Request for Information from Wek'èezhìi Renewable Resources Board dated March 4, 2016 Environment and Natural Resources Response

We are now enclosing our response to the WRRB's request for more information to support the proposed allocations for the Bluenose-East caribou herd.

We draw your attention to the following responses to various information requests by both the WRRB and the SRRB which address the issues surrounding allocation:

WRRB IR Request Round 1, IR #'s 11 & 12
WRRB IR Request Round 2, IR # 2
SRRB IR Request Round 1, IR #'s 4, 6(a) and (b)

The information contained in those responses outlines the many factors which were taken into consideration prior to coming to a proposed allocation. For that reasons, we do not propose to repeat the information contained in those responses. For your ease of reference, we have attached our responses to each of the Information Requests noted above as Exhibit "A" to this response. As you will note, the responses to the SRRB, contain past harvest data for the four year period, 2010-2014.

We are also enclosing a copy of the ACCWM draft allocation from 2011 which is noted as one of the factors which was taken into consideration in determining an allocation for the 2014-2015 harvest season. It is attached as Exhibit "B".

The precedent for the approach was the method used by the GRRB, WMAC-NWT and SRRB in 2006 to determine a sharing formula for the Bluenose-West harvest when a Total Allowable Harvest was being considered for that herd. Past harvest was the main criterion used. A similar approach was also taken for the sharing formula in the Porcupine Caribou Harvest Management Plan in 2010, also relying primarily on estimates of harvest from that herd from user groups. Copies of these documents are also attached.

The July 2015 calving ground photo survey confirmed that the BNE herd had continued to decline since the 2013 calving ground photo survey and that the annual rate of decline had increased to 31% for 2013 – 2015. Given this rapid rate of decline, ENR believed that continuing the 2014 – 2015 level of harvest would contribute significantly to the herd's downward trend and agreed with the Tlicho Government's (TG) recommended total harvest limit of 950 BNE caribou for 2015-2016. This represented a harvest rate of 2.5% of the herd. The TG also recommended that the allocation formula based on the early 2015 allocation be used to limit the NWT BNE Aboriginal harvest of 611 caribou with an allocation of Tlicho 373, Sahtu 163, Dehcho 15, Inuvialuit 8, Northwest Territory Metis Nation 14, Akaitcho 20, North Slave Metis Alliance 17 and Nunavut 339.

Before sending a recommendation to the WRRB for an allocation for the BNE herd for the 2015-2106 harvesting season, in addition to considering all of the factors set out above, ENR also took into consideration the following:

- The results of the 2015 calving ground survey;
- The ACCWM management plan which would place the BNE herd in the orange declining phase where a Total Allowable Harvest acceptable to ACCWM can be established,

- ENR's harvest rule-of-thumb and associated modeling of harvest and caribou populations,
- Feedback received from Aboriginal governments and co-management partners after the 2014-2015 harvest season;
- Feedback received from Aboriginal governments and co-management partners through participation in the Barren-Ground Caribou Technical Working Group through the Summer & Fall of 2015;
- Feedback received from attending the ACCWM Meeting on August 7, 2015 to discuss the preliminary results of the survey;
- Tlicho Government recommendations of August 25, 2015 to the WRRB on BNE harvest,
- Feedback provided by Aboriginal governments and co-management partners in response to ENR's letter of September 24, 2015 sharing the preliminary results of the 2015 calving ground surveys for the BNE;
- The need to consider the Nunavut harvest;
- The harvest results for the 2014-2015 harvest season.
- The WRRB recommendations of 2010 for this herd, and the herd's much reduced numbers and its downward acceleration similar to the Bathurst herd's most rapid decline between 2006 and 2009:

The same allocation formula and total allowable harvest was included in the joint management proposal for the BNE herd submitted to the WRRB in December 2015 to apply for harvest seasons from 2016-2017 to 2018- 2019, with the proviso that if a more comprehensive sharing formula agreed on by co-management boards and Aboriginal governments becomes available, then this formula could be replaced with a formula accepted by all user groups..

ENR received a request from the ACCWM in the early fall to call a meeting of all traditional NWT and Nunavut harvesters of the Bluenose-East caribou herd as well as wildlife management authorities from the Bluenose-East caribou herd range, including the Gwich'in Renewable Resources Board, Sahtu Renewable Resources Board (SRRB), Wildlife Management Advisory Council (NWT) and WRRB, to discuss and determine a harvest allocation. ENR was able to facilitate that request on January 20, 2016

On January 20, 2016, ENR convened a meeting of all Aboriginal user groups to further discuss allocation for the BNE herd. A slightly different sharing formula was proposed at that meeting that would give each of the Aboriginal harvester groups that harvested only a small number of Bluenose-East caribou a minimum harvest allocation of 2% of the total allowable harvest. Under this approach, the 950 animals would be allocated as follows.

TliCho	38.6%
Sahtu	16.4%
Dehcho	2%
Inuvialuit	2%
NWTMN	2&
Akaitcho	2%
NSMA	2%
Nunavut	35%

That proposal is also contained in the letter to the SRRB from IGC and WMAC, a copy of which is attached as Exhibit "C"

Participants are currently reviewing the suggested allocation formulas with their communities and constituents and will provide recommendations.

ENR is very optimistic that the final allocation for the next three years will be able to result from the recommendations from this workshop and from further discussions during public hearings of the SRRB & the WRRB.

