

## ューシィア ドレイーへト・イベ 60Lトペイペ Nunavunmi Anngutighatigut Aulapkaijitkut Katimajiat Nunavut Wildlife Management Board

ヘュ⋖<sup>ݛ</sup>ርムーσჼ >ÞLゼ゚ヮ╸ ᢦჼᠨᠯᠬᢇᠠ ᢦᠫᡣᢗÞᠳᡥᠬ ᠘᠘৫ ᠖ÞᲑLᠳᠣᡥᠬ ᢦᡃ᠘᠘᠖᠖ÞᲑᲡᠬᠠ᠘᠘৫ ᠖ÞᲑ᠘ᠳᡥᠬ Tammaqtailinahuarniriit anngutighat atuqhugit Inuit qaujimajatuqangillu ilihimaniillu ilitquhiannin Conserving wildlife through the application of Inuit Qaujimajatuqangit and scientific knowledge

October 27th 2011

Hon. Dan Shewchuk Minister of Environment Government of Nunavut

Dear Minister Shewchuk:

Re: October 18<sup>th</sup> 2011 decision of the Nunavut Wildlife Management Board concerning the level of regional total allowable harvest for the Western Hudson Bay Polar Bear Population

#### 1. THE NWMB DECISION

On October 18<sup>th</sup> 2011, the Nunavut Wildlife Management Board (NWMB or Board) held its decision-making meeting with respect to your August 18<sup>th</sup> 2011 "*Proposal for NWMB Decision*" (Proposal) concerning the total allowable harvest (TAH) for the Western Hudson Bay (WH) polar bear sub-population. That decision-making meeting was the culmination of a written hearing process that formally commenced with the issuance of a public notice on September 9<sup>th</sup> 2011. The Board subsequently received and carefully considered written response submissions from Nunavut Tunngavik Inc., the Kivalliq Wildlife Board, Environment Canada, Parks Canada, the Ontario Ministry of Natural Resources, the IUCN Polar Bear Specialist Group, the World Wildlife Fund – Canada, and the Chairperson of the Federal-Provincial Polar Bear Technical Committee.

Following its consideration of the Proposal and all of the submissions, the Board unanimously passed the following resolution:

"RESOLVED that - pursuant to Sections 5.3.3(b) and (c), 5.6.16 and 5.6.17 of the Nunavut Land Claims Agreement, and for the 2011-2012 harvesting season only - the NWMB approve a regional total allowable harvest (TAH) of thirty-eight (38) polar bears for the Western Hudson Bay sub-population, and that over-harvests from 2009-2010 and 2010-2011 – calculated pursuant to the flexible quota system to be seventeen (17) bears – be subtracted from the TAH, resulting in an effective TAH of twenty-one (21) bears during the 2011-2012 harvesting season."

Pursuant to Section 5.3.8 of the *Nunavut Land Claims Agreement* (NLCA), the NWMB hereby forwards its decision to you.

# 2. THE IMPORTANCE OF *INUIT QAUJIMAJATUQANGIT* IN CONSIDERING AND DECIDING UPON THE TAH FOR WESTERN HUDSON BAY POLAR BEARS

In considering and deciding upon the TAH for the WH polar bear sub-population, the NWMB is required to apply not only scientific knowledge, but also *Inuit Qaujimajatuqangit* (IQ) - see, for instance, NLCA Sections S.5.1.2(e), 5.1.3(a)(i) and (b)(i), (iii) and (v), 5.1.4 and 5.1.5, and sections 1(2)(f), 8 and 9 of the *Wildlife Act*). All of this is in keeping with specific Canadian national and international commitments to recognize the value of aboriginal traditional knowledge.<sup>1</sup>

It is therefore essential – particularly in the current difficult circumstances - that the NWMB and the Environment Minister carefully consider, and assign appropriate weight to, both science and IQ in their co-jurisdictional consideration of an appropriate level of TAH for the WH polar bear sub-population. In this instance, an essential source of IQ comes from the direct observations of hunters, community members and qaujimaniliit (persons recognized by their communities as possessing in-depth IQ) living on a daily basis alongside WH polar bears.

