions Related to a Joint Proposal for the Management of the Bathurst Caribou Herd. 8 October 2010. WRRB Unpublished Report, Yellowknife, NT. 20 pp.
- Wek'èezhìi Renewable Resources Board (WRRB). 2016a. Report on a Public Hearing Held by the Wek'èezhìi Renewable Resources Board, 23-24 February 2016, Yellowknife, NT., & Reasons for Decisions Related to a Joint Proposal for the Management of the Bathurst ekwò (Barren-ground caribou) Herd - PART A. Wek'èezhìi Renewable Resources Board, Yellowknife, NT.
- Wek'èezhìi Renewable Resources Board (WRRB). 2016b. Reasons for Decisions Related to a Joint Proposal for the Management of the Bathurst ekwò (Barren-ground caribou) Herd - PART B. Wek'èezhìi Renewable Resources Board, Yellowknife, NT.
- Wek'èezhìi Renewable Resources Board (WRRB). 2019a. Reasons for Decisions Related to a Joint Proposal for the Management of the Kok'èeti Ekwò (Bathurst Caribou) Herd. Wek'èezhìi Renewable Resources Board, Yellowknife, NT. 53 pp. + Appendices.
- Wek'èezhìi Renewable Resources Board (WRRB). 2019b. Reasons for Decisions Related to a Joint Proposal for the Management of the Sahti Ekwò (Bluenose-East Caribou) Herd. Wek'èezhìi Renewable Resources Board, Yellowknife, NT. 66 pp. + Appendices.
- Wolf Feasibility Assessment Technical Working Group (WFATWG). 2017. Wolf Technical Feasibility Assessment: Options for Managing Wolves on the Range of the Bathurst Barren-ground Caribou Herd. Wolf Feasibility Assessment Technical Working Group, Yellowknife, Northwest Territories. C/O Wek'èezhìi Renewable Resources Board, 102A, 4504 – 49 Avenue, Yellowknife, NT, X1A 1A7.

8 Relevant Background Supporting Documentation

Appendix A: Timeline of previous and proposed management actions for Bathurst and BNE caribou in Wek'èezhìi

	Previous Years										Current Year	Future Years										
Mgmt Lever																						
Harvest Wolves Range	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
											1	2	3	4	5	6	7	8	9	10		
												1	2	3	4	5	6	7	8	9	10	
Bathurst Herd	2009 ^a	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Harvest Management (allowable harvest)	Interim Emergency Measures (0)	Harvest Target (300 8M:1F) ^b					MCBCCA ^c & Ceremonial Harvest (15 M only)	TAH ^d (0)			TAH (0)	Caribou Harvest Management (likely continued)										
Wolf Management								Wolf Technical Feasibility Assessment			Joint Wolf Management Proposal	Wolf Reduction Initiated			Wolf Reduction Program Review						Wolf Reduction Program Review	
Range (disturbance) Management							Develop Bathurst Caribou Range Plan (BCRP)				BCRP (approved by GNWT Cabinet & WRRB)	Implement BCRP			BCRP Review Assessment Renewal						BCRP Review Assessment Renewal	
Bluenose East Herd	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Harvest Management (allowable harvest)								TAH (750 M only)			TAH (193 M only)	Caribou Harvest Management (likely continued)										
Wolf Management									Wolf Technical Feasibility Assessment			Joint Wolf Management Proposal	Wolf Reduction Initiated			Wolf Reduction Program Review						Wolf Reduction Program Review

^a Yellow shading indicates years where calving ground photographic surveys were conducted in previous years or planned for future years. A two-year interval for future calving ground surveys was assumed based on recent joint management proposals submitted by the Tlicho Government and the Government of the Northwest Territories to the Wek'èezhìi Renewable Resources Board.

^b M = Male; F = Female

^c MCBCCA = Mobile Core Bathurst Caribou Conservation Area implemented in 2015/16

^d TAH = Total Allowable Harvest

→ Previous actions

-----> Planned or proposed actions

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9 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 January 13, 2020 until July 1, 2025. Tłıchǫ Government and the GNWT suggest that management actions be reviewed annually or whenever key additional information is available.

