



# Taking Care of Caribou

The  
**CAPE BATHURST, BLUENOSE-WEST,  
AND BLUENOSE-EAST BARREN GROUND  
CARIBOU HERDS MANAGEMENT PLAN**

Submitted by The Bluenose Caribou Management Plan  
Working Group in partnership with Terriplan Consultants to:

**Advisory Committee for the Cooperation on  
Wildlife Management**

**May 9, 2011**



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## 1.0 Preamble

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This Plan is called *Taking Care of Caribou*. For as long as Aboriginal people have harvested caribou, they have felt a responsibility to take care of the caribou as related in many oral histories. Barren-ground caribou and the Aboriginal people of the North have a complex and ancient history – the abundance and health of the caribou has profoundly influenced the distribution and health of the people.

In the past, traditional harvesting practices that showed respect for caribou helped to keep a balance between harvesters and caribou. These traditional practices were a way of “managing” the caribou. However, elders recall times when caribou were scarce and people searched out other species - for some regions it was moose and for others it was fish. Their knowledge indicates that caribou populations have a natural cycle of 30-60 years where herds go from high to low numbers and back again.

The basic ways of showing caribou respect through Aboriginal harvesting practices is:

- Take only what you need
- Always share with others in need
- Use all parts of the caribou

All the communities in the range of these three herds - the Cape Bathurst, the Bluenose-West, and the Bluenose-East - have been engaged for their input and knowledge. During community meetings, many participants expressed concern about how historical events, modern practices, and changing cultures have affected the relationship between Aboriginal people and caribou. In the past, as now, taking care of caribou has been about managing human actions to sustain healthy caribou populations. The challenge is to create a plan that respects Aboriginal rights and finds a balance between the resources we use today and the resources we leave for future generations.

For decades, Aboriginal people have worked hard to settle their comprehensive land claims so they would have greater control over their land and their lives. The treaties and land claim agreements provide for certain rights for both the ability and the responsibility to manage wildlife.

*“It’s very hard for elders to express their feelings when they are asked about caribou. I have feelings for the caribou. We really take care of the caribou... people from the government... don’t understand the Dene way and how we relate to the caribou.”*

(Délı̄nē)



*“All herds are declining. We are not traditional hunters anymore. There are more hunters than before, and younger hunters. We can’t say there are many caribou and we can just hunt what we please. We need to think about our future generations.”*

(Kugluktuk)

*“You know we all settled our land claims so we could make decisions rather than government. We have responsibilities that government had in the past. Now we may need to make some difficult decisions, as part of the management plan.”*

(Inuvik)

Observations by caribou harvesters and elders, and the results of scientific studies, indicate that barren-ground caribou populations in the western arctic declined in the early 2000s. In some cases the decline was quite drastic. Although there is no consensus on the cause of the decline, all agree that caribou are an essential resource and central to the social, economic, cultural, and spiritual well-being of the local people. Considering what is at stake, it is important to have a plan to sustain these herds so we may have *caribou forever*.

The Advisory Committee for Cooperation on Wildlife Management (ACCWM), comprised of seven co-management boards and agencies, was established in 2008. It decided, as a matter of priority, to form the Bluenose Caribou Management Plan Working Group (BCMPWG or the Working Group) to develop a plan for the three caribou herds. This plan was developed with strong involvement by the 15 communities, in six land claim areas, that harvest these caribou.

## 2.0 Why Make a Plan Now

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### 2.1 Introducing the Plan

Historically, the 'Bluenose Caribou Herd' occupied what is now the northern portion of mainland Northwest Territories (NWT) and western Nunavut. However, the study of caribou movements using satellite collars and genetic studies revealed that there are three different herds with three distinct calving grounds. The Cape Bathurst, Bluenose-West, and Bluenose-East herds are the names which replace the general term 'Bluenose Caribou Herd'.

The Plan describes:

- Principles and goals for taking care of the three herds;
- The need for a plan now and the importance of working together;
- Current population estimates and trends;
- Roles and responsibilities of the wildlife co-management boards and agencies;
- Information required to effectively manage the herds;
- How to make decisions on managing the herds;
- A framework for determining what management actions should be taken; and
- How to communicate with communities, harvesters, youth, and others.

An ENR-GNWT companion document (Technical Herd Status Report) provides more detail on herd status.

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*"It hurts to see less caribou because we need them for so much. We here have caribou as food – we just take what we need. We talk among the community and discuss what's needed."*

(Déljñę)

## 2.2 Working Together Now and Into the Future

The ACCWM was established to “exchange information, help develop cooperation and consensus and make recommendations regarding wildlife and wildlife habitat issues that cross land claim and treaty boundaries.” The ACCWM<sup>1</sup> consists of the Chairpersons (or alternate appointees) of:

- Wildlife Management Advisory Council (NWT) (WMAC\_NWT);
- Gwich’in Renewable Resources Board (GRRB);
- Sahtú Renewable Resources Board (SRRB);
- Wek’èezhìi Renewable Resources Board (WRRB);
- Kitikmeot Regional Wildlife Board (KRWB);
- Tuktut Nogait National Park Management Board (TNNPMB); and
- Nunavut Wildlife Management Board (NWMB).

The ACCWM decided to develop a plan for the Cape Bathurst, Bluenose-West, and Bluenose-East barren-ground caribou herds. While the immediate need for the plan was in response to drastic declines in the herds, the intent is for the plan to address caribou management over the long term. The ACCWM identified the need to:

- Develop a cooperative approach to managing the herds;
- Protect the habitat in the herds’ range, and
- Make decisions on the shared harvests in an open and fair manner.

As was clearly heard in community engagement meetings, the users expect government and the wildlife co-management boards to work together, and with the communities, to ensure that there are indeed *caribou forever*.

The ACCWM established a Working Group<sup>2</sup> to:

- Prepare a draft plan for the Cape Bathurst, Bluenose-West, and Bluenose-East caribou herds and their habitat for recommendation to the ACCWM;
- Recommend an approach with respect to the shared responsibility for implementing the plan; and
- Promote and strengthen communication and sharing of information among all groups interested in, or responsible for, the management of these herds and their habitat.

“Some people have stopped hunting, hoping that this will help there be more caribou for grandchildren. One harvester has stopped for 6 years now.”  
(Inuvik)

<sup>1</sup> The Dehcho First Nation is part of the Working Group. There is an outstanding invitation for them to join the ACCWM.

<sup>2</sup> See Appendix D for a list of ACCWM and BCMPWG member organizations



*“Use traditional knowledge: it’s very important to our way of hunting” (gather knowledge and then use it to develop the management plan). (Fort McPherson)*

*“Back in the 1950-60s, you did not hear about declines in caribou because Aboriginal people were managing properly. We used community freezers which were filled with bulls from fall community hunts. People were allowed to take meat once a week from the freezer. We need to go back to the old ways of managing things.” (Tulit’a)*

### 3.0 How the Plan Was Put Together

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The Plan was developed in close consultation with the communities that harvest from the three herds. Two rounds of community engagement in 2009-2011 involved 15 communities in five regions - Inuvialuit, Gwich’in, Sahtú, Tlicho and Kitikmeot, NU.

Because these herds are shared across jurisdictions and among many communities, it is very important that everyone works together. It was necessary to seek the experience, input, and advice of all regions and communities. The community engagements were designed to:

- **Share the best available information** on the status of the herds, including both scientific information and harvester observations.
- **Identify the key issues and concerns** for each community, e.g. what do you think is happening to the herds? Why?
- **Discuss possible solutions:** What can we do to address these issues and concerns? How can we include this in a plan?
- **Outline the next steps** in developing a plan.

Summary reports from the community engagements were prepared by the Working Group and provided to each community. Copies (e.g. *Developing a Caribou Management Plan: Summary of Phase I Consultations in the Inuvialuit Settlement Region; December 2009*) are available from Working Group representatives (see Appendix B).

### 4.0 What We Are Trying To Do With the Plan

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The ultimate goal of this plan is to ensure that there are “caribou forever” - caribou for today and for future generations. The herds will be managed to:

- Conserve vital, healthy caribou herds and habitat; and
- Keep the overall harvest within sustainable limits.



The ACCWM believes that traditional Aboriginal values and practices should be protected and promoted, including values such as respect for wildlife and traditional lands. It also includes the traditional harvesting practices of taking only the amount needed, using all parts of the caribou, sharing, and passing on traditional methods and beliefs to the next generation. This plan supports those values and reflects the following principles:

- Management decisions will respect treaties and land claim agreements and Aboriginal harvesting rights in areas both with and without a land claim agreement.
- Management decisions will reflect the wise use of the herds in a sustainable manner.
- Adequate habitat (quantity and quality) is fundamental to the welfare of the herds.
- Management decisions will be based on the best available information - both science and TEK; and will not be postponed in the absence of complete information.
- Effective management requires participation, openness and cooperation among all users and agencies responsible for the herds and their habitat. Shared use requires shared responsibility.
- Harvests must be allocated in a manner which respects Aboriginal harvesting rights and the sustainable harvesting limit, if any, of each herd.
- We must anticipate and minimize impacts to caribou herds and their habitat.

