

Rules for Definition of the Mobile Core Bathurst Caribou Management Zone

ENR, TG and WRRB, revised June 23, 2023

1. Background:

The Mobile Core Bathurst Caribou Management Zone (formerly the Mobile Core Bathurst Caribou Conservation Area; hereafter referred to as the mobile zone) was first used in January 2015ⁱ to protect Bathurst caribou in the NWT from hunter harvest. The mobile zone will be in place until a new joint management proposal submission to the WRRB and proposed change in Bathurst caribou harvest deems otherwise. The mobile zone was delineated as a minimum convex polygon (MCP; essentially a polygon that encloses the locations of all collared Bathurst caribou) to account for other caribou in the herd associated with the collared animals.

A key assumption of defining the mobile zone is that the collared Bathurst caribou are truly representative of the distribution and movements of most animals in the herd. Based on this assumption being correct, the mobile zone offered two advantages over the two large, fixed zones used from 2010 to 2014: (1) the mobile zone was much smaller than the two large, fixed zones, limiting harvest restriction in the region, and (2) the mobile zone focused on where the herd was at any given time. In previous winters, some Bathurst collars were west and east of the large, fixed zones, thus potentially exposed to higher harvest pressure in those areas.

Starting in the 2016/17 harvest season, delineation of the mobile zone included a 60km buffer (see Appendix A of this document). The rationale for this modification was to provide more certainty and clearer information to hunters about the location of the mobile zone. The use of a

ⁱ From WRRB 2016.

- On January 20, 2015, ENR submitted a management proposal to the WRRB to establish a Mobile Core Bathurst Caribou Conservation Area (MCBCCA). Harvest was not permitted within the MCBCCA; however, harvest of a limited number of Bathurst bulls, up to a maximum of 15, would be considered by ENR within the MCBCCA for ceremonial purposes upon submission of a written proposal by an Aboriginal government with traditional harvesting rights for the Bathurst herd.
- On January 23, 2015, the WRRB supported the establishment of the proposed MCBCCA through wildlife regulations and the amendments to the Big Game Hunting Regulations to require authorization cards for harvest within R/BC/01, R/BC/02, and R/BC/03.
- On August 25, 2015 and September 22, 2015, respectively, TG and ENR provided short-term zekwò management recommendations for the 2015/16 harvest season. The Board responded to TG and ENR, on September 25, 2016, with reasons for decisions and a list of recommendations for the 2015/16 harvest season, including agreeing on and implementing a further reduction in the number of zekwò harvested by subsistence users of the Bathurst herd and whether the MCBCCA or Wildlife Management Unit Subzones is the most effective way to differentiate between barren-ground caribou herds.
- On November 27, 2015, TG and ENR accepted the WRRB's recommendations and came to an agreement to implement, for the 2015/16 harvest season, a harvest target of zero for the NWT Aboriginal harvest of the Bathurst herd, and the continued use of a renewed version of the MCBCCA, called the Mobile Core Bathurst Caribou Management Zone (MCBCMZ).
- Determination #1-2016: The Board determines that a total allowable harvest of zero for all users of the Bathurst zekwò herd within Wek'èezhìi be implemented for the 2016/17, 2017/18, 2018/19 harvest seasons. For further clarification, the absolute number of caribou that can be harvested from the Bathurst herd is zero.
- The total allowable harvest (TAH) of zero Bathurst caribou in Wek'èezhìi is still in place as of 2022/23.

larger mobile zone would allow for movement of caribou inside the zone between collar data acquisitions without creating the need for a new map. Thus, if Bathurst collared caribou moved around within a mobile zone with a 60 km buffer, the boundaries could remain unchanged for extended periods, as compared to a new zone and boundaries that changed weekly.