Bluenose-East Caribou Interim NWT Harvest Allocation for Winter 2014-2015:

Numbers from ACCWM proposed allocation 2011 for Bluenose-East herd

(based on winter 2009-2010 harvest data & related information)

& ENR Bluenose-East harvest data (recorded via community monitors, check-stations and wildlife patrols, based on winters 2011-2012, 2012-2013, 2013-2014)

	A	В	C	D	E
Aboriginal Group	ACCWM 2011	Three winters	Average of A & B	Proposed Interim	Proposed
	Proposed	(2011-2014)		Allocation as %	Interim
	Allocation as %	Harvest as %			Allocation as
					share of 1800
Tlicho	61	72.7	66.9	61.1	1100
Sahtu	31	21.3	26.2	26.7	480
Dehcho	3	1.2	2.1	2.5	45
Inuvialuit	2	0*	1.0	1.4	25
NWTMN	2	1.3	1.6	2.2	40
Akaitcho (YKDFN)	1	3.5	2.2	3.3	60
NSMA	0*	0*	0*	2.8	50
Total	100	100	100	100	1800

^{*}No harvest recorded

Approach Used:

- ACCWM Proposed Bluenose-East Allocation from 2011 and 3 last winters of harvest data (2011-2014) given equal weight (used average of % values).
- Percentages translated to share of 1800 harvest limit recommended by ACCWM in Jan. 2015.
- Assume harvest reported for Hay River, Ft Smith and Ft Resolution is NWTMN.

Bluenose-East Caribou Interim NWT Harvest Allocation for Winter 2014-2015:

Numbers from ACCWM proposed allocation 2011 for Bluenose-East herd

(based on winter 2009-2010 harvest data & related information)

& ENR Bluenose-East harvest data (recorded via community monitors, check-stations and wildlife patrols, based on winters 2010-2011, 2011-2012, 2012-2013, 2013-2014)

	A	В	С	D	E
Aboriginal Group	ACCWM 2011	Four winters	Average of A & B	Proposed Interim	Proposed Interim
	Proposed	(2010-2014)		Allocation as %	Allocation as
	Allocation as %	Harvest as %			share of 1800
Tlicho	61	76.2	68.6	61.1	1100
Sahtu	31	18.4	24.7	26.7	480
Dehcho	3	0.9	1.9	2.5	45
Inuvialuit	2	0*	1.0	1.4	25
NWTMN	2	1.0	1.6	2.2	40
Akaitcho (YKDFN)	1	3.5	2.2	3.3	60
NSMA	0*	0*	0*	2.8	50
Total	100	100	100	100	1800

^{*}No harvest recorded

Approach Used:

- ACCWM Proposed Bluenose-East Allocation from 2011 and 4 last winters of harvest data (2010-2014) given equal weight (used average of % values).
- Percentages translated to share of 1800 harvest limit recommended by ACCWM in Jan. 2015.
- Assume harvest reported for Hay River, Ft Smith and Ft Resolution is NWTMN.

ENR Bluenose-East harvest data in NWT (recorded via community monitors, check-stations and wildlife patrols), based on winters 2010-2011, 2011-2012, 2012-2013, 2013-2014

	2010-2011		2011-2012		2012-2013		2013-2014		Ave Last 3 winters as %	Ave Last 4 winters as %
Aboriginal Group	Caribou taken	% of total	Caribou taken	% of total	Caribou taken	% of total	Caribou taken	% of total		
Tlicho	1103	86.8	1150	71.1	1406	75.7	1450	71.3	72.7	76.2
Sahtu	123	9.7	300	18.6	365	19.7	517	25.5	21.3	18.4
Dehcho	0*	0*	34	2.1	7	0.4	25	1.2	1.2	0.9
Inuvialuit	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
NWTMN**	0*	0*	0*	0*	53	2.8	24	1.2	1.2	1.0
Akaitcho (YKDFN)	44	3.5	132	8.2	26	1.4	17	0.8	3.5	3.5
NSMA	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
Total	1270	100	1616	100	1857	100	2033	100	100	100

^{*} No harvest recorded

^{**}Assume harvest reported for Hay River, Ft Smith and Ft Resolution is NWTMN.

Exhibit "A"

WRRB Information Request Round 1, #'s 11 & 12

<u>Information Request #11</u>: Please provide the basis and analyses for the proposed harvest level of 950 males/year (~2.5%) and likelihood for it to halt the decline of breeding females. Please describe whether a possible annual increase of 5-7% in the number of females (the average number of females that will not be harvested) will halt the annual rate of decline (~30%).

Parties Responsible: Environment and Natural Resources

<u>Rationale IR #11</u>: The proposal gives the average estimated/reported Bluenose-East harvest in winters 2009-2010 to 2012-2013 was about 2700 caribou/year but possibly 4000/year and likely at least 65% cows (ENR 2014a; BGTWG 2014).

Response (ENR): ENR has carried out harvest modeling to assess how various levels and sex ratio of harvest are likely to affect caribou herds varying in size and trend (e.g. Boulanger and Adamczewski 2014). The basic trends resulting from that modeling were summarized in a "Rule of thumb" document (ENR 2014b) that includes a recommended range for level and sex ratio of harvest depending on a herd's relative size and trend. In general, herds declining rapidly and at relatively low numbers are most sensitive to additional mortality from harvest, particularly cow harvest, thus conservative harvests (low % of herd size and few cows) are recommended for such herds. A recommended harvest rate of 2.5% of the herd and 100% bulls was chosen because of the relatively low herd size and rapidly declining trend of the herd (ENR 2014b). The 2015 calving ground photo survey results indicate a decline of about 50% in the number of breeding cows in the herd in two years (Boulanger et al. 2016), which highlights the need to conserve the herd's breeding cows as the single most important part of the herd for recovery. Decisions about harvest of caribou herds should also reflect other management plans, including the Deline caribou conservation plan, and discussions amongst co-management partners and traditional users of the Bluenose-East caribou herd. . The ACCWM management plan for the Cape Bathurst, Bluenose-West and Bluenose-East herds (ACCWM 2014) would indicate that the BNE herd is in the "orange" or declining phase between 20,000 and 60,000, where a Total Allowable Harvest (TAH) acceptable to the ACCWM may be set, with an emphasis on harvest of bulls (particularly younger bulls).

