

Box 1379  
Iqaluit, NU X0A 0H0  
Telephone: (867) 975-7300  
Fax: (867) 975-7320

(GN) has not provided a sufficiently reliable population estimate, nor sufficiently reliable population projections, to justify – pursuant to Section 5.3.3(a) of the *Nunavut Land Claims Agreement* – a reduction in the harvest of the population. The estimate and the projections are based neither on recent scientific surveys nor on Inuit Qaujimagatuqangit.

2. Recommend that the GN and Greenland – in cooperation with affected Nunavut and Greenland communities – conduct in 2009 a survey of the BB polar bear population, so as to produce an up-to-date and reasonably accurate count of the current population.
3. Recommend that the GN and Greenland also conduct in 2009 a further Inuit Qaujimagatuqangit (IQ) Study of the BB polar bear population, and that – for the longer term - the two governments collaborate to formalize and codify the collection of IQ regarding shared polar bear populations in conjunction with the scientific inventory cycle, in order that meaningful scientific and IQ data can be consistently used in determining reliable harvest levels.
4. Recommend that the GN work closely with the relevant HTOs and the Qikiqtaaluk Wildlife Board to fully implement – by no later than 2009 – the GN's overdue commitment to a community-based polar bear deterrent plan for the BB polar bear population.
5. Recommend that the GN work closely with the relevant HTOs and the Qikiqtaaluk Wildlife Board to develop and implement – by no later than 2009 - a *Baffin Bay Polar Bear Compensation Program*, to assist Inuit in financially coping with:
  - (i) The potentially significant future reduction of polar bear sport hunts and the revenues generated by those hunts; and
  - (ii) Property damage and financial losses resulting from encounters with problem bears.
6. Recommend that the Governments of Nunavut, Canada and Greenland negotiate – on an urgent basis – a management agreement for the BB polar bear population, compliant with the *International Agreement on the Conservation of Polar Bears and Their Habitat*, and that equitably addresses the sharing of the harvest between the two countries.
7. Upon receipt of the results from both the 2009 BB polar bear population survey and IQ study - and in light of those results - re-examine the level of TAH for the population, and make any modifications that are necessary.

Mr. Minister, the NWMB is deeply concerned that Inuit harvesters of the BB polar bear population are in serious danger of losing faith in Nunavut's polar bear co-management system. With that concern in mind, the Board's primary worry with respect to determining a potential modification to the level of TAH for the BB polar bear population – a worry which reflects the almost universal apprehension of harvesters - is that the GN's population estimate



relies upon model simulations that are based on a mark-recapture study which commenced approximately 14 years ago and that ended 3 years later, in 1997.

The combination of simulations based upon data more than a decade old and consistent up-to-date eyewitness accounts from Inuit of a massive increase in polar bear sightings and interactions, leads to widespread skepticism that the BB population is in decline. In fact – based upon their own observations – literally all of the Inuit parties at the NWMB's hearing came to the opposite conclusion.

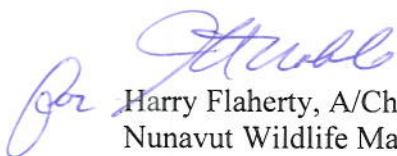
While the NWMB and the GN must not be afraid to make difficult wildlife management decisions, it is essential that those decisions be supported by current, reliable and persuasive evidence. Accordingly, the NWMB's decision in this matter attempts to maintain - for the 2008 harvesting season only - the status quo in terms of harvest levels, while encouraging the gathering of more up-to-date scientific and IQ evidence concerning BB polar bear population levels. Recognizing the potentially significant costs involved, the NWMB is prepared to contribute funding from the Nunavut Wildlife Research Trust and the NWMB Studies Fund towards a suitable 2009 BB polar bear population survey and IQ study.

The Board is also hopeful that the GN will – over the course of the next year – be able to make significant progress in addressing Inuit concerns regarding both polar bear deterrence and compensation issues. In addition, and as addressed in the decision, there is a pressing management need to make headway in developing a shared management approach with Greenland concerning the BB polar bear population.

The NWMB understands that – if accepted – its decision places a significant onus on the GN to take a number of meaningful steps in a relatively short period of time. Please be assured that the Board is prepared to assist the GN, to the extent reasonably possible, in promptly addressing the various measures that will – in due course – lead to a further and considerably more informed NWMB/GN co-jurisdictional examination of the level of TAH for the BB polar bear population.