However, in the winter of 2016/17, the distribution of collared caribou from the Bathurst, Bluenose-East, and Beverly herds showed a high degree of overlap, which meant that the mobile zone for Bathurst caribou with a 60 km, 40 km, or 30 km buffer also enclosed most of the neighbouring herds (based on collars) and would have severely limited Indigenous hunting opportunities. As a result, the size of the buffer on the mobile zone was reduced to 20 km and then 10 km to give hunters reasonable opportunities to hunt the Beverly herd (where there is currently no harvest restriction in the NWT) and the Bluenose-East herd (in which a Total Allowable Harvest (TAH) of 750 and 193 bulls in Wek'èezhìi was determined for respective harvest seasons from 2016/17 to 2018/19, and 2019/20 to present). For a part of the 2016/17 winter season, the single mobile zone was changed to two sub-zones, a main one in the west and a smaller one in the east. Overall, monitoring by officers and community monitors indicated that few Bathurst or Bluenose-East caribou were harvested (based on the locations of reported kills relative to distributions of collared caribou) and that harvest was primarily Beverly caribou with a large proportion of bulls.

At a meeting of the Barren-Ground Caribou Technical Working Group (BCTWGⁱⁱ) Sept. 15, 2017, the unforeseen conditions and changes to the mobile zone in winter 2016/17 were reviewed and a revised set of rules was developed. The BCTWG recognized that a balance might be needed between conservation (no harvest) of the Bathurst herd, which will likely be promoted by larger buffers, and limiting harvest restrictions on neighbouring herds, which may be enabled by smaller buffers if there is overlap. Plans need to be adaptive, depending on whether the Bathurst herd is relatively well separated from neighbouring herds (Situation A) or well mixed with either one or both of the neighbouring herds (Situation B). These rules are an update on Appendix A from the June 29, 2016 TG & ENR response to the WRRB's Bathurst Caribou Final Report, Part A. The wildlife regulation for the mobile zone is in Appendix B.

This document has been reviewed and updated periodically since 2016 by the BGCTWG to ensure that it remains applicable as conditions, such as distribution of collars and the degree of herd mixing, change.

2. Situation A: Bathurst herd is largely separate from neighbouring herds.

In some winters (e.g., 2015/16; see Figure 1), the Bathurst collared caribou have been well separated from the Bluenose-East and Beverly caribou herds. Under these conditions (i.e., Situation A), hunter access to alternate herds is not restricted substantially by the mobile zone. Under these conditions, the following rules will be applied.

ⁱⁱ The BCTWG was established in 2010 following WRRB (2010) Recommendations #44-2010 and #45-2010, and comprises technical staff and consultants from WRRB, TG, and GWNT-ENR, who meet regularly through the year.

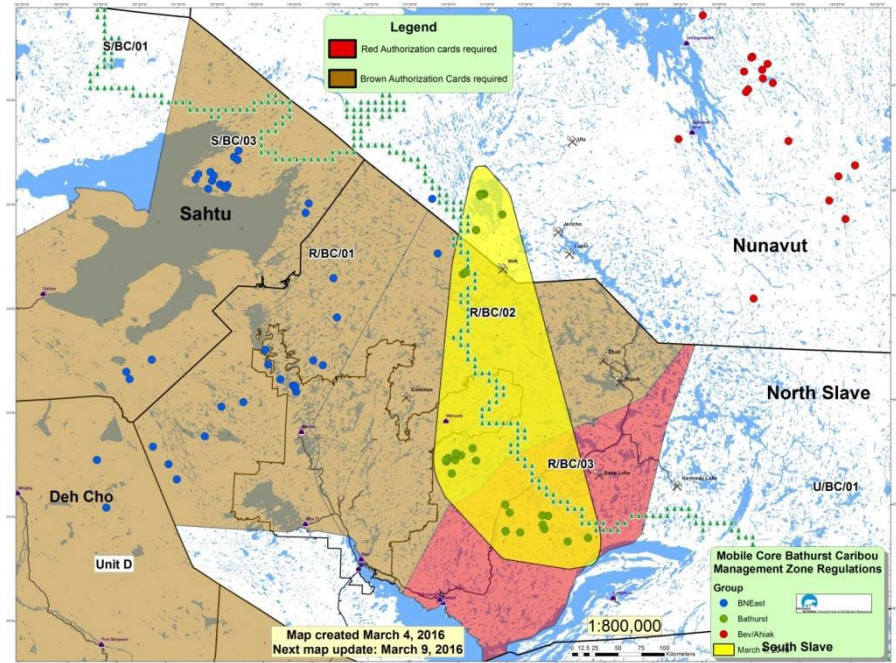


Figure 1. Mobile zone and collared caribou locations in March 2016. Bluenose-East collared locations are blue, Bathurst green and Beverly red. Map B. Croft, GNWT ENR.