### 3. EVIDENCE AND ARGUMENTS CONSIDERED

The main evidence and arguments concerning the WH polar bear sub-population remain essentially the same as first presented during the NWMB's 2007 WH public hearing process:<sup>2</sup>

- Western science indicates that the sub-population is declining, and that conservation is a primary concern; and
- ➤ IQ indicates that there are more bears than ever before in and around the communities, that a significant number of those bears are dangerous, and that public safety is a primary concern.

With respect to scientific evidence and arguments, the Board received a number of clear and helpful submissions which reinforce the scientific position that the fecundity, productivity and population numbers of WH bears are continuing to decline. Dr. Lunn's June 2011 Report ("Western Hudson Bay Polar Bear Subpopulation Update"), for instance, projects:

<sup>&</sup>lt;sup>1</sup> See the Preamble, and Articles 8(j) and 10(c) and (d) of the 1992 International *Convention on Biological Diversity*. See also the *Canadian Biodiversity Strategy: Canada's Response to the Convention on Biological Diversity* (Minister of Supply and Services Canada, 1995), in particular pages 2, 3, 4 and 49.

<sup>&</sup>lt;sup>2</sup> The NWMB also considered such evidence in making its September 15<sup>th</sup> 2010 decision to approve an increase of six (6) bears to the WH TAH for one year only (2010-2011), due to urgent and serious public safety concerns. See the Board's September 29<sup>th</sup> 2010 letter to the Nunavut Minister of Environment.

- > sub-population numbers of less than 700 bears as of September 2010,
- declines of 17 to 22% in litter production rates over the last 15 years,
- > declines of 12 to 18% in autumn recruitment of cubs over the last 15 years, and
- > an ongoing population decline even in the absence of any harvesting.

At the same time, it is important to point out that the Report is a preliminary assessment that presents an interim status of the WH sub-population, and that the population size is projected using a simulation model that includes estimates of abundance and demographic parameters from 2004, as well as harvest data from 2005 to 2010.

The Board also received compelling IQ evidence and arguments that recount:

- ongoing, regular and dangerous encounters with polar bears, including some by school children.
- > increasing occurrences of damage to property,
- disturbing changes in bear behavior,
- > significant numbers of defense kills, despite restraint by community members in response to problem bears,
- > the view that WH bears are part of a shared population with neighboring sub-populations, in particular the much larger Foxe Basin sub-population,
- > the community perception that polar bears are considered by decision-makers to be more important than people and their safety, and
- growing concerns about community trust in the integrity of the polar bear management system.

A summary of the Proposal and of the response submissions is attached as Appendix A to this decision letter. Copies of the full Proposal and all written submissions are available from the NWMB's *Hearing Registry* on the Board's website (<a href="www.nwmb.com">www.nwmb.com</a>).

In addition, all of the hearing parties, as well as the NWMB, are awaiting the results from the Government of Nunavut's 2011 distance-sampling aerial survey on the abundance of the WH sub-population, and from the updated analysis by Drs. Lunn and Regehr of all WH mark-recapture and harvest data through to 2010. In combination with relevant IQ, those results may produce a new population estimate and demographic rates that will be available for the NWMB's consideration of the TAH for 2012-2013 and beyond.

#### 4. REASONS FOR THE NWMB DECISION

As in 2007 and 2010, the NWMB was confronted once again in 2011 with divergent evidence and arguments concerning the status of the WH polar bear sub-population, and had a very difficult decision to make as a result. In the end, after thoroughly weighing all of the evidence and arguments, the Board decided that public safety and public confidence in the polar bear

management system are most essential in the present circumstances.<sup>3</sup> Accordingly, the NWMB made an interim decision, applying only to the 2011-2012 harvesting season, to increase the available harvest of bears and to address the high number of defense-kills accumulated over the last two years. The Board is prepared to make a new decision for the next harvesting season, duly informed by the results of the 2011 aerial survey, the updated analysis of relevant data, and any new or revised IQ.