10 Other Relevant Information

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

n/a

11 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'èezhii Renewable Resources Board
102A, 4504 – 49 Avenue
Yellowknife, NT X1A 1A7
Phone: (867) 873-5740
Fax: (867) 873-5743
Email: jpellissey@wrrb.ca



February 6, 2019

Hon. Robert C. McLeod, Minister
Environment and Natural Resources
Government of the Northwest Territories
Box 1320
Yellowknife, NT X1A 2L9
Email: Robert_C_McLeod@gov.nt.ca

Via Email
Robert_C_McLeod@gov.nt.ca
georgemackenzie@tlicho.com

Grand Chief George Mackenzie
Tłıchq Government
Box 412
Behchokò, NT X1A 1Y0
Email: georgemackenzie@tlicho.com

Re: Section 12.5.6 of the Tłıchq Agreement – WRRB Predator Management Recommendations

Dear Minister McLeod & Grand Chief Mackenzie:

Background:

The *Kokèti Ekwò* (Bathurst caribou) and *Sahti Ekwò* (Bluenose-East caribou) herds are both in a precipitous decline. The decline of the *kokèti ekwò* herd was first documented in 1996 when the population was estimated at 349,000 animals, down from 420,000 in 1986. Management actions to date have failed to halt the decline and the herd's population was estimated at 8,200 animals in 2018. The decline of the *sahti ekwò* herd was first documented in 2013 when the herd's population was estimated at 68,000 animals, down from 121,000 in 2010. In 2018, the herd's population was estimated at 19,000 animals.

Range management, harvest restrictions and intensive study are being implemented or are already occurring in Wek'èezhìi for both herds. Previous joint management proposals for the *kokèti ekwò* herd by the Department of Environment & Natural Resources (ENR), Government of the Northwest Territories (GNWT) and Tłıchq Government (TG) resulted in the Wek'èezhìi Renewable Resources Board (WRRB) holding public hearings in 2010 and again in 2016. A public hearing was also held to address management proposals for the *sahti ekwò* herd in 2016.

On January 14 and January 22, 2019 respectively, the WRRB received joint management proposals for the *sahti ekwò* and *kokèti ekwò* herds. These management proposals propose a number of actions. However, despite WRRB recommendations for the implementation of predator control dating as far back as 2010, neither of the current management proposals includes a plan for predator management in either the *sahti ekwò* or *kokèti ekwò* ranges. Instead your governments have indicated their intention to address the control of predators, more specifically *Dìga* (wolves), in a separate joint management proposal later in the spring of 2019.

The Issue:

The situation for both of these herds is dire. Analysis of the joint management proposals by the Board and its advisors indicates an immediate need for action to reduce predation on the herds. During its 2016 public hearings and most recently in the TG-ENR *Ekwò* (barren-ground caribou) consultation tours, conducted on January 21-23, 2019, the WRRB has heard from the community members that *dìga* are continuing to put pressure on *ekwò* populations. Community members would like to see action taken now. The Board agrees.

The Authority for WRRB Recommendations:

Section 12.5.6 of the Tłıchq Agreement states:

The Wek'èezhì Renewable Resources Board may, without waiting for a proposal from a Party, make the following recommendations or determinations, after consulting with any Party or body with powers to manage any aspect of the subject matter of its recommendation or determination:

- (a) Recommend actions for management of harvesting in Wek'èezhì, including*
 - (i) A total allowable harvest level for any population or stock of fish,*
 - (ii) Harvest quotas for wildlife or limits as to location, methods, or seasons of harvesting wildlife, or*
 - (iii) The preparation of a wildlife management plan; ...*

The WRRB has chosen not to wait for ENR and TG to submit their predator management proposal to the Board later this spring. The 20% rate of annual decline of the *kokètì ekwò* and *sahtì ekwò* herds is in the Board's opinion so serious that waiting any longer to act will make recovery of the herds even more difficult. The Board is convinced that early action is essential.