- 2.1 The mobile zone boundary will initially be defined from a minimum convex polygon (MCP) around all functioning collars on Bathurst caribou (cows and bulls) plus a 60 km buffer around the MCP.
- 2.2 Collar locations will be updated weekly.
- 2.3 Weekly adjustments in buffer size may be considered as the season progresses.
- 2.4 The minimum buffer on the mobile zone should be 20 kmⁱⁱⁱ.
- 2.5 Use the range, mean, and median distance traveled by the collared caribou over the preceding seven days to help determine the size of the buffer. Distance traveled will be calculated measuring straight line distance between successive telemetry locations throughout the previous week; alternative methods may be explored and utilized in the future.
- 2.6 The recommended number of collars for the Bathurst herd to define its distribution with confidence is 40 or more, based on analyses by Adamczewski and Boulanger (2016).
- 2.7 With fewer collars, consideration should be given to a larger buffer on the mobile zone as there is a greater chance that a portion of the herd's distribution is not well defined.
- 2.8 An approximately equal number of collars on the two neighbouring herds is also recommended to define their distribution with confidence.
- 2.9 The mobile zone will be defined based on all active Bathurst collars, including any in Nunavut. Although the no harvest zone will only apply in NWT, any portion that extends

ⁱⁱⁱ Based on experience of flying the Bathurst mobile zone in winters with little overlap (e.g., 2015/16), the collars consistently are associated with the main wintering concentrations of the herd, and very few caribou are found more than about 20 km away from collars.

into NU will be indicated on the map, for informational purposes only, to illustrate where the Bathurst herd is located^{iv}.

- 2.10 In general, separation of the mobile zone into two or more sub-zones will be avoided and will be considered only when there is substantial overlap between herds. An example of substantial overlap from winter 2016-2017 is in Fig. 2; similar situations will be considered on a case-by-case basis. Division of the zone may be considered in part if this allows for reasonable access for hunters to neighbouring herds.
- 2.11 Once established, the mobile zone boundaries will not change as long as all the collared Bathurst caribou remain within the mobile zone and no collars are less than 20 km from the boundary.
- 2.12 If one or more collared Bathurst caribou move to within 20 km of the boundary of the zone or move out of the mobile zone, the mobile zone will be re-defined and the new zone boundaries will be in effect as long as all collared Bathurst caribou remain within the new boundaries.
- 2.13 With respect to areas where collared Bathurst caribou may overlap with collared Bluenose-East or Beverly caribou, the WRRB determination of a zero (0) Total Allowable harvest (TAH) on the Bathurst herd means that no caribou will be harvested within the mobile zone, regardless of herd affiliation.
- 2.14 On July 1 of each year, which is the start of a new harvest season, the mobile zone will be re-established with a 60km buffer as per these rules, when collared animals are present in the NWT.
- 2.15 Information about the mobile zone location will be made accessible to hunters by making public a weekly map, by making the zone available in formats for GPS devices and Google Earth, and by using signs on the winter road to show the direction of the zone boundary.

3. Situation B: Bathurst herd shows overlap with neighbouring herds.

During winter 2016/17, a 40km buffer on the Bathurst mobile zone would have nearly eliminated hunter access to Beverly caribou and restricted access to Bluenose-East caribou in Wek'èezhìi (see Figure 2). Under these conditions, reduction of the mobile zone buffer may be considered under the following rules.