*“Young people are getting wiser now and hunting caribou without calves (because of tags).”  
(Paulatuk)*

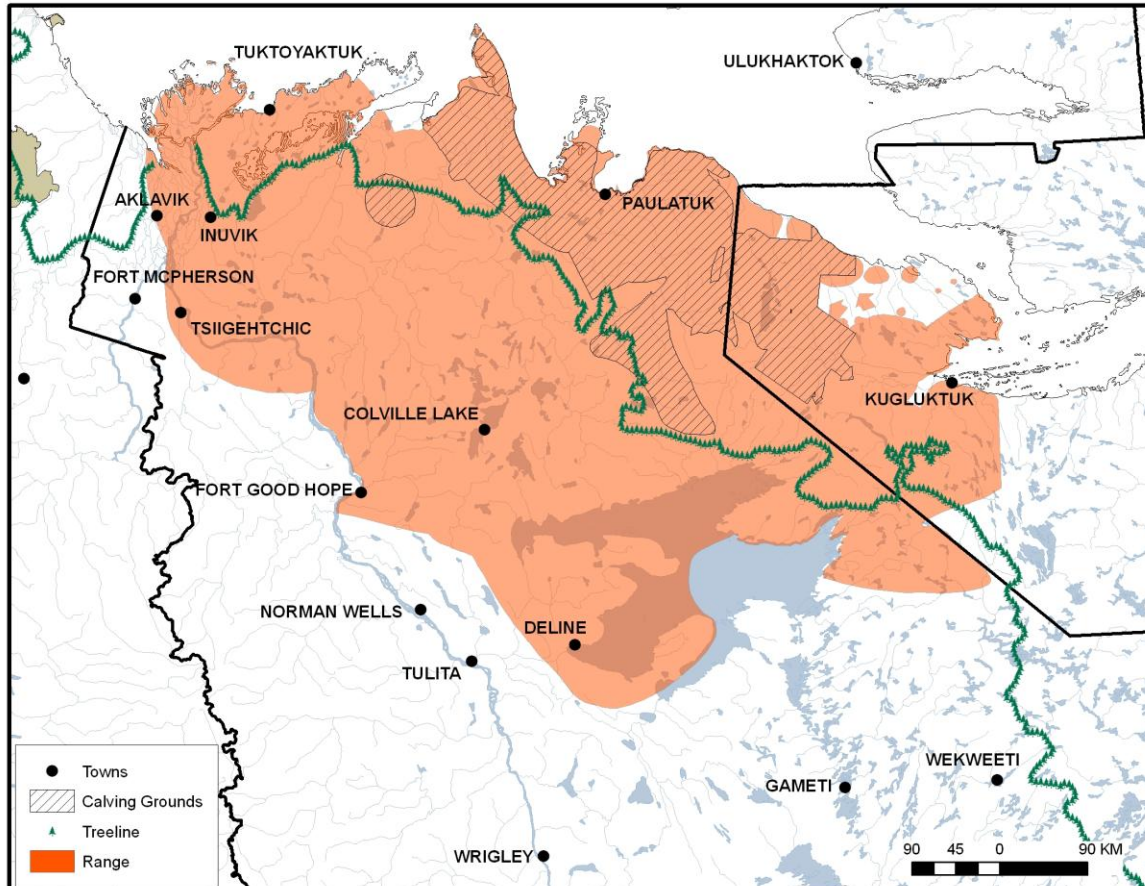
## 5.0 What Caribou Are We Talking About

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The Cape Bathurst, Bluenose-West, and Bluenose-East herds occupy a large part of northern mainland NWT and western Nunavut (**Figure 1**). Each herd has a traditional calving area that is used in June. After calving and post-calving, the herds migrate southward. The Bluenose-West and Bluenose-East herds reach the tree line for the rut in October, while the Cape Bathurst herd winters inland on the tundra.

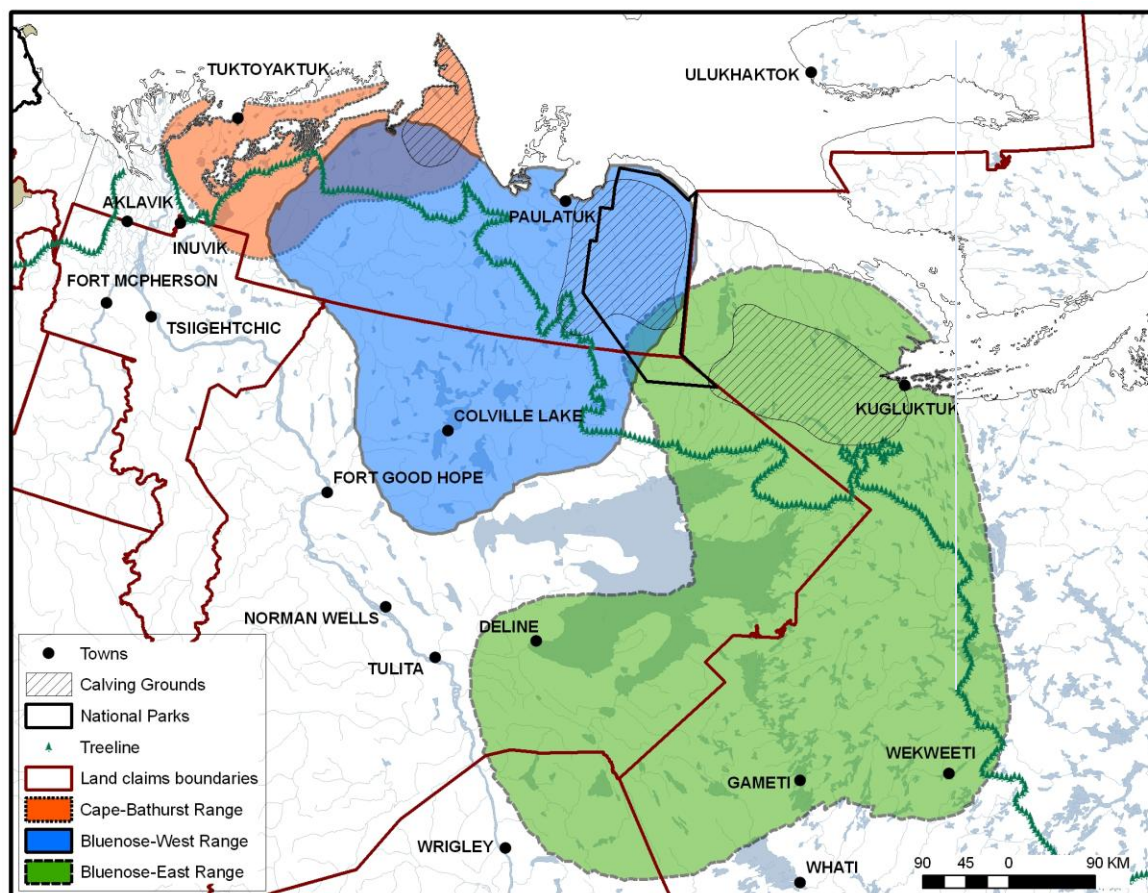
From the 1960s to 1990s the three caribou herds were managed as a single herd – the ‘Bluenose Caribou Herd’ (**Figure 1**). In the mid 1990s, the information from aerial population surveys and satellite collar data showed three different calving areas and two different rutting areas. Scientists also looked at the genetics of the animals by collecting DNA samples from the calving grounds. Results supported the idea of three separate herds within the ‘Bluenose caribou herd’ and that each herd occupies a different annual calving area. As biologists define herds of barren-ground caribou by their separate calving grounds, the ‘Bluenose caribou herd’

was re-named as the Cape Bathurst, Bluenose-West, and Bluenose-East herds. The population size and distribution of herds change over decades because of environmental changes and human activities. The herd ranges shown in **Figure 2** are based on twelve years of tracking radio collared caribou cows within each herd.



**Figure 1** Historic 'Bluenose Caribou Herd' Range (ENR-GNWT)

Although the three herds have distinct calving grounds, their ranges sometimes overlap. Cape Bathurst caribou calve on the Cape Bathurst Peninsula, east of Husky Lakes, and winter in the Tuktoyaktuk Peninsula-Husky Lakes area (**Figure 2**). Bluenose-West caribou calve west of Bluenose Lake in Tuktu Nogait National Park and adjacent areas to the west, but in the Anderson River and Colville Lake area and winter on the Tuktoyaktuk Peninsula and south into the Sahtú Settlement Area (**Figure 2**). The Bluenose-East caribou calve east of Bluenose Lake in the headwaters of the Rae and Richardson rivers, but northeast of Great Bear Lake, and winter north, east, and south of Great Bear Lake (**Figure 2**). Note that there is more detailed information in the companion document – the ENR Technical Herd Status Report.



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**Figure 2** *Overlapping herd ranges, based on collar data from 1996 to 2008*

Seasonal overlap in herd range creates challenges in allocating appropriate harvest levels for each herd.

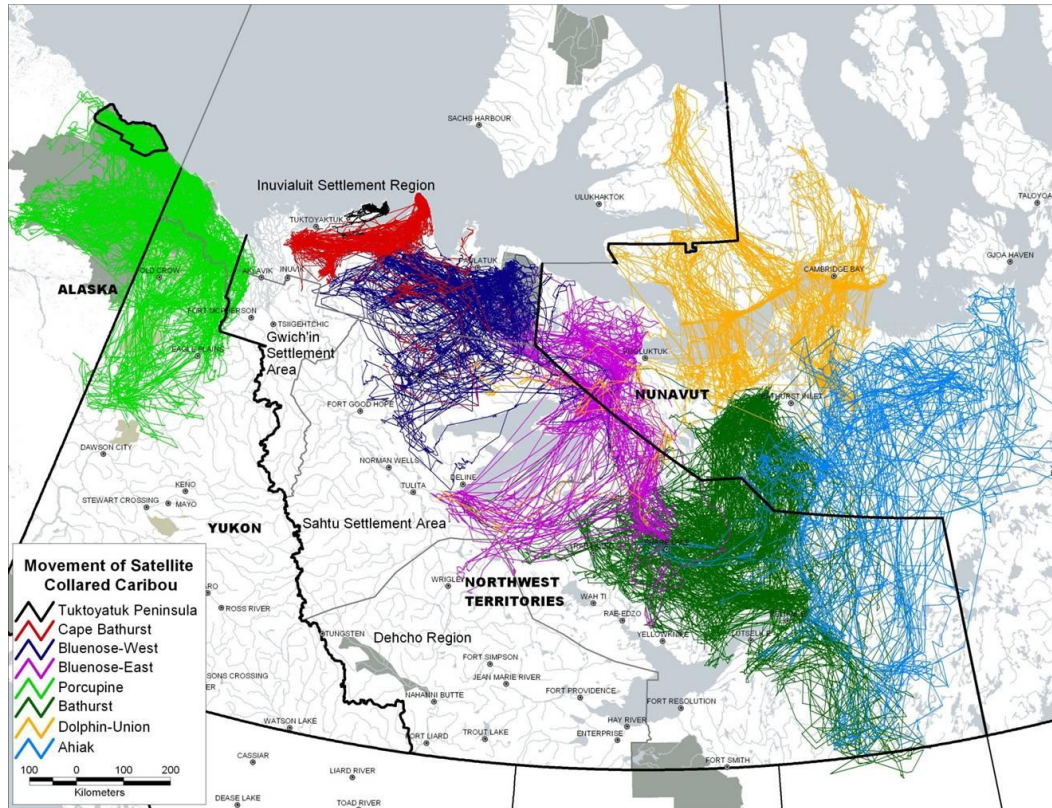
The ranges of the Cape Bathurst, Bluenose-West, and Bluenose-East herds may also overlap at times with those of other caribou herds (**Figure 3**). For example, during some winters, the Bluenose-East herd overlaps with the Bathurst herd. As the overlap between herds can change from year to year, several communities harvest from more than one herd. For example, harvesters from Aklavik generally harvest from the Porcupine caribou herd but they sometimes also harvest from the Cape Bathurst herd. Also, herd ranges include different land