In consideration of the updated 2018 *sahtì ekwò* and *kokètì ekwò* herd estimates and recent consultations with Tłıchq communities the WRRB makes the recommendations set out below to GNWT and the TG:

Recommendation #1-2019 (Predator): The WRRB supports continuing the ENR's *dìga* harvest incentive program and the TG's Community Based *Dìga* Harvesting Project as an education tool.

Recommendation #2-2019 (Predator): The WRRB recommends that *dìga* monitoring be undertaken so that population estimates, or indexes are generated. In addition, as much information as possible, including condition, diet, and reproductive status, should be collected from each harvested *dìga*.

Recommendation #3-2019 (Predator): The WRRB recommends that *dìga* management be undertaken in Wek'èezhì. TG and ENR should review the "*Wolf Technical Feasibility Assessment: Options for Managing Wolves on the Range of the Bathurst Barren-ground Caribou Herd*" submitted in November 2017 to determine the most effective, humane and cost-efficient methods that would have the least impact and disturbance on the *ekwò* herds themselves.

Recommendation #4-2019 (Predator): The WRRB recommends that *dìga* management should be closely monitored for effectiveness of halting or slowing the decline of the *sahtì ekwò* and *kokètì ekwò* herds in order to provide future harvesting opportunities.

Recommendation #5-2019 (Predator): The WRRB recommends that the GNWT and TG work with the Government of Nunavut to enact predator management actions on the calving grounds of sahtì ekwò and kokètì ekwò in Nunavut.

Recommendation #6-2019 (Predator): The WRRB commits to striking a working group to begin work on a *sahcho* (grizzly bear) biological assessment by June 2019, specifically on the sahtì ekwò and kokètì ekwò herds herd ranges. This working group will include at minimum the GNWT, TG and the Government of Nunavut. WRRB staff recommend that *sahcho* are monitored in order to determine if pressures are increasing on ekwò.

Recommendation #7-2019 (Predator): WRRB staff recommend that *golden det'qcho* (golden eagle) are monitored in order to determine if pressures of golden det'qcho are increasing on ekwò. WRRB staff recommends that TG and the GNWT work with the Government of Nunavut to support golden det'qcho monitoring.

In addition, as per Section 12.5.8 of the Tłıchq Agreement, the Board requests a response to these recommendations by March 6, 2019.

Conclusion:

The WRRB believes that predator management must begin by May 2019 in order to promote recovery of the herds. This action is essential to ensure the potential for a future harvest of sahtì ekwò and kokètì ekwò.

The WRRB will, in accordance with the Tłıchq Agreement participate in any consultations on these proposals that the ENR or TG decides to undertake.

If there are any questions, please contact our office at (867) 873-5740 or jpellissey@wrrb.ca.

Sincerely,



Joseph Judas, Chair
Wek'èezhìi Renewable Resources Board

Cc Dr. Joe Dragon, Deputy Minister, ENR-GNWT
 Rita Mueller, Assistant Deputy Minister, Operations, ENR-GNWT
 Bruno Croft, Superintendent, North Slave Region, ENR-GNWT
 Laura Duncan, Tłıchq Executive Officer, TG
 Tammy Steinwand-Deschambeault, Director, Culture and Lands Protection, TG
 Michael Birlea, Manager, Culture and Lands Protection, TG



MAR 07 2019

Mr. Joseph Judas, Chair
Wek'èezhì Renewable Resources Board
4504 49TH AVENUE
YELLOWKNIFE NT X1A 1A7

Dear Mr. Judas:

Re: Section 12.5.6 of the Tłıchǫ Agreement – WRRB Predator Management Recommendations

Thank you for your letter dated February 6, 2019 providing the Wek'èezhì Renewable Resources Board's (WRRB) recommendations to the Tłıchǫ Government (TG) and the Department of Environment and Natural Resources (ENR), Government of the Northwest Territories.