^{iv} Government of Nunavut R-017-2017 - Bathurst Caribou Herd Total Allowable Harvest Order: <https://www.nunavutlegislation.ca/en/regulation/r-017-2017-bathurst-caribou-herd-total-allowable-harvest-order>); R-006-2019 - Bathurst Caribou Herd Total Allowable Harvest Order, amendment: <https://www.nunavutlegislation.ca/en/regulation/r-006-2019-bathurst-caribou-herd-total-allowable-harvest-order-amendment>

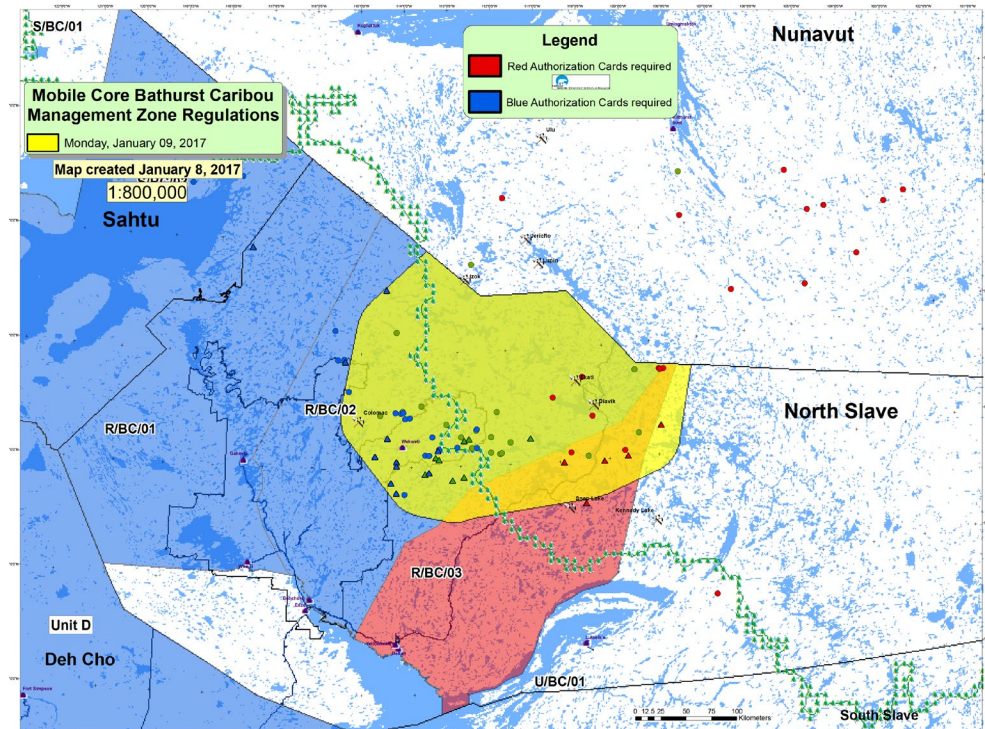


Figure 2. Mobile zone and collared caribou locations January 9, 2017 – 40 km buffer. Bluenose-East collared locations are blue, Bathurst green and Beverly red. Map B. Croft, GNWT ENR.

- 3.1 The mobile zone boundary will initially be defined from a minimum convex polygon (MCP) around all functioning collars on Bathurst caribou (cows and bulls) plus a 60 km buffer around the MCP.
- 3.2 Collar locations will be updated weekly.
- 3.3 Weekly adjustments in buffer size may be considered as the season progresses.
- 3.4 The minimum buffer on the mobile zone should be 20 km^v.
- 3.5 Use the range, mean, and median distance traveled by the collared caribou over the preceding seven days to help determine the size of the buffer. Distance traveled will be calculated measuring straight line distance between successive telemetry locations throughout the previous week; alternative methods may be explored and utilized in the future.
- 3.6 The recommended number of collars for the Bathurst herd to define its distribution with confidence is 40 or more, based on analyses by Adamczewski and Boulanger (2016).
- 3.7 With fewer collars, consideration should be given to a larger buffer on the mobile zone as there is a greater chance that a portion of the herd's distribution is not well defined.
- 3.8 An approximately equal number of collars on the two neighbouring herds is also recommended to define their distribution with confidence.
- 3.9 The mobile zone will be defined based on all active Bathurst collars, including any in Nunavut. Although the no harvest zone will only apply in NWT, any portion that extends

^v Based on experience of flying the Bathurst mobile zone in winters with little overlap (e.g., 2015/16), the collars consistently are associated with the main wintering concentrations of the herd, and very few caribou are found more than about 20 km away from collars.

into NU will be indicated on the map, for informational purposes only, to illustrate where the Bathurst herd is located^{vi}.