*“In the past, we had choices on which caribou herds to hunt, because they were close by. But nowadays, we have no choices anymore; the herds are no longer close to the Kugluktuk area. The caribou herds are further away, and the migration routes have changed.”  
(Kugluktuk)*

<sup>3</sup> Nagy, John, Deborah Johnson, Nicholas Larter, Mitch Campbell, Andrew Derocher, Allicia Kelly, Mathieu Dumond, Danny Allaire, and Bruno Croft. *In press*. Subpopulation structure of caribou (*Rangifer tarandus* L.) in Arctic and sub-Arctic Canada. *Ecological Applications*. [doi:10.1890/10-1410.1]



owners and wildlife management regimes; all of which requires a coordinated approach to habitat and herd management.



**Figure 3** Range of Barren-Ground Caribou Herds in the Northwest Territories (ENR-GNWT)

A previous co-management plan for the ‘Bluenose caribou herd’ was prepared in 2000. It also had extensive community and co-management board involvement; however, the plan was never fully endorsed or implemented. The previous plan grouped all three herds as the Bluenose herd because there was not yet consensus on distinguishing them as three separate herds and because of many common management concerns.

## 6.0 Who Harvests These Caribou

*“Call all groups together...so we can work together. It need not involve a hundred people but we need to start talking.”*  
(Inuvik)

Historically, there were subsistence, resident, non-resident (i.e., outfitted), and commercial harvests of the three herds. However, after a series of community meetings in 2005/06, WMAC-NWT, the GRRB, and the SRRB recommended harvest restrictions to the Environment and Natural Resources (ENR) Minister. All resident, non-resident, and commercial harvesting stopped in March 2006 in the Inuvialuit Settlement Region (ISR) and October 2006 in the Gwich’in Settlement Area (GSA) and the Sahtú Settlement Area (SSA).

Resident and non-resident hunting last occurred in the Tłı̄chǝ Settlement Area in 2009. The herds harvested by each community are summarized below.

The **Cape Bathurst herd** typically migrates through two settlement areas/regions and is harvested by three communities in the course of its annual cycle (**Figure 2**): Aklavik, Inuvik, and Tuktoyaktuk.

The **Bluenose-West herd** typically migrates through three settlement areas/regions and is harvested by 13 communities (**Figure 2**): Aklavik, Fort McPherson, Tsı̄gehtchic, Inuvik, Tuktoyaktuk, Paulatuk, Colville Lake, Fort Good Hope, Norman Wells, Tulit'a, Délı̄nǝ, Ulukhaktok<sup>4</sup>, and Sachs Harbour<sup>4</sup>.

The **Bluenose-East herd** migrates through four settlement areas/regions in the Northwest Territories and into the eastern portion of the Kitikmeot Region, Nunavut. The herd is harvested by nine communities (**Figure 2**): Wrigley, Norman Wells, Tulit'a, Délı̄nǝ, Whatı̄, Gamèti, Behchokǝ, Paulatuk, and Kugluktuk. This herd may also be harvested by any General Hunting Licence holder from another community who accesses the herd by winter road.

The location and movement of the herds changes over time. Many long term harvesters describe how herds once traditionally available for harvesting now migrate too far from town to access and economically harvest.

## 7.0 How Well Are the Herds Doing

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Aerial surveys from 1992 to 2006 indicated a significant decline in the Cape Bathurst and Bluenose-West herd numbers and the 2009 survey showed the two herds to be stable but still low in relation to historic high numbers. The Bluenose-East herd declined from 2000 to 2006 but the 2010 survey showed the herd appeared to be increasing. Since 2008, recruitment in the three herds has been good (above 30 calves per 100 cows) and health and condition as assessed by harvesters was better in the 2010/2011 season than in the previous three years. For more detailed information on herd status see the companion technical ENR Technical Herd Status Report.

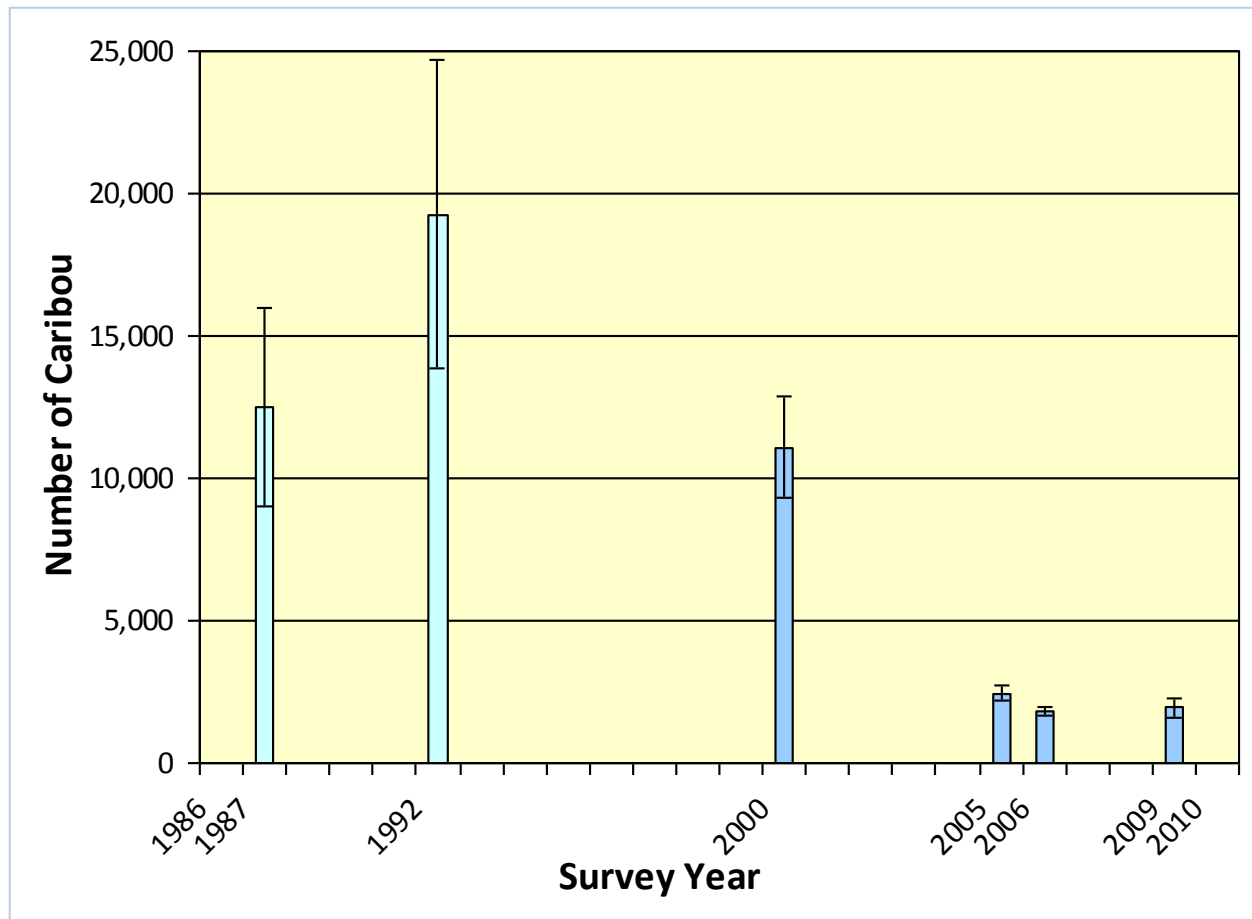
*“When you say the herds are in decline – personally I believe it.”  
(Fort Good Hope)*

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<sup>4</sup> Community harvesters from Ulukhaktok and Sachs Harbour are provided tags and their harvesting occurs on the mainland.

## Cape Bathurst Herd

The **Cape Bathurst herd** population declined from an estimated high of approximately 20,000 animals in 1992 to about 2,000 animals in 2005 and 2006 (**Figure 4**). The 2009 population estimate showed the herd to be stable since 2006 but still low in relation to historic high numbers.