In the response to IR#12 below, an example is given as to how a harvest of 1890 cows from a BNE herd with 27,000 cows could be the difference between a stable herd with no harvest and a herd declining relatively rapidly with a harvest of 1890 cows. The level of harvest in this example was selected as a conservative estimated based on the harvest levels and harvest sex ratio identified in Rationale IR #11 above. It is important to bear in mind that the underlying natural survival rates, pregnancy rates and calf survival rates of the herd are affected by weather, predators and other factors, and that the herd may decline with no harvest if other factors are adverse. Eliminating the cow harvest is not a guarantee of the herd stabilizing or recovering.

<u>Information Request #12</u>: Please provide the annual 2009-2015 harvests, the method of data collection and the likely amount that they reduced adult survival.

Parties Responsible: The Government and Environment and Natural Resources

Rationale IR #12: The proposal does not provide a mechanism for the decline of breeding females at a rate of about 29% per year since 2012. The proposal mentions but does not describe an increase in the Bluenose East harvest when the Bathurst harvest was restricted to 300 in 2010. Information on the likely range of annual harvests could determine the extent that harvesting or other sources of mortality have contributed to the annual decline.

Response (TG): Please refer to IR#10 ·

Response (ENR): Monitoring all harvest of barren-ground caribou herds in the NWT (and where applicable in NU) is a priority for ENR and for TG in herds of importance to Tłįcho communities, but it can only succeed if all harvesters and communities commit to accurate and consistent harvest reporting. Reported or estimated harvest of the BNE herd from winter 2009-2010 to winter 2014-2015 is reported in a table below. Observations from ENR staff in the field and from Aboriginal observers have suggested that these harvest totals are under-reported; the true harvest may be greater by an unknown but substantial proportion.

Previously, annual reported harvest of 2500-3500 Bathurst caribou in 2007-2008 and 2008-2009 gathered from check-stations, community monitors and community interviews was seen as underestimated by up to half (i.e. true harvest was closer to 5000-7000) by wildlife staff in the field, based on wounding losses, not reporting, and under-reporting, etc, as recorded by Adamczewski et al.(2009).

An evaluation using a population model that used all demographic information about the herd included simulations of a constant harvest of 3000, 5000 and 8000 cows from the declining Bathurst herd; these simulations suggested that a constant harvest of 5000 cows/year from a declining herd was a reasonable fit to the herd's accelerated decline 2006-2009 (Boulanger et al. 2011). While a population model cannot provide an estimate of harvest, the simulations suggested that harvest of 5000 cows/year was a reasonable fit with all other information about the herd at that time. This provided partial support for the substantial under-estimation of Bathurst harvest up to 2009. Harvest estimates were derived by a combination of methods, including community monitors, check-stations, and in some cases (e.g. estimated Nunavut harvest from Kugluktuk) from knowledge of experienced wildlife officers or managers in the communities.

To place the harvest in perspective with recent demographic trends of the BNE herd, the following example is provided. The most recent population analysis for the herd suggests an overall cow survival rate of 74% (Boulanger et al. 2016). At this cow survival rate (including natural mortality and harvest), the herd will likely continue to decline rapidly as cow survival rates must be at least 80-85% for a stable herd (Crete et al. 1996, Boulanger et al. 2011). If the herd has 27,000 cows in total, then at a survival rate of 74%, 7,020 cows would die in a year. If there is a cow harvest of 1,890 (70% of the average 2700 BNE harvest reported 2010-2014) included in the mortality, this would

mean that 5,130 cows would die of natural causes and an additional 1,890 cows would be removed through harvest. If this harvest was eliminated and 5,130 cows still died of natural causes, then the overall cow mortality rate would be 19% and the survival rate would be 81%. At this cow survival rate, the herd could be stable. In this example, eliminating the cow harvest of 1,890 could be the difference between a herd that is stable and one that is declining at a fairly rapid rate. Eliminating the cow harvest is not a guarantee of the herd stabilizing or recovering, however, as natural factors (predators, weather effects) will still affect cow, calf and bull survival rates. If the natural survival rate of cows is low, or if pregnancy rates and calf recruitment are low, then the herd may still decline with no harvest.

The graphs below show the practical experience that has been gained with three caribou herds in the NWT where harvest was either eliminated or reduced substantially in herds that had been declining rapidly; all three herds shifted to a stable trend. It is important to note that in each case, calf recruitment that had been low for the three herds increased substantially at about the same time that harvest was reduced. It is possible that natural adult survival rates also increased when calf recruitment increased. This also contributed substantially to a stabilizing trend in these herds.

Cape Bathurst, Bluenose-West & Bathurst Herds 2000-2012

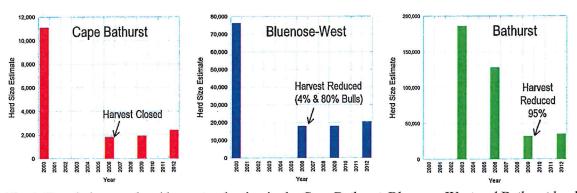


Fig. 1. Population trend and harvest reduction in the Cape Bathurst, Bluenose-West and Bathurst herds 2000-2012.