If you have any questions or concerns regarding this letter, please do not hesitate to contact the NWMB.

Yours sincerely,



Harry Flaherty, A/Chairperson of the  
Nunavut Wildlife Management Board

## **APPENDIX A**

### **TO THE SEPTEMBER 17<sup>th</sup> 2008 NWMB DECISION LETTER CONCERNING THE LEVEL OF REGIONAL TOTAL ALLOWABLE HARVEST FOR THE BAFFIN BAY POLAR BEAR POPULATION**

The following is a summary of key points made during the NWMB's hearing process.

**SUMMARY OF GN POSITION:** See Tabs 8 to 11 and 14 to 17 of the Hearing Binder, the Hearing Transcript, and the May 9<sup>th</sup> 2008 supplementary submission entitled, *Baffin Bay Polar Bear Population*. See also Tabs 5, 7, 12 and 13 of the Hearing Binder:

- A GN mark-recapture study conducted from 1994 to 1997 produced a reliable 1997 estimate for the Baffin Bay polar bear (BB) population of  $2,074 \pm 266$  (Binder, Tab 15, p.1). No further studies have been conducted since that time. The next study is scheduled to commence in 2014 (Binder, Tab 15, page 1).
- From 1993 to 2004, the combined BB Nunavut community quota (3 communities – Clyde River, Qikiqtarjuaq and Mittimatalik) was 64 polar bears (Binder, Tab 9, p.2, and Transcript, p.129, lines 25-26; see also NTI's submission in the Binder, Tab 20, p.1).
- Starting in 2005 - and based primarily on Inuit Qaujimajatuqangit (IQ) observations that polar bears had increased - the NWMB approved a BB regional total allowable harvest (TAH) of 105 polar bears – a 64% increase of 41 bears (Transcript, p.378, lines 19-23; Binder, Tab 9, p.2).
- Shortly thereafter, the GN received new harvest information from Greenland, indicating much higher than expected harvest levels by Greenland harvesters (Transcript, p.165, lines 13-15). In fact, Greenland's harvest statistic documents revealed an increase from 68 per year (1993-1997) to about 129 per year (Binder, Tab 9, p.2).
- The average annual Greenland harvest in 2004 and 2005 was approximately 185 per year (Binder, Tab 9, p.2).
- Simulations based upon the 1994-1997 mark-recapture study suggest that the population declined from 2,074 in 1997/1998 to 1,546 in 2003/2004 (Binder, Tab 9, Appendix II). At 2003/2004 population numbers – which have further declined in the years since – the GN estimated in 2005 that a combined Greenland - Nunavut total of 69 bears could be sustainably taken annually (Binder, Tab 9, Appendix II). In 2008, the GN estimated that a combined total of 90 bears could be sustainably taken annually from a population of 1,546 bears (Binder, Tab 15, final graph; Transcript, p.65, lines 3-6) – although “*even with 90 bears taken a year, population size may still decline* (Tab 15, p.1).”



- Greenland reduced its harvest of BB polar bears by 60% in 2006 (Transcript, p.129, lines 23-25). In 2007, Greenland harvested 74 bears, and its 2008 quota was 69 (Transcript, p.129, lines 8-10).
- The GN is not comfortable making estimates of the current BB population size because “*Ten years is about the limitation of simulations to produce population estimates*” (Transcript, p.166, lines 6-8).” However, the 5-year mean harvest for 2002-2007 was 232; the 3-year mean harvest for 2004-2007 was 219, and the 2006-2007 harvest was 174 (Binder, Tab 15, p.1). Accordingly, subject to the caveat concerning reliance on data over 10 years old, the GN’s projected BB population number for 2008 is about 1,000 animals (Transcript, p.96, lines 7-12).
- Using capture data from 1976 through 1997, the GN has concluded that the body condition of BB polar bears has decreased over time – a decrease that was more rapid in the 1990’s. These data also indicate that body condition is related to average annual ice condition – the more ice, the better the body condition. Ice coverage in Baffin Bay has been decreasing since the 1970’s, and is expected to continue to decline (Binder, Tab 15, p.1).
- Even if only 90 bears were harvested per year, population size may still decline because it is likely that demographic rates are lower now than in the 1990’s, due to declines in ice and body condition (Binder, tab 15, p.1).
- The 2005 *Draft Report on Inuit Knowledge* [from Mittimatalik, Qikiqtarjuaq and Clyde River] *Regarding Climate Change and the Baffin Bay Polar Bear Population* found that:
  - 83% of respondents believed the BB polar bear population had increased because of more bear sightings near communities, cabins and camps, and because of more bear sign in areas not previously used by bears;
  - 62% of respondents believed that bears are now less fearful of humans;
  - 94% of respondents believe that bears are causing more damage now than in the past;
  - 57% of respondents reported that bears tend to be skinnier now;
  - Respondents noted general trends indicating that the floe edge is closer to the shore now, the sea ice is thinner, there are fewer icebergs and glaciers have receded; and
  - People were not sure whether climate change was affecting polar bears or what those effects might be (Binder, Tab 14, p.2).
- “*Under the current harvest conditions and using demographic data from Taylor et al. (2005) there is a 100% likelihood of population decline* (Binder, Tab 15, p.1).”
- In each of 2005 to 2008, the Canadian Polar Bear Technical Committee (PBTC) – composed of scientists and experts in traditional knowledge - determined that there was a 100% likelihood of decline in the BB population due to harvest. In 2005, the international IUCN Polar Bear Specialist Group (PBSG) determined that the BB population is in decline. NTI is a voting member of the PBTC, and an