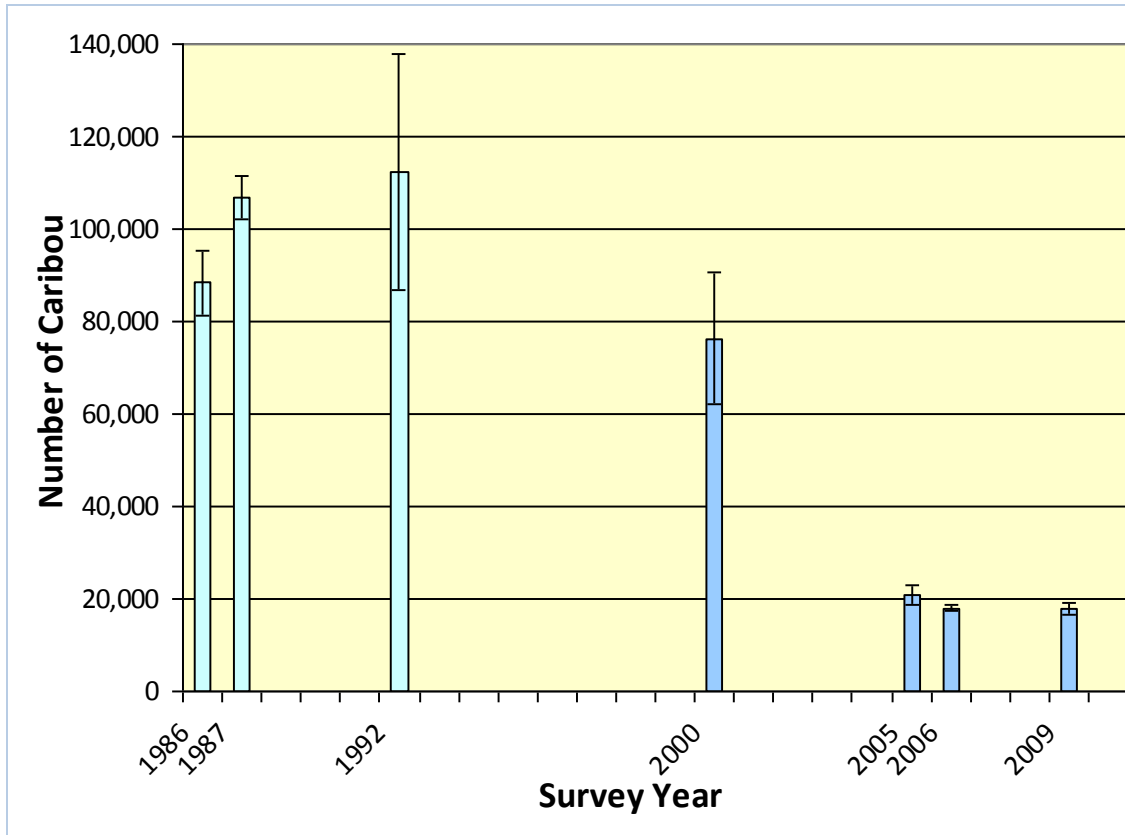


**Figure 4** Cape Bathurst Herd Population Estimates

*Note: There are two shades of colours used for the bars: From 2000 onward herd specific counts have been done; whereas prior to 2000 the 3 herds were surveyed as part of a single "Bluenose Herd"; and that data was later reanalysed and separated into three specific herds.*

## Bluenose-West Herd

The **Bluenose-West herd** population declined from an estimated high of over 110,000 animals in 1992 to about 18,000 animals in 2005 and 2006 (Figure 7-2). The 2009 population estimate showed the herd to be stable since 2006 but still low in relation to historic high numbers.



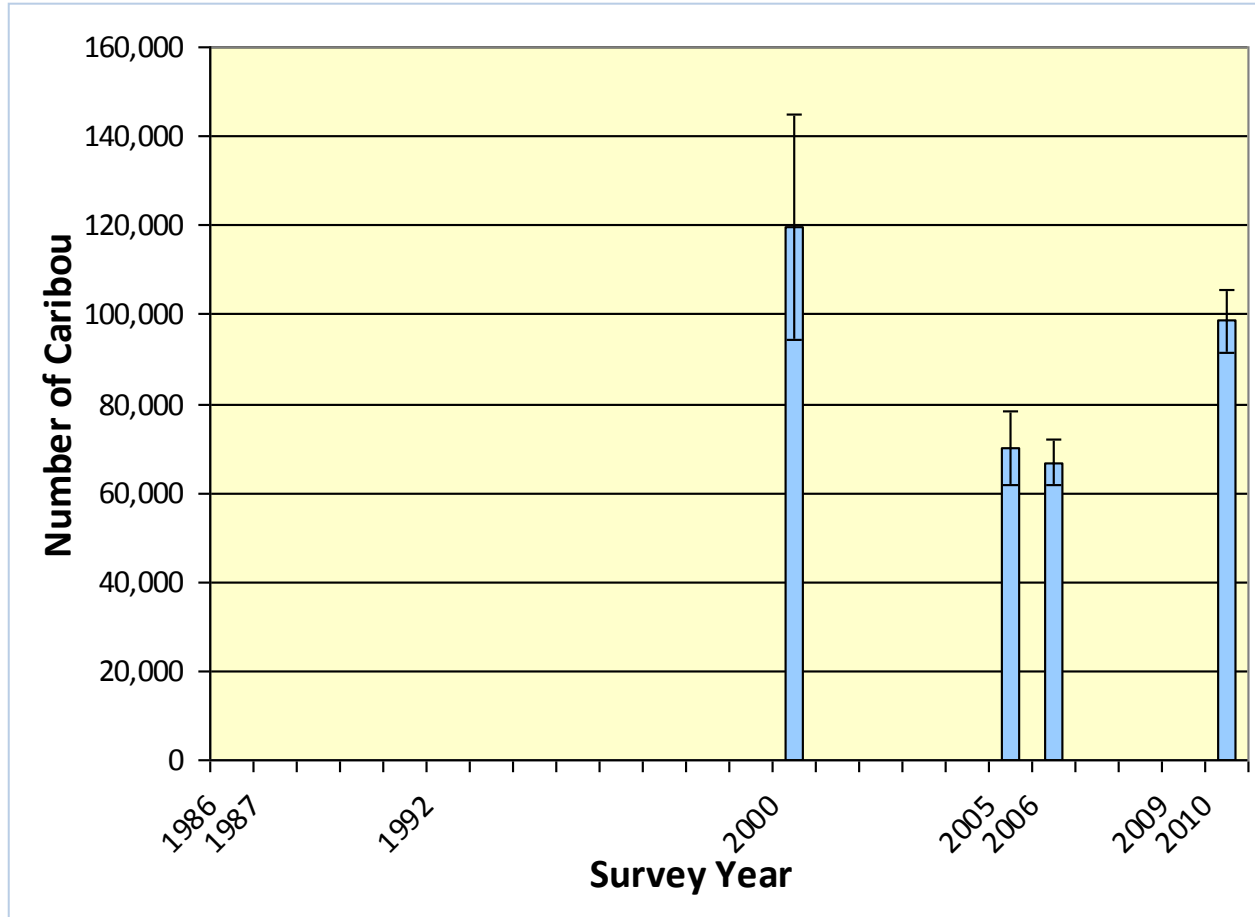
**Figure 5** *Bluenose-West Herd Population Estimates*

*Note: There are two shades of colours used for the bars: From 2000 onward herd specific counts have been done; whereas prior to 2000 the 3 herds were surveyed as part of a single “Bluenose Herd”; and that data was later reanalysed and separated into three specific herds.*



## Bluenose-East Herd

The estimated **Bluenose-East Herd** population varied from over 120,000 animals in 2000 to about 67,000 animals in 2006 and increased to 98,600 animals in 2010 (Figure 7-3).



**Figure 6** *Bluenose-East Herd Population Estimates*

The large changes in population levels observed in these herds are generally consistent with the trends of other barren-ground caribou populations across North America.

*“Caribou have cycles like rabbit and foxes.”*  
(Norman Wells)

There are also some factors which make precise estimates of herd population levels more difficult. For example, communities have suggested that large numbers of animals may be moving from one caribou herd to another. There is little scientific evidence of such “inter-herd movement.” Moreover, when considering the overall number of caribou in the three herds combined, there were very large changes in population levels, with historic lows in 2005 and 2006.

## 8.0 What and How We Monitor

The size of caribou herds vary over several decades, with periods of abundance and periods of scarcity. Monitoring programs collect information about changes in the herd size, and changes in ecological factors that affect caribou numbers and health. It is important to involve both scientists and community harvesters; to include the perspectives of both science and traditional knowledge in monitoring.

The size of a herd and the health of its animals are influenced by factors that can work in combination, such that the total or cumulative impact may be different than that which occurs from each factor on its own. These impacts may be either positive or negative.

### 8.1 Criteria for Assessing Herd Status

The main pieces of information on which management actions will be based include<sup>5</sup>:

1. Population size
2. Recruitment
3. Bull-to-cow ratio
4. Body condition and health
5. Population trend and rate of change

#### 8.1.1 Population Size

The main factor to assess herd status, and the key consideration when recommending the harvest for a herd, is the estimated number of animals in a herd (population size). A “post calving photo survey” is conducted by taking photographs of the herds soon after the calving period. The number of caribou in the photographs is determined and this is used to estimate the total number of adult caribou in the herd. Calves less than 1-year-old are not included in the estimate of population size because of their high death rate experienced over the first year of life.

*“Count caribou when they are migrating at traditional water crossing sites. We need a specific management plan for each area and within these plans we need accurate harvest reporting.”*  
(Tuktoyaktuk)

*“During the fall season, and after the snow has fallen, there are times when it rains, and the snow becomes crusty and the caribou cannot get to the vegetation. Because of this, the herds tend to head south towards the tree line. This is a change that we notice more and more; it rains after it snows and the snow becomes frozen, making it harder for the caribou to get to their food.”*  
(Kugluktuk)

<sup>5</sup> The list of factors, based on scientific knowledge and TEK, was developed and shared by participants during community engagements used to develop this management plan.

### **8.1.2 Recruitment**

Recruitment refers to the number of calves that survive to one-year of age. Calf/cow ratios in spring (as measured by the number of calves per 100 cows) are used as a measure of recruitment. Groups of caribou are located using radio-collars and local knowledge, and the numbers of cows, calves, and bulls are counted.

These ratios, while informative, are often difficult to interpret as they are influenced by changes in cow mortality (death rates) from year to year. Typically, recruitment rates are low before the number of animals in a herd begins to decline, whereas high recruitment rates, particularly several years in a row, may indicate an increase in herd size.

### **8.1.3 Bull-to-Cow Ratio**

Caribou bulls can mate with many females within the same season. The natural death rate for male caribou is higher than that for females, especially when environmental conditions are poor, so even in non-harvested populations there are usually fewer bulls than cows. Monitoring the bull-to-cow ratio helps determine if there are enough bulls to impregnate cows and enough pregnant cows to maintain or increase the herd size. Monitoring can be done by scientists and by harvesters who can provide information on the number of bulls observed in relation to the number of cows.