Table 2. Estimated BNE harvest in NWT and NU for winters 2009-2010 to 2013-2014

Winter Season	Estimated Caribou Harvest	% Cows in Harvest
2009-2010	3,466	≥ 65%
2010-2011	2,918	≥ 65%
2011-2012	1,766	≥ 65%
2012-2013	2,562	≥ 65%
2013-2014	3,016	≥ 65%

Harvest information for winter 2014-2015 was incomplete; harvest was likely substantially reduced from previous winters as the herd was generally remote through the winter. Harvest was likely below the 1800 limit recommended for the herd in NWT.

WRRB Information Request Round 2, # 2

Information Request #2:

Parties Responsible: Environment and Natural Resources

The Proposal indicates that "this harvest would be reviewed annually as new information becomes available". Page 2 of the Proposal sets out a herd wide total allocation of 950 caribou, all bulls, divided among traditional users in the NWT and Nunavut. Commercial harvest is to remain at zero ("0"). The NWT share is to be 611 divided as follows: Tłıchǫ 373; Sahtú 163; Dehcho 15; Inuvialuit 8; NWT Métis Nation 14; Akaitcho 20 and North Slave Métis Alliance 17.

a) Please provide the background information upon which the Proposal's caribou harvest allocation is based. Explain the proposed allocations for each user group.

Information Requests Round No.2 - Bluenose-East Caribou Herd Joint Management Proposal

In response to this question, ENR would direct readers to its responses to SRRB IR Round 1, Question 6(a) and (b) and it's Additional Information for Question 6. The proposed allocation for 2016 took into account all of the factors and principles that were considered in making the allocation for the 2014-2015 winter harvest season, subsequent information and input and then adjustments were made to recognize the lower total harvest target of 950 animals.

Prior to determining an allocation for the BNE herd in early Feb. 2015, ENR, on a request from the Advisory Committee for Cooperation on Wildlife Management (ACCWM), convened a conference call on BNE allocation to which all user groups and co-management boards were invited, on Feb. 2, 2015. Unfortunately some groups were not available and the parties on the conference call were unable to come to agreement at that time. Participants on the call indicated that it would not be appropriate for them to make a decision on allocation without all the necessary parties present.

ENR made an interim allocation on the basis of criteria described in a letter from ENR to all parties on Feb. 6, 2015. As set out in the letter, the Minister considered the following at that time:

- The principles set out in the draft Management Plan, Taking Care of Caribou: The Cape Bathurst, Bluenose-West, and Bluenose-East Barren Ground Caribou Herds Management Plan.
- The desire to make a decision which reflects the long-term commitment to cooperative wildlife management recognizes the need for communities to be involved
 in management, the need to strike a balance so that the needs of all users with rights
 to harvest are met, and the need to think about the future of the caribou and manage
 actions accordingly.
- Past harvesting patterns based on reported harvests from the Bluenose-East herd on both a regional and community level for the 2011-2014 harvesting seasons;
- In considering prior year harvests, a recognition that that there are some user groups who did not harvest and who have asserted rights to harvest caribou and had to be taken into account in the allocation;
- The draft BNE allocation discussed by the ACCWM in late 2010-2011 but recognizing and accepting its limitations as a draft document which did not proceed further and which did not include all users who have to be considered at the present time; the draft allocation was compared against three years of past harvesting patterns to come to an average. These calculations are shown in the chart below.
- The management actions set out in the Taking Care of Caribou: The Cape Bathurst, Bluenose-West, and Bluenose-East Barren Ground Caribou Herds Management Plan when the herd is in the orange zone;

- The Taking Care of Caribou: The Cape Bathurst, Bluenose-West, and Bluenose-East Barren Ground Caribou Herds Management Plan notes that the BNE herd usually migrates through settlement areas/regions in the NWT and that the herd is typically harvested by nine communities: Wrigley, Norman Wells, Tulita, Déline, Whati, Gamèti, Behchokò, Paulatuk and Kugluktuk.
- The comments and recommendations contained in the community consultation report on the Taking Care of Caribou: The Cape Bathurst, Bluenose-West, and Bluenose-East Barren Ground Caribou Herds Management Plan;
- That the reported harvest as of February 2nd, 2015 was 593 Bluenose-East caribou and 308 of those animals are cows;
- Consideration of traditional harvesting patterns and practices;
- The migration patterns of the BNE herd and their typical availability within traditional harvesting areas of each Aboriginal organization;
- The proximity and access to the BNE caribou herd in 2014-2015 in relation to the location of communities and the distance to be traveled in order to harvest;
- The provisions of settled land claim agreements, along with obligations to groups who have asserted rights and the obligations created by the findings of courts as set out in the case law;
- The availability of other barren ground caribou herds including the Beverly Ahiak barren ground caribou herds, which have no limits on Aboriginal harvesting for the 2014-2015 harvesting season and the availability of Bluenose-West caribou herd for some users;
- The availability of other populations of wildlife that can be readily accessed to meet the need for subsistence food;
- The populations of each user group based on statistics maintained by government and in some cases provided by user groups, including the report from the NWT Bureau of Statistics entitled *Community Population by Ethnicity*, 2001-2014;
- Statistical information on the number of Aboriginal persons who *Hunt & Fished During 2008 on a Community Basis* as published by the NWT Bureau of Statistics;
- Personal consumption needs for people who have harvesting rights in these areas.
- During the October 2014 Technical Meeting and the November 2014 Leaders Meetings on caribou, there were a few concrete suggestions put forward:

- Mr. Bailey on behalf of the NWT Métis Nation indicated that they could hunt from the herds in the south and that it was important that the Tłıcho, YK Dene and the Métis north of the lake could hunt this winter.
- o It was noted that one community had muskox which could be shared.
- At the Technical Working Meeting in October, there was an indication that the Sahtú were willing to limit their harvesting in the Hottah Lake area to reduce pressure on BNE and Bathurst.
- o The ability of ENR to assist with and facilitate community hunts;
- The impact of earlier harvest restrictions on the Bathurst herd and other wildlife populations on Aboriginal harvesters;
- The input received during the course of our in-person meetings on November 7th, 2014, November 28th, 2014, the information received from our in-person meetings with users in December 2014 and January 2015, the information and input received through the written exchange of correspondence and the input received during a conference call on February 2nd, 2015 between Deputy Minister Campbell and affected Aboriginal organizations and co-management boards.

The precedent for this approach was the method used by the GRRB, WMAC-NWT and SRRB in 2006 to determine a sharing formula for the Bluenose-West harvest when a Total Allowable Harvest was being considered for that herd. Past harvest was the main criterion used. A similar approach was also taken for the sharing formula in the Porcupine Caribou Harvest Management Plan in 2010, also relying primarily on estimates of harvest from that herd by user groups.

In developing a proposed allocation for the Joint Bluenose East Caribou Management Proposal, in addition to considering all of the factors set out above, ENR also took into consideration the following:

- The results of the 2015 calving ground survey;
- The ACCWM management plan which would place the BNE herd in the orange declining phase where a Total Allowable Harvest acceptable to ACCWM can be established,
- ENR's harvest rule-of-thumb (discussed in WRRB BNE Round 1 IR #11; "Rule of thumb: document ENR 2014b provided as an attachment to the response to WRRB) and associated modeling of harvest and caribou populations,
- Feedback received from Aboriginal governments and organizations and comanagement partners after the 2014-2015 harvest season;

- Feedback received from Aboriginal governments and organizations and comanagement partners through participation in the Barren-Ground Caribou Technical Working Group through the Summer & Fall of 2015;
- Feedback received from attending the ACCWM Meeting on August 7, 2015 to discuss the preliminary results of the 2015 calving ground survey;
- Tłicho Government recommendations of August 25, 2015 to the WRRB on BNE harvest;
- Feedback provided by Aboriginal governments and organizations and comanagement partners in response to ENR's letter of September 24, 2015 sharing the preliminary results of the 2015 calving ground surveys for the BNE;
- The need to consider the Nunavut harvest;
- The harvest results for the 2014-2015 harvest season;
- The WRRB recommendations of 2010 for the BNE, and the herd's much reduced numbers and its downward acceleration similar to the Bathurst herd's most rapid decline between 2006 and 2009.

ENR received a request from the ACCWM in early fall 2015 to call a meeting of all traditional NWT and Nunavut harvesters of the BNE as well as wildlife management authorities from the BNE caribou herd range, including the GRRB, SRRB, WMAC (NWT) and WRRB, to discuss and determine a harvest allocation. ENR was able to facilitate that request on January 20, 2016. ENR is very optimistic that the final allocation for the next three years will be able to result from the recommendations from this workshop, which are now being reviewed by participant groups, and from further discussions at the upcoming public hearings of the SRRB & the WRRB.

b) Please outline the proposed system for harvest authorizations.

For compliance management to be effective, officers and monitors must be able to determine that harvest is authorized and thereby lawful. ENR proposes use of Authorization Cards for bulls only for this purpose. The cards would be provided to the Aboriginal Governments and organizations for distribution to their members/harvesters.

Authorization cards would contain a unique identifier number that can be registered, tracked and accounted for. The cards would be printed on durable materials that can withstand use in the field under adverse environmental conditions; are difficult to reproduce or counterfeit and could be designed in such a way that a portion can be removed and retained by the harvester and the other portion submitted to the regional ENR office to fulfill harvest reporting requirements.

The Déline Caribou Conservation Plan does not include use of authorization cards but does require harvesters to use Health Sample Kits that must be provided to the Déline Renewable Resource Council. It may be possible to use Health Sample Kits as a form of authorization but more discussion is required between Déline and ENR to ensure compliance with the regulations and to ensure that ENR is able to take action if needed.

c) What contingencies are in place if the Nunavut Wildlife Management Board determines that the Nunavut quota must be larger than 339 Bluenose-East caribou?

The participants in the January 20, 2016 meeting to discuss harvest allocation for the BNE herd included representatives from the Kitikmeot Regional Wildlife Board, Kugluktuk Hunters and Trappers Association (HTA), Bathurst Inlet HTA, and Bay Chimo/Umingmaktok HTA. The Nunavut Wildlife Management Board (NWMB) and the Government of Nunavut were also present as observers. During discussions there was general agreement that the proposed harvest allocation was about right and would not require major changes. However, ENR recognizes that the NWMB has to follow its own processes to determine a total allowable harvest for Nunavut and there is no guarantee that the NWMB public hearings will result in a total allowable harvest of 339 for Nunavut. In that case, additional discussion amongst user groups will be needed to how to address any resulting concerns and returning to the SRRB and WRRB for further considerations.

d) Will ENR participate in the Nunavut Wildlife Management Board hearing to set Bluenose-East total allowable harvest?