The specific reasons for the NWMB's present decision are the following:

- Inuit in the WH communities are under siege from WH polar bears, with the number of
  defense kills in the last few years having soared. Personal safety and the protection of
  property are paramount. A temporary increase in the TAH is justified under NLCA
  S.5.3.3(c), as it will help to ensure that Inuit do not find themselves in even greater
  danger by hesitating to make legitimate defense kills because of concerns over depleting
  the minimal TAH.
- 2. Inuit in the WH communities are questioning the integrity of the polar bear management system, and wondering if polar bears are considered more important than people and their safety. An essential objective of NLCA Article 5 is "...the creation of a wildlife management system that... invites public participation and promotes public confidence, particularly amongst Inuit... [NLCA S.5.1.3(b)(v)]". This decision is justified under NLCA S.5.3.3(b) because it gives effect to NLCA S. 5.1.3(b)(v).
- 3. The current carrying capacity of WH polar bear habitat is insufficient for the present abundance level of bears. As a result, whatever the actual quantity of WH bears are, an unprecedented number of them are routinely threatening human lives and property. A reasonable response is to increase the TAH.
- 4. Both scientists and qaujimaniliit are in agreement that polar bears can and do cross sub-population boundaries. Inuit understand WH polar bears to be part of a shared population with neighboring sub-populations, in particular the much larger Foxe Basin sub-population.

#### 5. CONCLUSION

Mr. Minister, despite some fundamental differences of opinion among the hearing parties concerning the appropriate management measures necessary for the WH polar bear sub-population, there is a shared overall concern about the effects of climate change on WH polar

<sup>&</sup>lt;sup>3</sup> Both the Nunavut Minister of Environment and the NWMB has previously agreed that public safety is the highest priority in polar bear management. See, for instance, your December 11<sup>th</sup> 2009 correspondence to the NWMB concerning public safety issues related to the Baffin Bay polar bear sub-population (page 2), and the Board's February 17<sup>th</sup> 2010 response letter (page 2).

bears and their habitat. Clearly, more frequent monitoring and scientific and IQ research are necessary, as is the urgent need for more effective climate adaptation measures to reduce conflicts between polar bears and humans along the Kivalliq coastal area. Please be assured that the Board remains committed to working cooperatively with you, and to maintaining strong communications concerning appropriate management actions for the WH polar bear sub-population.

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

Yours sincerely,

Mikidjuk Akavak, Chairperson of the Nunavut Wildlife Management Board

## **Summary of Hearing Party Positions**

The following is a brief summary of the main positions and associated arguments/evidence provided by the Government of Nunavut through its "*Proposal for NWMB Decision*" (Proposal) and by all of the other hearing parties through their written response submissions. Copies of the full Proposal and all written hearing submissions are available from the NWMB's *Hearing Registry* on the Board's website (<u>www.nwmb.com</u>).

## Government of Nunavut - Department of Environment

#### Position:

- For 2011/2012, the TAH for the WHB subpopulation should be 4.5% (Taylor et al. 1987) of the most recent population estimate (935, Regeher et al., 2007), resulting in a TAH of 21 to be allocated by the Kivalliq Wildlife Board (i.e. 42 bears, minus 4 removals from Manitoba, minus 17 bears from overharvests from the 2009/2010 and 2010/2011) (TAB 02, p. 1-2)
- The decision was requested by October 10, 2011 as a Ministerial Management Initiative as per S 5.3.25 of the NLCA, as the WHB harvest typically begins in October. (TAB 02, p.1)