### **8.1.4 Body Condition and Health**

The health and condition of individual caribou can affect productivity and survival of calves and adults. The Circum Arctic Rangifer Monitoring and Assessment Network (CARMA) has developed protocols for measuring body condition and health of caribou. The least intensive (Level 1) measurements can be easily done. Sample kits are provided to harvesters to measure or collect: pregnancy (presence of foetus), back fat thickness, left kidney with the fat to assess contaminant levels and condition, body condition score, collection of lower front teeth for age determination, and location, date and sex of the animal harvested. It is most useful to collect Level 1 measurements on an annual basis. More intensive measurements (Level 2 or 3 protocols) of body condition and health, including disease and parasites, are often done by scientists and harvesters during a community hunt but on a less frequent basis (every 3 or 5 years).

Community members typically have a holistic look at the condition of caribou through harvesting, field dressing (skinning, gutting, etc.) and preparing or fixing the meat. Body condition information collected by community members, harvesters and scientists provides supporting evidence of health for predicting or confirming changes to the herd size and trend.

### **8.1.5 Population Trend and Rate of Change**

The trend or the rate of increase or decrease is also a key indicator of herd status. Trend can be determined by comparing herd size estimates over many years. When a population estimate is not possible, we can look at other data to help determine the trend, such as recruitment, body condition and health, and bull-cow ratio. Information on the trend of a caribou herd over the long term can be provided by TEK as observations of changes in abundance and distribution, which are often linked. For example, when caribou are at low numbers they often don't occupy all of the same areas as when they are abundant.

Female survival estimates can also help determine the trend and are important in interpreting recruitment and bull-cow ratios. This is discussed in more detail in the ENR Technical Herd Status Report.

## **8.2 Additional Criteria for Assessing Herd Status**

Beyond information on caribou at the individual and herd level, there is important ecosystem-level information that should be considered. This can include level of harvest and predation, habitat quality and quantity, and disturbance levels that may limit the herd's access to parts of its range. Co-management agencies can support long-term research and monitoring of these factors that will allow management actions to be more proactive. These factors are discussed further below.

### **8.2.1 Harvest Levels**

Harvesting has a direct impact on caribou numbers and accurate information of harvest levels is very important for management decisions. Wounding loss (animals that are wounded but not retrieved) is also important, but is very difficult to measure. There are situations where a herd cannot sustain any harvest because of the number and health of the caribou. Most harvesters support establishing (or re-establishing) a harvest monitoring program in each region.

### **8.2.2 Predators**

Predators affect caribou behaviour and mortality. Some predators take caribou only during the calving period (e.g. eagles) and some only during the spring to fall period (e.g. grizzly and black bears). Wolves prey on all age classes of caribou year-round.

Predator numbers decline as herds decline but usually there is a delay of one or two years; or if other prey species are available, predator numbers may not decline at all. When caribou

numbers begin to decrease, the impact of predation may become proportionately greater. This was reported from several of the communities.

Caribou users have frequently requested programs to reduce wolves in their area. They have also requested increased monitoring of predator populations, measurement of predation and the impact of that predation on the herds.

There is much debate about predator control as a caribou management tool. Experience in Alaska, Yukon, NWT and Nunavut in the 1960s, have shown that predator control can be a tool for short term recovery in caribou populations in some situations. However, there is little evidence of wolf control programs being effective over the long term. Predator control as a management tool in the area of these three herds has not been done.

It is suggested that, prior to the design and implementation of any predator management approach, an open, frank discussion of this topic be held among managers, biologists and harvesters. (See the ENR Technical Status Report for more discussion of this subject).

### **8.2.3 Environment and Habitat**

Better understanding of cumulative effects at the ecosystem level can be obtained through long term research on habitat quality and quantity and impacts of human activities. Co-management agencies can continue to call for and support such long-term research and monitoring. With improved understanding there is a better opportunity to use regulatory management tools to limit disturbance on caribou.

Community members have observed changes in the weather and the environment that may have a positive or negative effect on caribou movements and condition. These observations are generally consistent with scientists' predictions of increased variations in temperatures, more rain and snow, and more severe weather events as a result of climate change. During the summer, shifts in temperatures and precipitation can lead to changes (either greater or lesser) in insect harassment of caribou or the timing of "green up". During the winter, variation in temperature or precipitation can affect caribou energy use through changes in access to food or vulnerability to predation. (See also ENR Technical Status Report)

Changes in habitat conditions (e.g. fires on winter range; levels of rain or snowfall; shifts in vegetation composition) can provide insight into the stresses impacting caribou. Long-term protection of key herd habitat will help to ensure that there are "caribou forever".

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*"Habitat – need to look at – caribou manage their habitat – the caribou move to other areas and then move back to that area – we need to include more about habitat."*  
(Tsiigehtchic)

Some steps to assess habitat conditions for each herd are:

1. Define seasonal range use for each herd;
2. Develop and monitor key habitat indicators of quality and quantity using remote sensing and ground surveys;
3. Monitor trends in climate and weather; and
4. Track past and present fire activity.

#### **8.2.4 Human Disturbance**

Disturbance of caribou from human activities such as aircraft overflights, recreational activities, and resource development can influence caribou behaviour and energy use, which in turn can affect condition and health. Indirect effects can also include a reduction in quality and quantity of habitat or access to quality habitat. Particularly when caribou numbers are low, human activities have the potential to alter the rate and extent of the decline or how long it takes the herd to recover.

The range of the three herds extends over lands that are protected from development and lands where exploration and development is occurring. Concern about the impacts of non-renewable resource development grew in the 2000s with a renewed surge in potential developments such as the proposed Mackenzie Gas Project (MGP) natural gas pipeline and associated exploration and development, the proposed Mackenzie Valley Highway extension north of Wrigley, and the Inuvik-Tuktoyaktuk all-weather road. Discovery of diamonds and other valuable minerals in the NWT and Nunavut also led to increased mining activities throughout the herds' range. Land use activities are discussed more in Appendix C.

Multiple sources of disturbance can have a cumulative impact on herd health. Threshold levels of disturbance are known for some species but not for barren ground caribou. Quantifying levels of disturbance to caribou could help establish how disturbance changes over time and how it influences caribou movements and behaviour. Location and levels of disturbances could then be related to habitat availability and accessibility.

The impact of development can be reduced by working closely with developers and with regulatory agencies such as land and water boards and Indian and Northern Affairs Canada (INAC) to avoid low-level flights and reduce operations when caribou are near project sites.

*"We have seen the caribou changing their migration routes from the 1970s. In July caribou are now up in the hills since the summers are colder now and the caribou don't have to hit the beach [inference is that there are fewer bugs bothering the caribou now]. Fall also comes later now and caribou stay longer into the fall and winter."*  
(Paulatuk)

*"One big change we've seen is that now that the oil and gas companies are gone, the caribou have come back closer. When the oil companies were here, there was no caribou close by. They were way up past Aubry Lake."*  
[north of Colville Lake]  
(Colville Lake)

## 9.0 How We Make Decisions

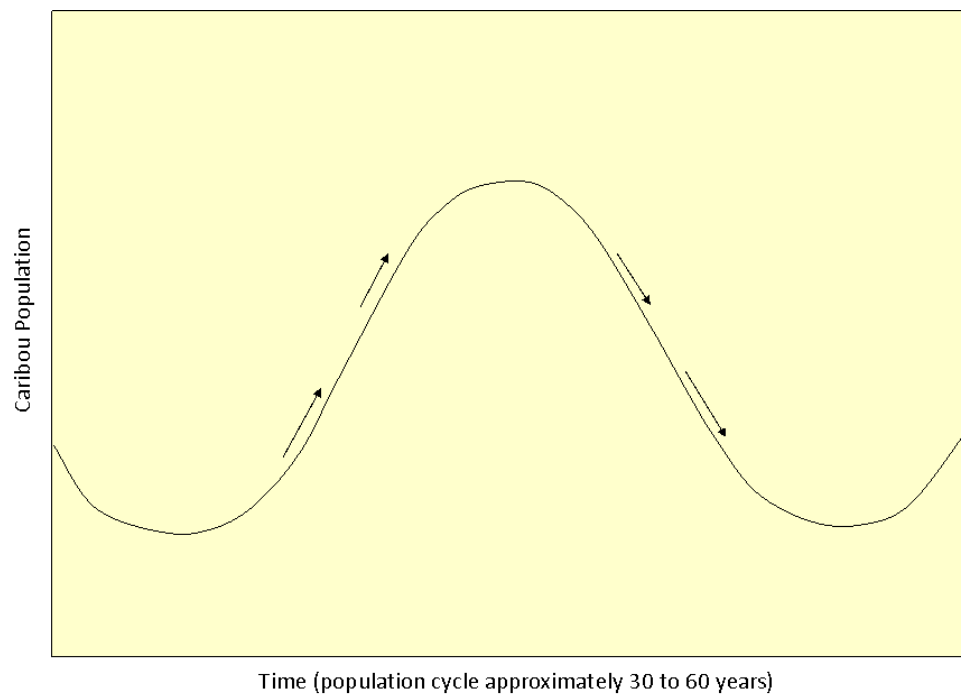
*“It’s a hard issue to think about or deal with. Harvesting caribou is a tradition. I hunt for my family and people in other communities, and share my hunt.”*  
(Kugluktuk)

*“Not sure if it is a natural cycle or other reasons but I guess our job is to try to manage the best we can.”*  
(Tsiigehtchic)

### 9.1 How Herd Numbers Change Over Time

Understanding changes in caribou populations can be difficult. However, traditional and scientific knowledge agree that caribou herd numbers generally fluctuate over decades – what we call a population cycle. The length of the phases varies, particularly the length of time that a population stays at a low level. Scientific evidence, the journals of missionaries and trading post managers, and TEK all suggest that barren-ground caribou populations go through cycles 30-60 years long.