Yes, ENR is intending to participate in the Nunavut Wildlife Management Board hearing and has notified the board of this intent.

SRRB Information Request Round 1, #'s 4, 6(a) & (b) & Addendum to 6 (b)

4. Proposal for Bull-Only Harvest

ENR recommends a 100% bull harvest (page 5). Cow versus bull harvests is identified as a "hot topic" in the *Taking Care of Caribou* plan (ACCWM 49), and has been much discussed in the Sahtú Region. The "Orange Zone" harvest actions in *Taking Care of Caribou* recommend a majority-bulls harvest. Please provide information about known or anticipated risks and benefits of a bull-only harvest.

The proposed harvest by ENR is 2.5% of the herd and includes a 100% bull harvest recommendation due the very rapid rate of decline in the herd's breeding cows (a 50% decline in just two years). The breeding cows are the single most important segment of the herd in possible recovery. Assuming a bull:cow ratio of 43:100 (last fall sex ratio for the BNE herd in 2015), there are approximately 27,000 cows and 11,600 bulls in the herd. A harvest of 950 bulls would represent 8.2% of the bulls in one year, leaving 91.8% of the bulls. Aboriginal elders have expressed concerns in the past that the harvesting of too many prime bulls in any barren-ground caribou herd is not a healthy practice and that it can ultimately affect the number of females becoming pregnant from strong and healthy males. ENR agrees with the ACCWM plan's recommendation that the prime bulls be spared to do most of the breeding and that the harvest should focus on younger and smaller bulls. If harvest emphasizes small bulls and spares the large bulls, then well over 90% of the prime bulls will remain in the herd. Although one bull can breed many cows, a balanced social structure within the herd is desirable, and depletion of the bull:cow ratio is not desirable. Monitoring of the sex ratio via annual or bi-annual fall surveys will allow the possible effects of a bull-focused harvest to be assessed. Fall classification surveys conducted during the rut of the Bluenose-East caribou herd in 2009, 2013, and 2015 suggest that the sex ratio for that herd has remained stable at around 42 bulls to 100 cows. Bull:cow ratios of about 50:100 are common in caribou (Bergerud et al. 2008). Although the sex ratio at birth in caribou is usually close to 50:50, mortality rates of bulls at all ages are consistently higher (Bergerud et al. 2008).

6. Basis for Suggested Allocation

The proposal indicates that an appropriate allocation was determined by ENR for BNE for 2014/2015, based in part on document harvest "but also on several other criteria including access to other caribou" (page 4).

a) With respect to the 2014/2015, please provide more detail about the grounds used by ENR to determine the allocation for the harvest in 2014/15 and specifically the other criteria used by ENR to arrive at allocation numbers.

Responses to Bluenose-East Caribou Herd Management Proposal SRRB Information Requests Round 1

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Prior to determining an allocation for the BNE herd in early Feb. 2015, ENR, on a request from the ACCWM convened a conference call on BNE allocation to which all user groups and comanagement boards were invited, on Feb. 2, 2015. Unfortunately some groups were not available and the parties on the conference call were unable to come to agreement at that time. Participants on the call indicated that it would not be appropriate for them to make a decision on allocation without all the necessary parties present.

ENR made an interim allocation on the basis of criteria described in a letter from ENR to all parties on Feb. 6, 2015. As set out in the letter, the Minister considered the following:

- The principles set out in the draft Management Plan, Taking Care of Caribou: The Cape Bathurst, Bluenose-West, and Bluenose-East Barren Ground Caribou Herds Management Plan.
- The desire to make a decision which reflects the long-term commitment to cooperative wildlife management recognizes the need for communities to be involved
 in management, the need to strike a balance so that the needs of all users with rights
 to harvest are met, and the need to think about the future of the caribou and manage
 actions accordingly.
- Past harvesting patterns based on reported harvests from the Bluenose-East herd on both a regional and community level for the 2011-2014 harvesting seasons;
- In considering prior year harvests, a recognition that that there are some user groups
 who did not harvest and who have asserted rights to harvest caribou and had to be
 taken into account in the allocation;
- The draft BNE allocation discussed by the ACCWM in late 2010-2011 but recognizing
 and accepting its limitations as a draft document which did not proceed further and
 which did not include all users who have to be considered at the present time; the
 draft allocation was compared against three years of past harvesting patterns to
 come to an average. These calculations are shown in the chart below.
- The management actions set out in the Taking Care of Caribou: The Cape Bathurst, Bluenose-West, and Bluenose-East Barren Ground Caribou Herds Management Plan when the herd is in the orange zone;
- The Taking Care of Caribou: The Cape Bathurst, Bluenose-West, and Bluenose-East Barren Ground Caribou Herds Management Plan notes that the BNE herd usually migrates through settlement areas/regions in the NWT and that the herd is typically harvested by nine communities: Wrigley, Norman Wells, Tulita, Déline, Whati, Gameti, Behchokö, Paulatuk and Kugluktuk.
- The comments and recommendations contained in the community consultation report on the Taking Care of Caribou: The Cape Bathurst, Bluenose-West, and Bluenose-East Barren Ground Caribou Herds Management Plan;
- That the reported harvest as of February 2n, 2015 was 593 Bluenose-East caribou and 308 of those animals are cows;
- Consideration of traditional harvesting patterns and practices;
- The migration patterns of the BNE herd and their typical availability within traditional harvesting areas of each Aboriginal organization;
- The proximity and access to the BNE caribou herd in 2014-2015 in relation to the