- The recommended increase considers the historical Manitoba removal rate of about 8 bears per year in the Churchill area (although this has been reduced recently to less than 4) and Inuit knowledge of increased densities north of Churchill which suggests that the WHB population has increased (TAB 02, p.2)
- Current and historical information from Nunavut hunters contradicts scientific information that the population declined from approximately 1200 to 935 in 2004 over the last 20 years due to the combined effects of sea-ice decline causing reductions to survival and recruitment rates and unsustainable harvest removals (TAB 02, p.2)
- ➤ Keeping removals from WH to 8 per year has been problematic. Removals for control actions in Nunavut after the regular harvest have exceed the TAH (8 polar bears) every year since 2009/2010 (TAB 02, p.2)
- ➤ Recognizes that there are different perspectives between TEK and scientific knowledge in that climate change may have altered polar bear distribution patterns and behaviour giving Inuit hunters the impression that there are more bears because there are more bear-human encounters. However, it could also be that both population numbers and

- population performance have been underestimated by scientific studies that failed to include the entire summer retreat area used by the WHB subpopulation (TAB 02, p.3)
- Two surveys (Peacock et al. 2008; unpublished aerial survey in 2010) documented significant densities of polar bears in areas un-sampled by Regehr et al. 2007 (TAB 02, p.3)
- ➤ CWS has continued mark-recapture sampling in Manitoba and a comprehensive aerial survey is planned in the summer of 2011 (TAB 02, p.3)
- ➤ The TAH increase would maintain the integrity of the Flexible Quota system across Nunavut and would demonstrate appropriate consideration for current TEK (TAB 02, p.3)
- A long-term TAH should be set next year following the receipt of new information and improved support from communities (TAB 02, p.3)
- Any demographic impacts from opting for historical levels for a single season will be minor compared to the conservation benefits from accommodating views of local hunters and scientific uncertainty (TAB 02, p.3)
- The GN-DoE extension survey supports Inuit observations of polar bear north of the CWS-MDOC study area. However, because all marked and recaptured individuals were also included in the CWS-MDOC analysis, polar bears encountered North of Seal River were not thought to be spatially distinct sub-group of WH population during the time of year when most of the sampling in Regehr *et al.* (2007) was completed. In other words, WH polar bears north of the CWS study area did not appear to be distinct from those summering in the CWS study area. (TAB 04, p.2)
- ➤ Harvest data (1984-2004) also does not support the notion of an under-sampled area in the WH population summering north of the CWS study area. (TAB 04, p.2)
- Failure to sample the entire area may have caused population numbers and survival rate to be underestimated in Regehr *et al.* 2007. The degree to which it was underestimated could not be quantified, but is likely minor because of the mixing in the study area boundary. (TAB 04, p.2)
- The GN-DoE extension survey still supports Regehr *et al.*'s 2007 assertion of population decline and reduced population productivity in the WH polar bear population. (TAB 04, p.2)

### Kivalliq Wildlife Board

### Position:

➤ A TAH of 21 polar bears for the 2011-2012 season is advisable, in accordance with the GN-DoE's proposal. The KWB however is of the position that a larger harvest (38) could be sustainable at this time. (TAB 11, p.2)

## Evidence / Arguments:

- ➤ KWB and its members have been compliant with past recommendations for reductions/eliminations. (TAB 11, p.1)
- ➤ Community residents have had close encounters with bears where human safety was severely compromised, yet defense kills have been limited to the minimal amount possible. (TAB 11, p.1)
- ➤ KWB has been penalized long enough and should now be allowed to harvest polar bears in WHB. (TAB 11, p.1)
- Survey data, if conducted properly and thoroughly, should demonstrate a healthy and abundant WH polar bear population as KWB have been saying for years. (TAB 11, p.1)

### Nunavut Tunngavik Inc.

#### Position:

Supports the proposal put forward by GN-DoE (TAB 08, p.1)