The cycle itself is not ‘neat and tidy’, nor is the cycle the same each time. The causes for these population cycles in caribou are not well understood, but likely result from several factors such as habitat quality and quantity, predator populations, climate and disease. Different management actions may be called for - depending on the phase of the cycle. **Figure 8** is a simple, generalized representation of a long-term population cycle.







**Figure 7** *Simplified curve of caribou abundance over time*



## 9.2 When Do We Take Action

The things we do to help the caribou herds will be determined in part by the herd size, and whether it is increasing or decreasing. Management decisions will also be influenced by other information from harvesters and scientists such as recruitment, bull-to-cow ratio, body condition and health.

In this management plan there are four levels of herd status and associated management actions. These are colour-coded green, yellow, orange, and red. The herd status provides a trigger for specific management actions.

	<b>Green:</b>	The population level is high
	<b>Yellow:</b>	The population level is increasing
	<b>Orange:</b>	The population level is decreasing
	<b>Red:</b>	The population level is low

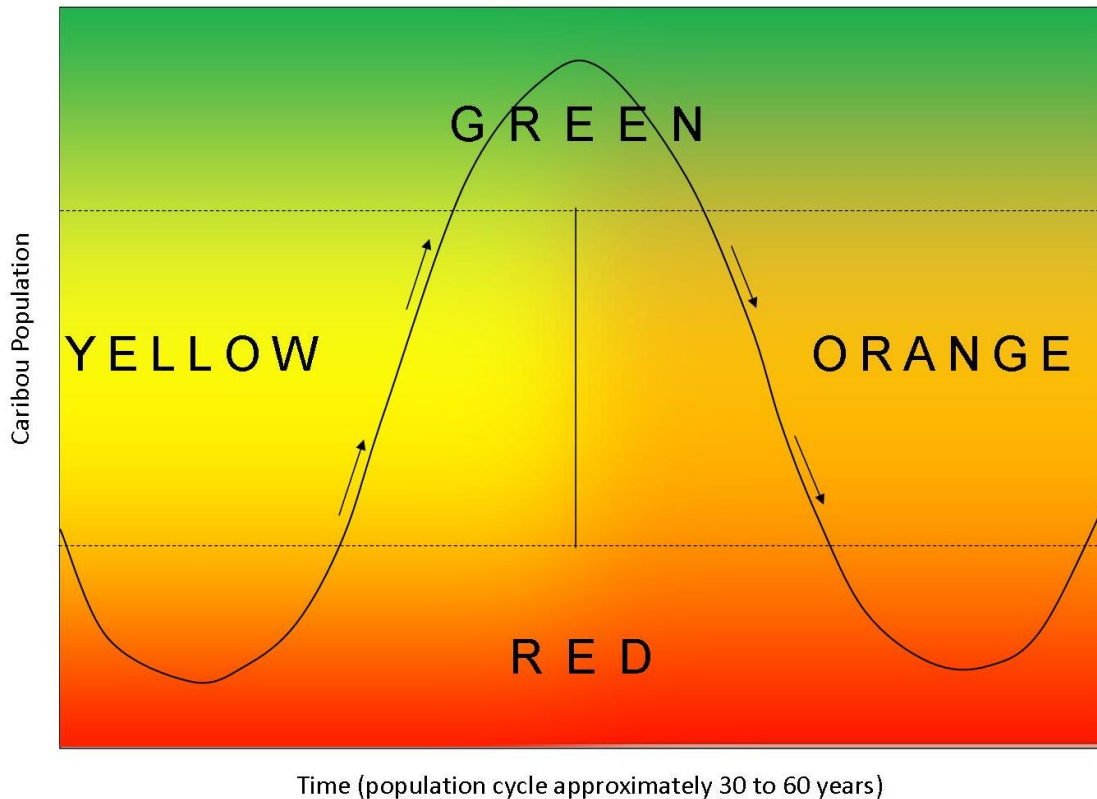
Thresholds for management actions were determined with input from community and technical experts and are presented in **Table 1** below. Slight differences in threshold percentages between herds reflect the results from community engagements.

As an example, the Cape Bathurst caribou herd is considered to pass the threshold into low population (red) when the herd is estimated as being below 4,000 animals or 21% of the historical maximum level of 19,000 animals. It is considered to pass the threshold into high population (green) when the herd is above 12,000 animals or 63% of the historic high as measured by surveys. The maximum levels for each of the three herds, and the change over time, are shown in Figures 4, 5 and 6 of this report and described in more detail in the ENR Technical Herd Status Report.

**Table 1** *Thresholds for the Status of the Cape Bathurst, Bluenose-West, and Bluenose-East Caribou Herds.*

HERD	Historic High As measured by surveys	Threshold Between green & yellow/orange	Threshold Between red & yellow/orange
<b>Cape Bathurst Herd</b>	19,000	12,000	4,000
<b>Bluenose West Herd</b>	112,000	60,000	15,000
<b>Bluenose East Herd</b>	120,000	60,000	20,000

A representation of these thresholds is provided with colours in **Figure 8**.



**Figure 8** *Caribou Population Status as Colour Zones*

### 9.3 **How We Use Herd Monitoring Information to Make Decisions**

Accurate and timely information is necessary for making good decisions that will help the caribou herds. Because the herds are shared between communities and regions, it is also important that information is collected and shared by all harvesters and managers.

Herd status (e.g. green, yellow, orange or red) will be determined based on information including:

- Estimate of the overall size of the herd
- Previous estimates to provide a trend (increasing, decreasing, or stable)
- Additional monitoring indicators (as in **Table 2** below) to supplement the interpretation.

Members of the ACCWM may also use other scientific information as described in the ENR Technical Herd Status Report to help them interpret the monitoring information and determine herd status.

It is important to have up-to-date information, and so the frequency of research and monitoring effort is very important. Certain monitoring will take place regardless of whether the herd status is green, yellow, orange or red. However, the frequency and intensity of monitoring will vary in response to herd status. The monitoring information, frequency, and means of collecting that information are listed in **Table 2 Herd Monitoring Summary**.

**Table 2 Herd Monitoring Summary**

Information	Community-Based	How often	Scientific <sup>6</sup>	How often
Estimated herd population size	High, medium, low, critical	Throughout the year	High (green) Medium (yellow/orange) Low (red)	Every 3 years when in red and orange; every 3-4 years in yellow; and every 4-5 years in green
Estimated recruitment	Observations: many or few calves	In summer, fall, and winter	Number of calves per 100 cows	Annually, every winter
bull-to-cow ratio	Observations: many or few bulls (and bull health)	Throughout the year	Number of bulls per 100 cows	Every 3 years
Body condition and health	Observations: good, fair, poor, abnormal	Throughout the year, especially during harvest	Fat indexes, pregnancy rate, parasite and disease level	Basic level 1 annually; More intensive level 2 or 3 every 5 years
population trend <sup>7</sup>	Observations: increasing, stable, decreasing	Throughout the year	Increasing, stable, decreasing	Annually
Comprehensive harvest data	Harvest interviews	Monthly during harvest season	Using community harvest data, calculate total and sex ratio of the harvest	Annually
Predator populations <sup>7</sup>	Observations: high, medium, low	Throughout the year	Carcass collection (reproduction, health, etc.)	Every year when in red and orange, every 5 years in green and yellow

<sup>6</sup> More information on scientific indices and their interpretation is available in the ENR Technical Herds Status Report

<sup>7</sup> There is no single indicator for population trend. Rather, it is based on monitoring of population levels, recruitment, body condition, etc.

Habitat and environment <sup>8</sup>	Observations of food quality and availability, extent of burns, weather, snow depth, etc.	Throughout the year	Track seasonal range use, fire, monitor changes in plant productivity, green-up, climate, etc.	Annually to establish baseline and then TBD thereafter
Disturbance levels <sup>7</sup>	Observations: high, medium, low	Throughout the year	Track land uses and disturbance levels	Annually and then TBD thereafter

Long-term monitoring of environmental factors, including range quality and quantity, development activity and trends, and disturbances that influence caribou herds are important in understanding changes in caribou health and abundance.

Some of these indicators of population status can be difficult or expensive to measure. In these cases there may be some information available through long-term research programs or TEK. All of this information will be considered by management agencies and harvesters.

### **9.4 What Management Actions Can We Take**

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

#### **9.4.1 Harvest**

The ACCWM can make recommendations with respect to limits on harvest as established through land claim agreements, with non-commercial harvesting having priority over commercial harvesting. With respect to non-commercial harvesting, Land Claim beneficiaries and Aboriginal people have a priority right to harvest over NWT residents who in turn have priority over non-residents. In Nunavut, as per the Nunavut Land Claims Agreement, when a Total Allowable Harvest is established for a population, a basic needs level is to be established, which constitutes the first demand on harvesting.

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<sup>8</sup> There is a need for further research and discussion about how these factors, such as predator levels, can affect these three caribou herd populations

The ACCWM can also make recommendations on harvest composition (e.g. bulls vs. cows) or seasonal restrictions on harvest, and it can recommend programs to encourage residents to harvest alternative species and increase trade and barter of traditional foods. Finally, the ACCWM can make recommendations on things like consideration of community monitors and the design and nature of harvesting studies.

#### **9.4.2 Land Use Activities**

The ACCWM can provide recommendations to regulators (i.e. Land Use Planning, Environmental Assessment and Land and Water Boards) to help reduce the effects of exploration and development on caribou herds. Advice can be given to avoid important caribou seasonal ranges like calving grounds, and how to mitigate disturbance from noise and access. For example, based on the recommendations of the Tuktut Nogait National Park (TNNP) Management Board and the community of Paulatuk, aircraft access to TNNP has been restricted during the calving and post-calving period to reduce potential disturbance to the Bluenose-West herd.

#### **9.4.3 Predators**

The ACCWM can recommend increased research on predators, including distribution and abundance and the impact of predation on caribou herds. It can also recommend means of predator control including incentives for harvest of predators.