- 3.10 In general, separation of the mobile zone into two or more sub-zones will be avoided and will be considered only when there is substantial overlap between herds. An example of substantial overlap from winter 2016-2017 is in Fig. 2; similar situations will be considered on a case-by-case basis. Division of the zone may be considered in part if this allows for reasonable access for hunters to neighbouring herds.
- 3.11 Delineation of two or more sub-zones may be considered if there are two or more widely separated groups of collared caribou. The minimum distance between nearest-neighbour collars in proposed sub-zones should be 70km.
- 3.12 In situations where there is overlap between the Bathurst herd and adjacent herds, decisions about adapting and reducing the size of the mobile zone should err on the side of providing protection to the Bathurst herd against unintended levels of hunting. Consequently, the buffer size should not be reduced below a minimum of 20 km. If the number of active Bathurst caribou collars is ≤ 30 , then a minimum buffer of 50 km will be applied.
- 3.13 Boundaries of the mobile zone may be reduced to allow harvest access to non-Bathurst herds.
- 3.14 If more than 50% of the collared caribou from either the Bluenose-East or Beverly herds are found within the NWT, within the mobile zone, and at least some of the remaining Bluenose-East or Beverly collars are not reasonably accessible, then reduction of the mobile zone buffer may be considered.
- 3.15 If one or more collared Bathurst caribou move to within 20 km of the boundary of the zone or move out of the mobile zone, the mobile zone will be re-defined and the new zone boundaries will be in effect as long as all collared Bathurst caribou remain within the new boundaries.
- 3.16 With respect to areas where collared Bathurst caribou may overlap with collared Bluenose-East or Beverly caribou, the WRRB determination of a zero (0) TAH on the Bathurst herd means that no caribou will be harvested within the mobile zone, regardless of herd affiliation.
- 3.17 On July 1 of each year, which is the start of a new harvest season, the mobile zone will be re-established with a 60km buffer as per these rules, when collared animals are present in the NWT.
- 3.18 Information about the mobile zone location will be made accessible to hunters by making public a weekly map, by making the zone available in formats for GPS devices and Google Earth, and by using signs on the winter road to show the direction of the zone boundary.

4. Review of Mobile Zone definition:

To assist in adaptive decision-making about the mobile zone, the BGCTWG meets monthly between May and December and then weekly starting mid-January until mid-April to review

^{vi} Government of Nunavut R-017-2017 - Bathurst Caribou Herd Total Allowable Harvest Order: <https://www.nunavutlegislation.ca/en/regulation/r-017-2017-bathurst-caribou-herd-total-allowable-harvest-order>); R-006-2019 - Bathurst Caribou Herd Total Allowable Harvest Order, amendment: <https://www.nunavutlegislation.ca/en/regulation/r-006-2019-bathurst-caribou-herd-total-allowable-harvest-order-amendment>

collar data, movement rates, and mobile zone delineation, and recommend to TG, ENR, and WRRB any boundary updates to be made. The BGCTWG will periodically review information on amount of and location of harvest to ensure protection of the Bathurst herd while allowing reasonable harvesting opportunities outside the zone from other herds where harvest is either unrestricted or limited.

In addition, in 2022/23, the BCTWG conducted a review to consider other ways of creating the mobile zone from collared caribou locations beyond the buffered MCP that has been used since 2015. This review (R. Abernethy and R. Kite unpub. data) may result in eventual modifications to the rules of the mobile zone definition.