TG and ENR are providing the attached joint response to the WRRB's recommendations.

Sincerely,

Grand Chief George Mackenzie
Tłıchǫ Government
Behchokò, NT

Robert C. McLeod, Minister
Environment and Natural Resources
Yellowknife, NT

Attachment

- c. Dr. Joe Dragon, Deputy Minister
Environment and Natural Resources

Ms. Rita Mueller, Assistant Deputy Minister, Operations
Environment and Natural Resources

Dr. Brett Elkin, Director, Wildlife
Environment and Natural Resources

Mr. Bruno Croft, Superintendent, North Slave Region
Environment and Natural Resources

Ms. Laura Duncan, Tłıchǵ Executive Officer
Tłıchǵ Government

Ms. Tammy Steinwand-Deschambeault, Director, Culture and Lands Protection
Tłıchǵ Government

Mr. Michael Birlea, Manager, Culture and Lands Protection
Tłıchǵ Government

Ms. Jody Pellissey, Executive Director
Wek'èezhì Renewable Resources Board

WRRB Predator Management Recommendations

Recommendation #1-2019 (Predator): The WRRB supports continuing the ENR's dīga harvest incentive program and the TG's Community Based Dīga Harvesting Project as an education tool.

Response:

ENR and TG accept this recommendation.

ENR thanks the WRRB for their support of the Enhanced North Slave Wolf Harvest Incentive Program and notes that the program will continue until the prime fur season for wolves ends on May 31.

TG acknowledges and thanks the WRRB for its support of the Tłıchq Community-Based Dīga Harvesting Project, which is still under development. Tłıchq elders have been key proponents for developing and implementing a training program for Tłıchq hunters to become knowledgeable and effective harvesters of dīga. The training program engages Tłıchq elders directly so that Tłıchq knowledge and practices for hunting dīga are maintained and transmitted to the next generation of hunters. TG staff are working with selected Tłıchq hunters to provide them with additional training on harvesting and skinning methods through workshops that will be held in collaboration with ENR.

Recommendation #2-2019 (Predator): The WRRB recommends that dīga monitoring be undertaken so that population estimates, or indexes are generated. In addition, as much information as possible, including condition, diet, and reproductive status, should be collected from each harvested dīga.

Response:

ENR and TG accept this recommendation. ENR and TG agree that important aspects for assessing wolf management actions will be to a) monitor the relative abundance of dīga based on indices as removal actions are undertaken and b) evaluate health and condition of dīga including age, sex, diet, and reproductive status.

ENR and TG will develop and pilot a protocol for monitoring relative abundance of dīga in an adaptive manner to evaluate feasibility of sampling and robustness of results.

For each wolf carcass ENR receives, basic data on age, sex, diet, and reproductive status will be collected.

Recommendation #3-2019 (Predator): The WRRB recommends that dīga management be undertaken in Wek'èezhìi. TG and ENR should review the “*Wolf Technical Feasibility Assessment: Options for Managing Wolves on the Range of the Bathurst Barren-ground Caribou Herd*” submitted in November 2017 to determine the most effective, humane and cost-efficient methods that would have the least impact and disturbance on the ekwò herds themselves.

Response:

ENR and TG accept this recommendation, and will use the feasibility assessment to develop the program.

ENR's Enhanced North Slave Wolf Incentive Program encourages harvesters to undertake ground-based shooting and/or snaring on the winter range of the Bluenose-East and Bathurst barren-ground caribou herds. The program is an extension of the previous program and was implemented to address requests from Indigenous hunters for further incentives to harvest wolves. This pilot project includes monitoring; ENR will track the number of dīga harvested and the observations of dīga reported by hunters as well as hunters' feedback on the logistics of harvesting dīga on the winter range. ENR will adaptively manage this program; if it is clear that this program is not resulting in a significant number of harvested dīga, enhancements will be made to the program and/or other options outlined in the feasibility assessment will be considered.