#### **9.4.4 Communication and Education**

Members of the ACCWM can work together and with government to provide active and accessible communication programs, and recommend education programs. This can include different programs and approaches for elders, harvesters and youth to encourage traditional harvesting practices, use of alternate species and increased trade and barter of traditional foods. It can also include work with members of industry including resource developers and aircraft charter companies.

#### **9.4.5 Habitat**

The ACCWM can recommend increased research and monitoring related to seasonal range use, key habitat indicators, or trends in climate and weather. It can also recommend important habitat as a “value at risk” for forest fire management.

*“How are you going to protect them? Much of the Tłı̄chǫ has been burned... we can suggest making caribou habitat a high value-at-risk so if a fire comes by, ENR can protect it.”  
(Behchokò)*

## 9.5 Management Actions Based on Herd Status

The type of management action and the degree of management intervention will vary depending on the status of the herd. There are four levels of herd status which are colour-coded green, yellow, orange, and red. The herd status will trigger specific management actions or a change in the frequency of action, as described below:

**Green:** The population level is high

Management actions include:

- Support harvest by beneficiaries of a Land Claim and members of an Aboriginal people, with rights to harvest wildlife in the Region.
- Recommend that subsistence needs are met and resident harvest should be permitted (with limits if established).
- Potentially recommend non-resident (outfitter) and commercial harvests.
- Provide standard advice on mitigation of the impacts of exploration and development activities to proponents and regulators.
- Provide active and accessible communication, and recommend education programs for all.

**Yellow:** The population level is increasing

Management actions include:

- Recommend easing limits on both subsistence and resident harvests.
- At higher levels of yellow, consider recommending outfitter and commercial harvests.
- Provide standard advice on mitigation of industrial impacts to proponents and regulators.
- Provide active and accessible communication and recommend education programs for all.

**Orange:** The population level is decreasing

Management actions include:

- Recommend a mandatory limit on subsistence harvest based on a TAH accepted by the ACCWM.
- Recommend no resident, outfitter or commercial harvest.
- Recommend a majority-bulls harvest.
- Recommend harvest of alternate species and encourage increased trade and barter of traditional foods.

- Consider recommending options for predator management.
- Recommend important habitat as a “value at risk” for forest fire management.
- Recommend increased enforcement including community monitors.
- Provide standard advice on mitigation of industrial impacts to proponents and regulators.
- Provide active and accessible communication and recommend education programs for all including developers and airlines, and consideration of community monitors.

 **Red:** The population level is low

Management Actions include:

- Review of mandatory limit for subsistence harvest for further reduction.
- Resident, commercial, or outfitter harvest remain closed.
- Work directly with proponents and regulators of exploration and development activities to advise on mitigation measures.
- Recommend harvest of alternate species and meat replacement programs, and encourage increased trade and barter of traditional foods.
- Consider recommending options for predator management.
- Recommend important habitat as a “value at risk” for forest fire management.
- Recommend increased enforcement including increased use of community monitors.
- Provide active and accessible communication and recommend education programs for all including developers and airlines, and consider increased use of community monitors.

*“When we are in the low part of the population, is there any way we can enforce what is being suggested? If people don’t do what they are supposed to do, we should fine them....”*  
(Fort MacPherson)

*“When it is in that zone [red], maybe harvesting could go to another herd that is stronger and leave these ones alone”*



## **9.6 Process to Make Decisions**

The following is a summary of the guiding documents, process and schedule to be followed by the ACCWM to determine herd status and management actions.

### **9.6.1 Guiding Documents: Action Plan**

This Management Plan is supported by an Action Plan which outlines the management actions to be taken and how they will be implemented. The ACCWM is responsible for determining herd status and developing and reviewing the Action Plan following each post-calving photo survey (at three-five year intervals, depending on the population phase of the herd). Based in large part on the herd status, the Action Plan will outline specific management actions and how they will be implemented, by whom, and within what timeframe. Funding for the management action will be discussed by the ACCWM with other management partners. A third document, the ENR Technical Herds Status Report, may assist the ACCWM in making its decisions.

Implementation of the Action Plan is cooperative, and ongoing community input and support will help to develop and implement management actions. Each wildlife co-management board will be responsible for approving the Action Plan for its implementation. The effectiveness of the Action Plan will be reviewed annually.

### **9.6.2 ACCWM Meetings**

The ACCWM meets annually (normally in early fall) to review all new information and implementation of the Action Plan. It will be presented with the best available scientific and traditional knowledge and community monitoring information. The Action Plan will be reviewed, and possibly updated, at the same time that the ACCWM determines herd status.

Although normally revised only following a post calving photographic survey, the herd status or Action Plan may be revised more frequently if, for example, there has been some unanticipated and extreme change since the most recent post calving photo survey.

### **9.6.3 Allocation of Harvest**

If a Total Allowable Harvest (TAH) is recommended, the allocation for each settlement region/area will be determined collaboratively among the responsible co-management boards, based on historical harvest levels.

Formal harvest studies are available for the Inuvialuit, Gwich'in, Sahtú, Tłı̨chǫ, and Nunavut settlement areas. Groups without formal harvest studies will need to find a way to determine

past harvest levels. Individual boards, in association with the ACCWM, will determine how far back to go in order to determine “historical harvest levels.”

*“Education is important – always say at meetings we have to educate our harvesters how to hunt caribou – we need to do that.”*  
(Aklavik)

*“Good communications are important. Use radio stations. Bring translators to the meetings for elders.”*  
(Fort McPherson)

## **10.0 How We Communicate**

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Communication is the responsibility of all parties engaged in wildlife management. Knowledge itself is dynamic and powerful and information must flow both ways - between local knowledge holders and management agencies.

There are many communication and education techniques which will be used depending on the message and the intended audience. They may include local radio programs; visits to schools; posters or presentations; briefing of developers and airlines; and on-the-land gatherings. They will occur on an annual basis and not just when the herds are in the Orange or Red zones. However, conservation and education will be particularly emphasized during times of low or decreasing caribou herds. Further details on timing and communication methods will be provided in the Action Plan.

The kind of information communicated will include the colour-coded herd status; any voluntary or management limits on harvesting; what is being monitored and why; the results of the monitoring programs; why harvesting mostly bulls rather than cows may be preferable; and education of youth in traditional hunting and butchering practices.

## **11.0 HOW WE UPDATE THE MANAGEMENT PLAN**

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The Plan for the Cape Bathurst, Bluenose-West, and Bluenose-East barren-ground caribou herds will first be reviewed after five years (i.e. 2016) and at ten-year intervals thereafter. Any party may request a review, at any time, through a formal request to the ACCWM.

## 12.0 SIGNATORIES TO THE PLAN

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Below are the members of the ACCWM and signatories to *Taking Care of Caribou: The Cape Bathurst, Bluenose-West and Bluenose-East Barren Ground Caribou Herds Management Plan*. In recognition of the importance of the Bluenose Caribou Herds and their habitat, the decision of one Party not to accept the management plan will not preclude the remaining Parties from continuing with development and implementation of the plan.



**Wildlife Management Advisory Council –NWT (WMAc-NWT)**



**Gwich'in Renewable Resources Board (GRRB)**



**Sahtú Renewable Resources Board (SRRB)**



**Wek'èezhii Renewable Resources Board (WRRB)**



**Kitikmeot Regional Wildlife Board (KRWB)**

**Tuktut Nogait National Park Management Board (TNNPMB)**



**Nunavut Wildlife Management Board (NWMB)**

## APPENDICES

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## APPENDIX A

### ACRONYMS AND TERMS USED IN THIS PLAN

#### List of Acronyms

ACCWM	Advisory Committee for Cooperation on Wildlife Management
ENR	Department of Environment and Natural Resources, GNWT
GLUPB	Gwich'in Land Use Planning Board
GN	Government of Nunavut
GNWT	Government of the Northwest Territories
GRRB	Gwich'in Renewable Resources Board
GSA	Gwich'in Settlement Area
GTC	Gwich'in Tribal Council
HTO	Hunters and Trappers' Organization
IGC	Inuvialuit Game Council
INAC	Indian and Northern Affairs Canada
ISR	Inuvialuit Settlement Region
KRWB	Kitikmeot Regional Wildlife Board
NLCA	Nunavut Land Claims Agreement
NPC	Nunavut Planning Commission
NWT	Northwest Territories
NWMB	Nunavut Wildlife Management Board
SLUPB	Sahtú Land Use Planning Board
SRRB	Sahtú Renewable Resource Board
SSA	Sahtú Settlement Area
TAH	Total Allowable Harvest
TNNPMB	Tuktut Nogait National Park Management Board
TSA	Tłıchǫ Settlement Area
WRRB	Wek'èezhì Renewable Resource Board
WMAC	Wildlife Management Advisory Council (NWT)

## APPENDIX B

### MANDATE AND WEBSITES OF MANAGEMENT AGENCIES

The many organizations which share responsibility for managing the herds include:

#### ***Wildlife Management Advisory Council (NWT)***

The Wildlife Management Advisory Council (WMAC) provides advice to the relevant Ministers, ENR and the Inuvialuit Game Council (IGC) on all significant wildlife matters in the Inuvialuit Settlement Region (ISR) including management policies, regulations and harvesting quotas.

Wildlife Management Advisory Council (NWT): [www.jointsecretariat.ca](http://www.jointsecretariat.ca)

#### ***Gwich'in Renewable Resources Board***

The Gwich'in Renewable Resource Board (GRRB) is considered to be the main instrument of wildlife and forestry management within the Gwich'in Settlement Area (GSA). It is responsible for establishing harvest levels, approving management plans, approving regulations proposed by government and reviewing any wildlife management matter referred to it by government. GRRB decisions are referred to the appropriate Minister who may accept, vary or set aside the decision, with reasons.

Gwich'in Renewable Resources Board: [www.grrb.nt.ca](http://www.grrb.nt.ca)

#### ***Sahtú Renewable Resources Board***

The Sahtú Renewable Resource Board (SRRB) is considered to be the main instrument of wildlife and forestry management within the Sahtú Settlement Area (SSA). It is responsible for establishing harvest levels, approving management plans, approving regulations proposed by government and reviewing any wildlife management matter referred to it by government. SRRB decisions are referred to the appropriate Minister who may accept, vary or set aside the decision, with reasons.