invited specialist at the PBSG (Transcript, p.14:07:58-14:08:34, and p.284, lines 14:08:38-14:09:05).

- PBTC status tables include Inuit knowledge, with status trends qualified by information from local people. “...the most recent 2008 status table, it includes Inuit knowledge, and there is nothing that was presented in the Baffin Bay population in this past four years (Transcript, p.286, lines 14:13:01-14:13:23, and p.287, line 14:13:28).”

**SUMMARY OF NUNAVUT TUNNGAVIK INC. (NTI) POSITION: See Tab 20 of the Hearing Binder, and the Hearing Transcript. See also Tab 7 of the Hearing Binder:**

- The GN’s new BB polar bear population estimate of 1,546 bears is based on model simulations and not on any recent surveys or IQ (Binder, Tab 20, p.2).
- The standard of error for the new population has increased significantly – 1,546 ± approximately 400 bears (Transcript, p.254, lines 11:47:23 to 11:47:39).
- What the GN has provided is not a reliable population inventory, it is a simulation. The NWMB should seriously examine the GN presentation for the rationale of the different graphs it has presented. The NWMB needs to investigate the simulation modeling because there are a lot of assumptions and judgments made in the programming exercise (Transcript, p.254 and 255, lines 11:48:00-11:48:11 and 11:48:50-11:49:02, p.302, lines 14:43:39-14:43:54, and p.303, line 14:43:56).
- The GN and Environment Canada made a commitment to NTI in August of 2007 to communicate with the Greenland Government on the issue of BB polar bears, but no Canada-Greenland meeting has taken place (Binder, Tab 20, p.2).
- It was felt by Inuit that the IQ presented at the NWMB’s April 2007 Western Hudson Bay public hearing was not given the same respect or value as western science when it came time for the NWMB to make a decision (Binder, Tab 20, p.2).
- NTI is concerned that the lack of respect for IQ by the NWMB in the WHB polar bear hearing will continue in this BB polar bear hearing (Transcript, p.41, lines 10:46:26-10:46:53).
  - NWMB response: “...the Board did provide last April, will provide in this hearing, and will continue in the future to provide equal respect for both science and Inuit Qaujimagatuqangit and will equally value both forms of knowledge...a legitimate disagreement among reasonable people is what amount of weight should be given to any specific piece of Inuit Qaujimagatuqangit knowledge or scientific knowledge. And the weight depends upon how relevant, thorough, reliable and persuasive a particular piece of knowledge is in a specific set of circumstances... (Transcript, p.267, lines 13:40:39-13:40:55, and p.268, lines 13:41:41-13:42:06)”