Recommendation #4-2019 (Predator): The WRRB recommends that dīga management should be closely monitored for effectiveness of halting or slowing the decline of the sahtì ekwò and kokètì ekwò herds in order to provide future harvesting opportunities.

Response:

ENR and TG accept this recommendation. ENR and TG are working together to develop management actions to help recover caribou and developing a joint proposal on dīga management. Monitoring will be included as part of the implementation of any wolf management program. At the same time, ENR and TG have proposed to increase the monitoring of both the sahtì ekwò and kokètì ekwò herds as outlined in the *Joint Proposal on Management Actions for the Bluenose-East ?ekwò (Barren-ground caribou) Herd: 2019-2021* and the *Joint Proposal on Management Actions for the Bathurst ?ekwò (Barren-ground caribou) Herd: 2019-2021*.

Recommendation #5-2019 (Predator): The WRRB recommends that the GNWT and TG work with the Government of Nunavut to enact predator management actions on the calving grounds of sahtì ekwò and kokètì ekwò in Nunavut.

Response:

As neither ENR nor TG have law-making jurisdiction in Nunavut we are unable to accept the recommendation as worded. ENR and TG would like to vary this recommendation, as the GNWT and TG can discuss potential predator management actions on the calving grounds of sahtì ekwò and kokètì ekwò with the Government of Nunavut.

Recommendation #6-2019 (Predator): The WRRB commits to striking a working group to begin work on a *sahcho* (grizzly bear) biological assessment by June 2019, specifically on the sahtì ekwò and kokètì ekwò herds herd ranges. This working group will include at minimum the GNWT, TG and the Government of Nunavut. WRRB staff recommend that *sahcho* are monitored in order to determine if pressures are increasing on ekwò.

Response:

ENR and TG accept the first half of this recommendation. ENR and TG will participate in a collaborative process to work on a *sahcho* biological assessment led by WRRB staff. ENR can provide information on *sahcho* from the Northwest Territories. In April 2017, the Northwest Territories Species at Risk Committee released the “Species Status Report for Grizzly Bear (*Ursus arctos*) in the Northwest Territories”, which includes both traditional knowledge and science. This status report provides a thorough biological assessment of *sahcho* within the NWT and should form a basis for the biological assessment.

As neither ENR nor TG have jurisdiction in Nunavut we are unable accept the second half of this recommendation as worded. Despite this, ENR can discuss potential *sahcho* monitoring in order to determine if pressures are increasing on ekwò with the Government of Nunavut. ENR and TG recognize that *sahcho* are an important predator on the calving and post-calving grounds of ekwò. As the majority of the calving grounds and post-calving ranges of the sahtì ekwò and kokètì ekwò herds are in Nunavut, monitoring the pressures of *sahcho* on ekwò will occur in Nunavut and be the responsibility of the Government of Nunavut.

The TG Boots on the Ground program is one method of tracking *sahcho* on the Bathurst range and in the future on the Bluenose-East range. *Sahcho* have been observed during the TG Boots on the Ground program.

Recommendation #7-2019 (Predator): WRRB staff recommend that *golden det'qcho* (golden eagle) are monitored in order to determine if pressures of golden det'qcho are increasing on ekwò. WRRB staff recommends that TG and the GNWT work with the Government of Nunavut to support golden det'qcho monitoring.

Response:

As neither ENR nor TG have jurisdiction in Nunavut we are unable accept the recommendation as worded. ENR and TG would like to vary this recommendation, as TG and ENR can discuss potential options for monitoring both golden det'qcho and bald eagles with the Government of Nunavut.

ENR and TG recognize that eagles and in particular golden det'qcho have been identified as a significant predator of caribou calves in other barren-ground caribou herds.

The TG Boots on the Ground program is one method of tracking eagles on the Bathurst range and in the future on the Bluenose-East range. Bald eagles have been observed during the TG Boots on the Ground program.