References:

- Adamczewski, J. and J. Boulanger. 2016. Technical rationale to increase the number of satellite collars on the Bathurst caribou herd. Environment and Natural Resources, Government of Northwest Territories, Yellowknife, Northwest Territories, Canada, Manuscript Report no. 254.
- Wek'èezhì Renewable Resources Board (WRRB). 2010. Report on a Public Hearing held by the Wek'èezhì Renewable Resources Board, 22-26 March 2010, 5-6 August 2010, Behchokò, NT. and Reasons for decisions related to a joint proposal for the management of the Bathurst caribou herd. Wek'èezhì Renewable Resources Board, Yellowknife, NT. 170 pp.
- Wek'èezhì Renewable Resources Board (WRRB) 2016. Report on a Public Hearing Held by the Wek'èezhì 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'èezhì Renewable Resources Board, Yellowknife, NT. 89 pp.

APPENDIX “A” from June 29, 2016 TG & ENR response to the WRRB’s Bathurst Caribou Final Report, Part A

As a result of a number of discussions between TG and ENR, the approach to defining the Bathurst Mobile Core Conservation Zone (MCBCMZ) has been modified slightly from the initial two winters to reduce the number of times that the zone is re-defined and make the zone more predictable and practical for hunters. The criteria for defining the zone for the 2016/17 harvest season are expected to be as follows:

- The mobile zone boundary will be defined from a minimum convex polygon (MCP) around all functioning collars on Bathurst caribou (cows and bulls) plus a 60 km buffer around the MCP.
- Where collared Bathurst caribou show distinct, well-separated sub-groups, the mobile zone can be shaped as two or more parts of the mobile zone.
- Once established, the mobile zone boundaries will not change as long as all the collared Bathurst caribou remain within the mobile zone.
- If one or more collared Bathurst caribou move to within 5 km of the boundary of the zone or move out of the mobile zone, the mobile zone will be re-defined based on the same method described above, and the new zone boundaries will be in effect as long as all collared Bathurst caribou remain within the new boundaries.
- With respect to areas where collared Bathurst caribou may overlap with collared Bluenose-East or Beverly and Ahiak caribou, the WRRB determination of a zero (0) harvest on the Bathurst herd means that no caribou will be harvested within the mobile zone, regardless of herd affiliation. The possibility of dividing the mobile zone into two or more parts provides some flexibility with respect to identifying areas where collared caribou from neighbouring herds may be found and where some harvest is possible provided there are not Bathurst collars in the area.
- The mobile zone will be defined in the NWT beginning when collared Bathurst caribou move back into the NWT, potentially as early as mid-summer, and will continue until the end of the winter harvest season.
- TG and ENR will explore ways of modifying zone boundaries to use natural features such as rivers or lake edges as a way of making the zone more practical for hunters, provided that there is no significant reduction in protection for the Bathurst herd. Review of the mobile zone boundaries from winter 2015/16 suggests that from about the end of November to the end of March, there was little directional movement of collared Bathurst caribou, and a relatively fixed zone may be possible. Boundaries on the land that are readily recognized by hunters would be helpful to both harvesters and enforcement officers.
- TG and ENR will also explore ways of making information about the mobile zone location more easily accessible to hunters by making it available in formats for GPS devices and Google Earth, and by using signs on the winter road to show the direction of the zone boundary.

Appendix B: Mobile Core Bathurst Caribou Management Zone Regulations, Amended 2021.

WILDLIFE ACT

**MOBILE CORE BATHURST CARIBOU
MANAGEMENT ZONE REGULATIONS**

R-006-2016

In force January 23, 2016

LOI SUR LA FAUNE

**RÈGLEMENT SUR LA ZONE DE GESTION
DU NOYAU DE POPULATION MOBILE
DU CARIBOU DE BATHURST**

R-006-2016

En vigueur le 23 janvier 2016

AMENDED BY

R-007-2021

MODIFIÉ PAR

R-007-2021

This consolidation is not an official statement of the law. It is an office consolidation prepared by Legislation Division, Department of Justice, for convenience of reference only. The authoritative text of regulations can be ascertained from the *Revised Regulations of the Northwest Territories, 1990* and the monthly publication of Part II of the *Northwest Territories Gazette*.