- The proposed reduction of 41 bears or more for Baffin Bay will have a huge impact on the affected communities. In 2007, the 3 communities combined had a total of 35 sport hunts at an approximate value of \$25,000 each. That adds up to \$875,000 in lost income to those communities (Binder, Tab 20. p.4).
- RISKMAN simulation modeling exercises need to be thoroughly examined, because there are many inputs into the RISKMAN modeling tool. It is a useful tool, but respective weight needs to be given to it (Transcript, p.243, lines 11:28:51-11:29:03, and p.244, lines 11:29:06-11:29:43).
- The NWMB needs to hear from Greenland hunters that harvest from the BB population regarding their (new) quota/management system (Transcript, p.253, lines 11:45:22-11:46:10, and p.254, line 11:46:14).
- “...it’s clear that the board is lacking key information. And in order to avoid future conflict, some points of consensus with all of the available information needs to be attained (Transcript, p.244, lines 11:30:35-11:30:59).”
- The BB polar bear population did not decline between 1997 and 2004. NTI believes that there are more bears now. There are too many Baffin Bay bears (Transcript, p.282, lines 14:05:54-14:06:12, and p.283, lines 14:07:40-14:07:44).
- Nunavut has the best polar bear management system in the world (Transcript, p.292, lines 14:22:18-14:22:40).
- NTI recommends that:
  - the GN and affected communities re-open the BB polar bear MOU to allow for adequate consultation and discussion on management concerns;
  - the GN, Canada and Greenland discuss BB polar bear management concerns and identify management recommendations for both jurisdictions; and
  - no changes be made by the NWMB to the current Nunavut TAH of 105 (Binder, Tab 20, p.4).

**SUMMARY OF QIKIQTAAALUK WILDLIFE BOARD, HTO AND ELDER POSITIONS: See Tabs 18 and 19 of the Hearing Binder, the Mittimatalik HTO submission entitled, *Baffin Bay Polar Bear Concerns from Pond/Mittimatalik HTO*, the Nattivak HTO submission entitled, *Qikiqtarjuaq BB PB Population Concerns*, and the Hearing Transcript:**

- It is necessary to have an accurate count of the BB polar bear population (Binder, Tab 18, p.1).
- The 3 affected HTOs and the GN should work together to count the population during the 2008-09 season. Once the count has been documented and confirmed by the GN, the NWMB and the three HTOs - and if the results prove that the population is in decline - the HTOs will have to approve the Minister’s initiative (Binder, Tab 19. p.1).
- Polar bear quotas should not be changed until the GN can produce accurate survey results (Mittimatalik submission, p.1).

- The GN has to cooperate with the HTOs in doing its work, and the HTOs have to be involved in the research process (Transcript, p.363, lines 17:07:41-17:07:56, and p.364, line 17:07:59).
- Mr. Sangoya (Elder): We have not seen any data more recent than 1997 – *“In that case, to me it’s just a shot in the dark that was simulated through the computer, and not really based on recent data...”* (Transcript, p.109, lines 24-26, and p.110, lines 1-3)”
- *“...if we use today’s research data, that will be more appropriate, and that will be right to the point, and everyone in this room would understand. But what is causing us a barrier is that we are asked to decide on cutting everything back based on research that is dated in the past* (Transcript, p.131, lines 10-16).”
- If there are to be tag reductions, the GN must introduce a compensation package of no less than \$25,000 per tag (Binder, Tab 19, p.1; Transcript, p.352, lines 16:43:51-16:44:13).
- The compensation package has to be in place before the quotas are reduced (Transcript, p.131, lines 15:05:17-15:05:20).
- As part of a compensation package, the GN needs to build sturdy cabins in the hunting area, provide electric fencing, as well as rifles, blanks, etc. (Binder, Tab 18, p.1. See also the Nattivak submission, p.1).
- The GN needs to identify polar bear deterrence measures, such as crackers, batons, electric fences, ammunition and holding cages (Nattivak submission, p.1).
- *“...give us a way of protecting ourselves. Give us the wires and the electricity we can put around our tents so that none of us will be killed by these bears when we go camping* (Transcript, p.354, lines 16:47:26-16:47:38).”
- *“If I lose something because of a polar bear, there’s no way to get back my equipment. There’s no such thing right now* (Transcript, p.354, lines 16:47:58-16:48:10).”
- There should be insurance for Inuit against property damage by polar bears (Binder, Tab 18, p.1; Transcript, p.362, lines 17:05:17-17:05:29).
- With respect to polar bear control, only wildlife officers have access to the necessary equipment. However, they are not always around the community when you need them. Accordingly, the GN has to make that equipment available to the HTO as well (Transcript, p.354, lines 16:48:31-16:48:48, and p.355, lines 16:48:53-16:49:07).
- Defense kills should come out of a special quota (Binder, Tab 18, p.1).
- The GN needs to supply hunters with more information, including “Track and Kill Records” and the number of defense kills in the 3 communities (Nattivak submission, p.1).
- For the last several years, there appear to be less seal pups and juvenile seals (Nattivak submission, p.1).
- The BB polar bear population is thriving according to hunters’ observations (Nattivak submission, p.1).