- ➤ Public safety is at risk due to regular encounters with bears in the associated communities (e.g. school children have had bear encounters), there has been increasing occurrences of damage to property and there is a public perception that bears are more important than people (TAB 08, p.1)
- ➤ Not all recommendations from the NWMB's 2007 decision have been implemented (TAB 08, p.1)
- A critical management tool is the support and cooperation of the community with the management system in place (TAB 08, p. 1-2)
- Concern about the delay in analyzing Environment Canada data and producing an updated population estimate (i.e. was expected to be presented at 2011 PBTC meeting) (TAB 08, p.2)
- Approach by GN is an attempt to maintain the public trust and support as well as provide a management tool to harvest bears in a sustainable manner (TAB 08, p.2)
- ➤ The target population for the WHB subpopulation of 1,400 was unrealistically set. A lower population level is more typical and therefore more appropriate for conservation based on sustainable use. (TAB 09, p. 22)
- ➤ Inuit consider the current population to be higher than it has ever been in the region when compared to historical population levels extending from the early 1900s up to the 1970s (TAB 09, p.24)

- Inuit indicate that the situation has become more difficult because of observed changes in polar bear behaviour due to human related activities, as historically (1930s to 1970s) bears would flee upon an encounter with a human and today bears are not fearful of humans. (TAB 09, p.24-29)
- ➤ Inuit understand WHB polar bears to be part of a shared population with neighbouring groups, in particular the Foxe Basin group that is much larger. Simulation modeling does not account for any exchange between these groups (TAB 09, p.51)

#### **Environment Canada**

### Position:

An increase in TAH for the WHB subpopulation should not be supported at this time and the consideration of an increase in TAH should wait until the results of the recent aerial survey and the updated analyses of capture and harvest data are completed (TAB 12, p.2)

- The 4.5% maximum sustainable yield is based on healthy polar bear populations, and should not be applied to any population that is showing evidence of declines in population size and productivity. As identified by Regeher et al (2007) and confirmed by Peacock and Taylor in 2007, bears in WHB are showing both population decline and significantly reduced population productivity (TAB 12, p.1)
- ➤ The population estimate of 935 was for 2004 and analysis indicated that the population size would continue to decline; a recent report (Lunn 2011) estimates that the current population size could now be 700 (a decline of 235 over 7 years) based on estimates of abundance and demographic parameters from 2004 and harvest data from 2005-2010. (TAB 12, p.1)
- ➤ Recognizes that ATK reports indicate an increased population size of bears in WHB, however EC notes that in the GN-DoE Request for Decision (RFD) it is recognized that these observed increases in bear densities on land may be due to changes in sea ice dynamics within Hudson Bay (TAB 12, p.2)
- The GN RFD commented on two recent surveys which documented significant densities of bears in the northern region of WHB that lend support to the notion that previous calculations may have underestimated the subpopulation size. However, both reports concluded that bears occurred at low densities in the northern portion of the WHB area, and had been accounted for in previous population estimates (TAB 12, p.2)
- ➤ GN-DoE recently conducted an aerial survey of WHB and a revised population estimate should be available soon. Dr. Nick Lunn and Eric Regehr are also currently completing an updated population estimate and new demographic rates from capture and harvest data (through 2010). Both of these new estimates will be available in the coming months and should be considered in conjunction with ATK. (TAB 12, p.2)

- ➤ Canada is under international scrutiny when it comes to managing polar bears. Increasing the harvest when there are early indications of a possible population decline will be difficult to justify and may jeopardize trade from both this subpopulation and Canada as a whole. (TAB 12, p.2)
- Simulation modeling with demographic parameters from 2004 and recent harvest data (2005-2010) indicates that the WH polar bear subpopulation size has continued to decline, despite a reduction in TAH (abundance likely <700 bears by September 2010). This preliminary assessment includes six additional years of data over the previous one. (TAB 13, p.2)
- Environmental conditions for the WH subpopulation continue to deteriorate. (TAB 13, p.2)
- No difference in overall body condition was detected between adult polar bears between 1999-2004 and 2005-2010. However, correlation between adult body condition and date of sea ice break-up exists. Later ice break-up is related to better body condition as the bears come ashore. (TAB 13, p.2)
- Fecundity and productivity has declined for WH polar bears in the last 15 years. Litter production rates declined by 17-22%, while autumn recruitment of cubs declined by 12-18% between 1994-2004 and 2005-2010. Prime age females showed the greatest reductions. (TAB 13, p.2)
- Litter size and cub mass did not change, but yearling female cubs had lower masses in 2005-2010. (TAB 13, p.2)