This consolidation and other G.N.W.T. legislation can be accessed online at

<https://www.justice.gov.nt.ca/en/browse/laws-and-legislation/>

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La présente codification administrative et les autres lois et règlements du G.T.N.-O. sont disponibles en ligne à l'adresse suivante :

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WILDLIFE ACT

MOBILE CORE BATHURST CARIBOU MANAGEMENT ZONE REGULATIONS

The Commissioner, on the recommendation of the Minister, under sections 88 and 173 of the *Wildlife Act* and every enabling power, makes the *Mobile Core Bathurst Caribou Management Zone Regulations*.

1. The Mobile Core Bathurst Caribou Management Zone is established as a wildlife management zone for caribou, consisting of one or more areas delimited as follows:

- (a) from the date that these regulations come into force to January 25, 2016, in accordance with the area shaded in yellow in the map in the Schedule;
- (b) from January 26, 2016 and thereafter, in accordance with a map of the area or areas, which shall be
 - (i) lodged with the Superintendent and available for public inspection at the offices of the Department of Environment and Natural Resources in Fort Simpson, Fort Smith, Inuvik, Norman Wells and Yellowknife, and
 - (ii) posted in a conspicuous place in each community in or near which the area or areas are located.

R-007-2021,s.2,3.

2. (1) No person shall harvest caribou in an area that is part of the Mobile Core Bathurst Caribou Management Zone.

(2) For greater certainty, these regulations prevail over the *Big Game Hunting Regulations* in respect of the authorization to harvest caribou in those wildlife management zones or areas that overlap with any area that is part of the Mobile Core Bathurst Caribou Management Zone. R-007-2021,s.2.

3. The *Mobile Core Bathurst Caribou Conservation Area Regulations*, established by regulation numbered R-006-2015, are repealed.

LOI SUR LA FAUNE

RÈGLEMENT SUR LA ZONE DE GESTION DU NOYAU DE POPULATION MOBILE DU CARIBOU DE BATHURST

Le commissaire, sur la recommandation du ministre, en vertu des articles 88 et 173 de la *Loi sur la faune* et de tout pouvoir habilitant, prend le *Règlement sur la zone de gestion du noyau de population mobile du caribou de Bathurst*.

1. La zone de gestion du noyau de population mobile du caribou de Bathurst est désignée à titre de zone de gestion de la faune du caribou et est composée d'une ou plusieurs des régions décrites comme suit :

- a) à compter de l'entrée en vigueur du présent règlement, soit le 25 janvier 2016, en conformité avec l'aire ombragée en jaune sur la carte à l'annexe;
- b) à compter du 26 janvier 2016 et, par la suite, en conformité avec la carte de la région ou des régions qui est, à la fois :
 - (i) déposée auprès du surintendant et mise à la disposition du public pour consultation aux bureaux du ministère de l'Environnement et des Ressources naturelles de Fort Simpson, de Fort Smith, d'Inuvik, de Norman Wells et de Yellowknife,
 - (ii) affichée dans un endroit bien en vue dans chaque collectivité dans, ou près de, laquelle la région ou les régions sont situées.

R-007-2021, art. 2 et 3.

2. (1) Il est interdit à toute personne de récolter le caribou dans une région qui fait partie de la zone de gestion du noyau de population mobile du caribou de Bathurst.

(2) Il est entendu que le présent règlement l'emporte sur le *Règlement sur la chasse au gros gibier* qui traite de l'autorisation de récolter le caribou dans ces zones ou régions de gestion de la faune qui chevauchent toute région qui fait partie de la zone de gestion du noyau de population mobile du caribou de Bathurst. R-007-2021, art. 2.

3. Le *Règlement sur la région de conservation du noyau de population mobile du caribou de Bathurst*, pris par le règlement n° R-006-2015, est abrogé.

4. These regulations come into force
January 23, 2016.

4. Le présent règlement entre en vigueur le
23 janvier 2016.

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