- location of communities and the distance to be traveled in order to harvest;
- The provisions of settled land claim agreements, along with obligations to groups who
 have asserted rights and the obligations created by the findings of courts as set out in
 the case law;
- The availability of other barren ground caribou herds including the Beverly Ahiak barren ground caribou herds, which have no limits on Aboriginal harvesting for the 2014-2015 harvesting season and the availability of Bluenose-West caribou herd or some users;
- The availability of other populations of wildlife that can be readily accessed to meet the need for subsistence food;
- The populations of each user group based on statistics maintained by government and in some cases provided by user groups, including the report from the NWT Bureau of Statistics entitled Community Population by Ethnicity, 2001-2014;
- Statistical information on the number of Aboriginal persons who Hunt & Fished During 2008 on a Community Basis as published by the NWT Bureau of Statistics;
- Personal consumption needs for people who have harvesting rights in these areas.
- During the October 2014 Technical Meeting and the November 2014 Leaders Meetings on caribou, there were a few concrete suggestions put forward:
 - Mr. Bailey on behalf of the NWT Métis Nation indicated that they could hunt from the herds in the south and that it was important that the Tłįcho, YK Dene and the Métis north of the lake could hunt this winter.
- It was noted that one community had muskox which could be shared.
- At the Technical Working Meeting in October, there was an indication that the Sahtú were willing to limit their harvesting in the Hottah Lake area to reduce pressure on BNE and Bathurst.
- The ability of ENR to assist with and facilitate community hunts;
- The impact of earlier harvest restrictions on the Bathurst herd and other wildlife populations on Aboriginal harvesters;
- The input received during the course of our in-person meetings on November 7th, 2014, November 28th, 2014, the information received from our inperson meetings with users in December 2014 and January 2015, the information and input received through the written exchange of correspondence and the input received during a conference call on February 2nd, 2015 between Deputy Minister Campbell and affected Aboriginal organizations and co-management boards.

The precedent for this approach was the method used by the GRRB, WMAC-NWT and SRRB in 2006 to determine a sharing formula for the Bluenose-West harvest when a Total Allowable Harvest was being considered for that herd. Past harvest was the main criterion used. A similar approach was also taken for the sharing formula in the Porcupine Caribou Harvest Management Plan in 2010, also relying primarily on estimates of harvest from that herd from user groups.

b) ENR proposes an allocation formula for the next three years (page 5) "based primarily on recent harvest information." Please advise what other factors specifically, if any, were used to determine the proposed allocation level.

As detailed in ENR's letter on BNE allocation on Feb. 6, 2015, recent harvest information was the primary basis for the allocation determined by ENR. Other factors considered were listed in the ENR letter of Feb. 6 and reiterated above. These same factors were considered in proposing an allocation in the management proposal. ENR has proposed that this allocation be used until an allocation formula accepted by all traditional users is available. To that end, a meeting of all users, including parties from Nunavut, was held January 20, 2016 in Yellowknife. The results may form the basis of future allocations for this herd.

Bluenose-East Caribou Interim NWT Harvest Allocation for Winter 2014-2015:

Numbers from ACCWM proposed allocation 2011 for Bluenose-East herd (based on winter 2009-2010 harvest data & related information)

& ENR Bluenose-East harvest data (recorded via community monitors, check-stations and wildlife patrols, based on winters 2010-2011, 2011-2012, 2012-2013, 2013-2014)

	A	В	C	D	Œ
Aboriginal Group	ACCWM 2011 Four winters Draft Proposed (2010-2014)	Four winters (2010-2014)	Average of A & B		Proposed Interim
	Allocation as %	Harvest as %		Allocation as %	Allocation as share of 1800
Tlicho	61	76.2	9.89	61.1	1100
Sahtu	31	18.4	24.7	26.7	480
Dehcho	3	6.0	1.9	2.5	45
Inuvialuit	2	*0	1.0	1.4	25
NMLMN	2	1.0	1.6	2.2	40
Akaitcho (YKDFN)	1	3.5	2.2	3.3	09
NSMA	*0	*0	*0	2.8	50
Total	100	100	100	100	1800
1 1 1					

*No harvest recorded

Approach Used:

- ACCWM Draft Proposed Bluenose-East Allocation from 2011 and 4 last winters of harvest data (2010-2014) given equal weight (used average of % values).
 - Percentages translated to share of 1800 harvest limit recommended by ACCWIM in Jan. 2015.
- Assume harvest reported for Hay River, Ft Smith and Ft Resolution is NWTMN.

ENR Bluenose-East harvest data in NWT (recorded via community monitors, check-stations and wildlife patrols), based on winters 2010-2011, 2011-2012, 2012-2013, 2013-2014

	2010-2011		2011-2012	2	2012-2013		2013-2014		Ave Last 3 winters as %	Ave Last Ave Last 3 winters 4 winters as %
Aboriginal Group	Caribou taken	% of total								
Tlicho	1103	86.8	1150	71.1	1406	75.7	1450	71.3	72.7	76.2
Sahtu	123	9.7	300	18.6	365	19.7	517	25.5	21.3	18.4
Dehcho	*0	*0	34	2.1	7	0.4	25	1.2	1.2	6.0
Inuvialuit	*0	*0	*0	*0	*0	*0	*0	*0	*0	*0
NWTWN**	*0	*0	*0	*0	53	2.8	24	1.2	1.2	1.0
Akaitcho (YKDFN)	44	3.5	132	8.2	56	1.4	17	8.0	3.5	3.5
NSMA	*0	*0	*0	*0	*0	*0	*0	*0	*0	*0
Total	1270	100	1616	100	1857	100	2033	100	100	100