- Mr. Kuniluisie (Elder): Polar bears prefer thinner ice. They hang around the floe edge, looking for water, and are used to hunting that way (Transcript, p.105, lines 14-18).
- Mr. Kuniluisie: Global warming may be contributing to the poor condition of the bears, but the population is still increasing and the seals are not (Transcript, p.107, lines 12-16).
- For any animal, once the population numbers get too high, the first thing that happens is the animals lose weight. This is why we are saying that the polar bears are increasing (Transcript, p.143, lines 23-26, and p.144, lines 1-2).
- If you've actually seen a specific number of bears, you tend to believe what you actually see, but just working through paper back and forth, you're not really going to convince the harvesters (Transcript, p.153, lines 14-19, and p.154, lines 7-10).
- *"I came by Broughton by snowmobile. I saw 27 bears and bear tracks that had cubs, and five of them had three cubs... there's a lot of bears in that area with cubs (Transcript, p.145, lines 9-13)."*
- Recently, we traveled 65 kilometres and found 12 polar bears – one had a single cub, ten had two cubs and one had three cubs. We saw female bears every single day that had cubs (Transcript, p.185, lines 6-13).
- While seal-hunting, in a two-week period, we saw 73 polar bears. Afterwards, a person went polar bear hunting, and in two days he saw over 32 bears (Transcript, p.206, lines 09:35:46-09:37:05).
- *"We saw 300 polar bears from that one place [Dundas Harbour], without using binoculars, polar bears that walk by. And this is the truth, we saw 300 in one day. (Transcript, p.208, lines 09:39:33-09:39:49)"*
- *"Back in '98 we went polar bear hunting [towards Clyde River]. There weren't too many... I just came back from there the other day... we did see roughly 10, 20; and if I was looking for bears, I could probably get more than that or get to see more than that in one day. (Transcript, p.214, lines 09:50:57-09:51:34)"*
- *"...to see what we have seen and to be told what we were told today, that contradicts what we see. (Transcript, p.170, lines 23-25)"*
- *"I would urge you to defer this issue until such time that there's enough evidence of the population... by the survey. I mean that there has to be a backing document to tell us that the population is getting low. To our experience and going out there, there's more bears that we have seen this year than ever before. We go out there every year. In the old days, it was very, very unusual to see even tracks. (Transcript, p.216, lines 09:55:57-09:56:42, and p.217, lines 09:56:48-09:56:52)"*

**SUMMARY OF WORLD WILDLIFE FUND POSITION: See Tab 21 of the Hearing Binder:**

- The projected swift reduction and eventual loss of sea-ice habitat is of greatest significance for the long-term survival prospects of polar bears (Binder, Tab 21, p.1).

- A highly precautionary approach should be taken with respect to the future management of the BB polar bear population (Binder, Tab 21, p.2).
- WWF strongly supports a harvesting moratorium until the population has increased to the target number of 2074 (Binder, Tab 21, p.2).
- Previously un- or under-reported harvests by Greenland Inuit is a significant part of the current problem, and some measures to address this are being put in place (Binder, Tab 21, p.2).
- The 1973 International Agreement on the Conservation of Polar Bears and their Habitats “*emphasizes the need for high quality ‘research relating to the conservation and management of the species’*”. However, adequate information is not available for most Canadian polar bear populations (Binder, Tab 21, p.3).
- WWF urges the NWMB and all key parties to ensure that all Articles in the International Agreement are fully respected (Binder, Tab 21, p.2).

**SUMMARY OF NWMB CONCERNS: : See Tab 6 of the Hearing Binder, and the Hearing Transcript:**

- S.7.7 of the 2004 BB Polar Bear MOU [the GN will ensure the formulation and implementation of a polar bear deterrent plan within one year of the signing of the MOU] has not yet been implemented, although the GN is moving forward with this overdue commitment - the GN is currently in the process of hiring a problem wildlife specialist (Transcript, p.85, lines 14-26, p.86, lines 1-26, and p.87, lines 1-2).)