Sahtú Renewable Resources Board: [www.srrb.nt.ca](http://www.srrb.nt.ca)

#### ***Wek'èezhìi Renewable Resources Board***


The Wek'èezhìi Renewable Resource Board (WRRB) is the wildlife co-management authority for the Tłı̄chǫ Settlement Area (TSA). It is responsible for approving harvest levels, management plans, research plans, and any other wildlife management matter referred to it by government. WRRB decisions are referred to the appropriate government which may accept, vary or set aside the decision, with reasons.

Wek'èezhìi Renewable Resources Board: [www.wrrb.ca](http://www.wrrb.ca)



### ***Nunavut Wildlife Management Board***

The Nunavut Wildlife Management Board (NWMB) is the main instrument of wildlife management in Nunavut (NLCA, s.5.2.33). The NWMB is responsible for establishing Total Allowable Harvests and Basic Needs Levels; participating in research; establishing, modifying or removing non-quota limitations (e.g. sex or age specific harvests); approving the establishment, disestablishment, and changes to boundaries of conservation areas related to the protection of wildlife and wildlife habitat; and other duties assigned to it though the Nunavut Land Claims Agreement (refer to NLCA s. 5.2.33, 5.2.34). NWMB decisions are required to be submitted to the appropriate Minister and follow processes and requirements outlined in Part 3 of Article 5 of the NLCA.

Nunavut Wildlife Management Board: [www.wmb.com](http://www.wmb.com) 

### ***Kitikmeot Regional Wildlife Board***

The Kitikmeot Regional Wildlife Board (KRRB) is a Regional Wildlife Organization (RWO) under the Nunavut Land Claims Agreement (NLCA). As such, the KRRB is responsible for the allocation and enforcement of the regional BNL among the HTOs in the Region and the regulation of harvesting practices among the members of the HTOs.

Kitikmeot Regional Wildlife Board: [www.niws.ca](http://www.niws.ca)

### ***Tuktut Nogait National Park Management Board***

The Tuktut Nogait National Park Management Board (TNNPMB) is responsible, subject to the jurisdiction of the co-management boards within the ISR, for advising the Minister, or other ministers as appropriate, on all aspects of park planning, operation and management, and research.

Tuktut Nogait National Park Management Board: [www.pc.gc.ca/eng/pn-np/nt/tuktutnogait](http://www.pc.gc.ca/eng/pn-np/nt/tuktutnogait)

### ***Parks Canada Agency***

Parks Canada Agency protects and presents Tuktut Nogait National Park and the Saoyú-Ædacho National Historic Site to ensure the ecological and commemorative integrity of these places for present and future generations. Tuktut Nogait National Park was established to protect and maintain the Bluenose-West caribou herd and its calving and post-calving habitat. Parks Canada Agency works cooperatively with co-management boards and the GNWT to manage and monitor the herd and its habitat in the Park and in the greater Park ecosystem.

Parks Canada: [www.pc.gc.ca/eng/pn-np/nt/tuktutnogait](http://www.pc.gc.ca/eng/pn-np/nt/tuktutnogait)

### ***Government of the Northwest Territories***

The Department of Environment and Natural Resources (ENR) has ultimate responsibility for the management of caribou under the GNWT *Wildlife Act*. The Minister is empowered to establish harvest seasons, quotas and other conditions that may be required for the conservation of caribou within NWT.

Environment and Natural Resources, Government of Northwest Territories:

[www.enr.gov.nt.ca](http://www.enr.gov.nt.ca)

### ***Government of Nunavut***

The Department of Environment (DoE) has ultimate responsibility for the management of caribou under the GN *Wildlife Act*. The Minister is empowered to set harvest seasons, quotas and other conditions that may be required for the conservation of caribou within Nunavut.

Department of Environment, Government of Nunavut: [www.gov.nu.ca/env](http://www.gov.nu.ca/env)

### ***Kugluktuk Angoniatit Association Hunters and Trappers Organization***

The objects of the Association are to constitute an open and accountable forum, organized in a fair and democratic way, to protect and promote the rights and interests of those Inuit in the Kugluktuk area who are involved in hunting and trapping.

Email address: [kugluktukhto@qiniq.com](mailto:kugluktukhto@qiniq.com)

## APPENDIX C

### MAJOR LAND USE ACTIVITIES IN THE RANGE OF THE CAPE BATHURST, BLUENOSE-WEST, AND BLUENOSE-EAST CARIBOU HERDS

#### ***Hydrocarbon Exploration and Development***

The proposed Mackenzie Gas Project (MGP) represents a renewed attempt to bring the natural gas from the Beaufort Delta into production. The National Energy Board (NEB) approved the project in 2010. Gas would initially come from three gas fields in the Mackenzie Delta but construction of the pipeline would likely lead to enhanced exploration and development activities throughout the Mackenzie Delta and other areas of the Mackenzie Valley, particularly the Tuli'tá-Norman Wells area and the Colville Lake area. The Mackenzie Delta and surrounding area includes a significant portion of the ranges of Cape Bathurst and Bluenose-West herds, whereas all three herds occur in the Colville Lake area. Herds are not normally in the Tuli'tá-Norman Wells area.

#### ***Mineral Exploration and Development***

Mineral exploration and development waxes and wanes in response to the global demand. It can change quickly - as seen with the staking rush following the first discovery of diamonds in the NWT or recent interest in rare earths. The presence of base metals and diamonds has been confirmed but projects are still in the planning and surveying stage. Much of the caribou range is subject to mineral claims or prospecting permits. However, the extent of claims and permits is not a true reflection of land use as the activities are often concentrated in a small part of the overall claim area. The cumulative impact of these land use activities is unknown.

#### ***Transportation Route Development***

The Bathurst Inlet Port and Road, proposed in the 1990's, was put on hold in 2008. If the development were approved, it would shorten the shipping routes to remote mines in the Tłı̄chǵ and Kitikmeot Region by creating a deep-water port and all-weather roads. Other proposed road developments include an all-season road from Tuktoyaktuk to Inuvik, and an 804 km extension of the Mackenzie Valley Highway north from Wrigley.

### ***Land Use Plans***

The IFA does not provide for a Land Use Planning Board to develop a plan for the Region. However, the WMAC (NWT) produced community conservation plans for the ISR in 2000 and will release updated plans soon. These plans reflect community concerns and expectations about the acceptable level of impacts on various landscapes.

The Gwich'in, Sahtú and Nunavut agreements provide for land use planning which is undertaken by claim-specific Institutions of Public Government (IPG). In these instances, the land use plans may declare zones in the settlement lands for various purposes. This can include restrictions on land use activities and land management agencies must respect the conditions established through the land use plans.

The Gwich'in Land Use Plan was approved by the Gwich'in Tribal Council (GTC) and the Federal Government in 2003. The plan classified the Gwich'in Settlement Area (GSA) into three zones: General Use Zones (57% of GSA), Special Management Zones (33% of GSA), and Conservation Zones which includes Heritage Conservation Zones (10% of GSA). All licenses, permits or other authorizations relating to the use of land and water must conform to the Land Use Plan. A review of the Gwich'in Land Use Plan is under way.

The Sahtú Land Use Planning Board is preparing a comprehensive land use plan for the SSA that will guide how the land and its resources will be used. It will designate three categories of land: conservations zones where no development will be permitted; special management zones where development will be permitted with conditions; and multiple use zones where development will be permitted subject to current regulatory requirements. The second draft of the plan was submitted in 2010.

The Tłı̨chǫ Agreement does not provide for formal land use planning for the settlement area but in 2010 the Tłı̨chǫ government was developing a land use plan for Tłı̨chǫ lands.

### ***Protected Areas***

Herd ranges encompass established and proposed protected areas. Tukturnogait National Park protects calving and post-calving habitat of the Bluenose-West herd in the ISR and SSA. Discussions of a new park in Nunavut adjacent to Tukturnogait are ongoing with Kugluktuk, Kitikmeot Inuit Association, and the Nunavut Planning Commission.

Edaǰǰla is a prominent peninsula on the east shore of Great Bear Lake which is an important area culturally and for the Bluenose-East caribou. Edaǰǰla has been proposed for formal protection by the Délı̨ne Land Corporation, and is identified as a conservation zone in the draft Sahtú Land Use Plan. Saoyú-?ehdacho National Historic Site of Canada

protects the two westernmost peninsulas on Great Bear Lake. The land is co-managed by the Eḏáǰǰá Cooperative Management Board and Parks Canada.

Ezḡdziti is an area protected through the Tłjchḡ Final Agreement for its historical and cultural importance. The area, which encompasses approximately 1,374 km<sup>2</sup> of settlement land, is protected from non-renewable resource development.

## **APPENDIX D**

### **ADVISORY COMMITTEE FOR COOPERATION ON WILDLIFE MANAGEMENT (ACCWM) AND BLUENOSE CARIBOU MANAGEMENT PLAN WORKING GROUP (BCMPWG) MEMBERSHIP**

The ACCWM consists of the Chairpersons (and/or their alternates) of:

- Wildlife Management Advisory Council (NWT);
- Gwich'in Renewable Resources Board;
- Sahtú Renewable Resources Board;
- Wek'èezhìi Renewable Resources Board;
- Kitikmeot Regional Wildlife Board;
- Tuktut Nogait National Park Management Board; and
- Nunavut Wildlife Management Board.

The BCMPWG consists of representative of:

- Wildlife Management Advisory Council (NWT);
- Gwich'in Renewable Resources Board;
- Sahtú Renewable Resources Board;
- Wek'èezhìi Renewable Resources Board;
- Kitikmeot Regional Wildlife Board;
- Kugluktuk Hunters and Trappers Association;
- Dehcho First Nation;
- Tuktut Nogait National Park Management Board;
- Tłı̨chǫ Government;
- Environment and Natural Resources, GNWT;
- Department of the Environment, GN; and
- Parks Canada.

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