* No harvest recorded

**Assume harvest reported for Hay River, Ft Smith and Ft Resolution is NWTIMN.

EXHIBIT "B"

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From: "Jody Pellissey" <isnortland@wrrb.ca>
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Subject: RE: 2014/15 Allocation of Bluenose East Caribou Herd

Good Morning Ernie,

On behalf of the ACCWM, I would like to make a clarification regarding your attached letter inviting Aboriginal users to discuss the 2014/2015 harvest allocation of the Bluenose-East Caribou herd. The ACCWM appreciates ENR supporting the recommendation to discuss harvest allocation with all Aboriginal users; however, please note that this discussion should also include the wildlife management authorities for each affected region. In this case, the SRRB, WMAC (NWT), and WRRB should be involved with any harvest allocation discussions.

The idea of harvest allocation for the Bluenose-East Caribou herd was discussed by user groups in late 2010 and early 2011 ... a draft harvest allocation, dated May 9, 2011, is attached for your review. Please note that the draft reflects the time and context of the discussion, i.e. not all Aboriginal users were involved in 2010-2011 and, therefore, are not listed in the draft. While the draft was prepared as a discussion piece, future meetings of the group fell through and no formal discussion or support happened.

I will leave it to each ACCWM Member Board affected (SRRB, WMAC(NWT) & WRRB) to respond directly to you to indicate their availability for a conference call on Monday, February 2 at 10:00am MST.

Thank you, JODY

Jody Pellissey
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Sent: January-28-15 4:50 PM

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Subject: 2014/15 Allocation of Bluenose East Caribou Herd

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[Description: Description: Description:

cid:image006.jpg@01CF21B7.7026B370]<http://www.canadastop100.com/diversity/> [Description: Description:

Eluta] http://www.eluta.ca/jobs-at-nwt-government#young:young-more

This e-mail and all attachments to it are confidential and is intended solely for the use of the person to whom it is addressed.

If you have received this message in error, please delete it and any and all attachments to it and notify me immediately by replying to sender.

Draft Harvest Allocation for Bluenose-East Caribou Herd

Based on the most recent harvest information available (2009/10), the following draft allocation of Bluenose-East Caribou per region is proposed:

NWT Regional Harvest (Aug	gust 2009 to July	2010) Draft Allocation (%)
Sahtú	900	31
Tłįchǫ	1800	61
Dehcho	100	3
Inuvialuit	50	2
NWT Métis Nation	50	2
Akaitcho (YKDFN)	10	1
Total	2910	100

Draft Recommendations for ENR & INAC Ministers

- Ensure that appropriate scientific and TK monitoring programs are implemented
- Promote harvester-to-harvester communication (use of single side ban radios to share information between harvesters)
- Promote fall hunts and harvest of alternate country foods
- Identify Bluenose-East caribou herd wintering areas as a high Value at Risk for fire management
- Continue discussions with the Government of Nunavut for identifying opportunities for calving ground protection
- Monitor landscape changes, including fires, winter roads and industrial exploration and development, to assess potential impacts to caribou habitat
- Develop best practices for mitigating effects on caribou during calving and post-calving, including the consideration of implementing mobile caribou protection measures

Exhibit "C"





Re: Proposal for Bluenose-East Herd Harvest Allocation

Dear Mr. Michael Nevelle,

The Inuvialuit Game Council (IGC) and Wildlife Management Advisory Council (NWT) (WMAC(NWT)) attended the Bluenose-East Caribou (BNE) Herd Harvest Allocation meeting held on January 20, 2016 hosted by Environment and Natural Resources (ENR) to discuss long-term harvest allocation for the BNE herd with GNWT, the other traditional user groups and co-management boards.

The IGC and WMAC (NWT) both strongly feel that ENR's interim harvest allocation for the BNE herd is inappropriate and was done without the proper consultation that is required under the *Inuvialuit Final Agreement*. It is recognized that these were interim harvest allocations and would be adjusted following proper consultation with the relevant user groups.

At the meeting, the IGC proposed that a minimum harvest allocation for any User group of 2% be set for Inuvialuit harvesting this herd. The Inuvialuit, NWT Métis Nation, North Slave Métis Alliance, Akaitcho and Dehcho would a 2% harvest allocation each, for a total of 10%. The Sahtu, Tlicho and Kugluktuk (Nunavut) would share the remaining 90%. This proposal would lead to only a 2.2% shift of ENR's interim harvest allocation from the largest user groups; a shift that we feel is

reasonable and fair. The proposal was met with support by most of the other user groups at the meeting.

We are formally submitting this proposal to you and the other Wildlife Management Boards to be considered for the future harvest allocation for the BNE herd.

The ability to track any harvest allocation and the sex of the harvest is key to understanding the effectiveness of conservation management actions, especially for caribou herds that migrate across land claims and harvest is shared as the BNE herd. It is imperative that harvest allocations are done in a way that numbers and sex of harvest is reported and this information is shared between users of the herd.

We look forward to continue working with you on this and other wildlife management matters. Thank you for your time attention to this letter.

Sincerely,

Patrick Gruben Chair, Inuvialuit Game Council Larry Carpenter, Chair, Wildlife Management Advisory Committee (NWT)

CC-

 $\mbox{Mr.}$ Ernie Campbell , Deputy Minister, Department of Environment and Natural Resources, GNWT

Ms. Lynda Yonge, Director of Wildlife, Department of Environment and Natural Resources, GNWT

Ms. Jody Pellisey, Executive Director, WRRB