#### Parks Canada

### Position:

A decision on increasing the Nunavut total allowable harvest should not be made until after the results of recent population studies conducted by the Government Nunavut and Environment Canada (TAB 14, p.2)

- Parks Canada would like to complete a joint management agreement for the WHB polar bear subpopulation with the Government of Nunavut and Manitoba that would allow management decisions to be made jointly and avoid unsustainable harvests (TAB 14, p.2)
- Section 5.7.1 of the WHB polar bear MOU states that when new research information becomes available the TAH will be corrected as necessary. A comprehensive aerial survey was completed in August 2011 and an analysis of mark-recapture data is in progress, therefore it is premature to increase the TAH (TAB 14, p.2)
- It is not known if the subpopulation is stable, increasing or in decline. If the results of recent studies show that the subpopulation is in decline, it is critical that there be no

- increase in the harvest as the bear population associated with Wapusk National Park will be impacted (TAB 14, p.2)
- Previous population estimates have shown a 20% decline in the subpopulation between 1987 and 2004 and trends in other indicators such as reproductive success and fat index are indicative of a population under stress (TAB 14, p.2)

## **Ontario Ministry of Natural Resources**

### Position:

Supports a 4.5% harvest removal from the subpopulation and inclusion of polar bears taken in defence situations in calculating the TAH. (TAB 15, p.1)

### Evidence / Arguments:

- ➤ A 4.5% harvest removal from the subpopulation is in line with the Ministries understanding of the science used to determine TAH. (TAB 15, p.1)
- At this time Ontario is not believed to be harvesting from the WHB subpopulation. (TAB 15, p.1)

## **IUCN-Polar Bear Specialist Group**

#### Position:

The PBSG strongly opposes the proposed increase in TAH (TAB 16, p.1)

- The PBSG indicates three main reasons for the opposition to a proposed increase, which include:
  - 1.) the present TAH is not sustainable and an increase in TAH will make the TAH even less sustainable;
  - 2.) there is no indication that any of the other jurisdictions or agencies that share responsibility for the conservation and management of the subpopulation have been consulted about the proposed increase or indicated support for the increase; and
  - ❖ 3.) the increase is being proposed prior to the availability of two large and expensive studies that are to report on the status and trend of the WHB subpopulation and this information should be of primary importance to consider prior to making a decision (TAB 16, p.1)
- ➤ With 25 years of research, it has been shown in the peer-reviewed scientific literature that the WH population of polar bears has declined by 20% (1987-2004). This has mainly been attributed to the negative effects of climate warming and the statistically significant

relationship between earlier sea ice breakup and reduced reproduction and survival of cub, subadult and old polar bears. Analyses of all available data have shown continued population decline, even with no harvest. Thus the harvest is unsustainable. (TAB 16, p.1)

- The current TAH of 8 bears was granted despite recognition that the population would likely continue to decline even with no harvest. (TAB 16, p.2)
- Many problem bears killed on the Kivalliq coast are additive to the TAH, rather than being included. (TAB 16, p.2)
- An increase in TAH is contrary to a recommendation based on "the best available scientific evidence" and thus contravenes the intent of the Agreement on the Conservation of Polar Bears (1973), which Canada signed and ratified. Article II of The Agreement states "Each Contracting Party... shall manage polar bear population in accordance with sound conservation practices based on the best available scientific data." (TAB 16, p.2)
- Results of the 2007 and 2010 surveys commissioned by the GN –DoE to address inconsistencies between IQ and scientific studies in WHB do not support the contention in the letter from Minister Shewchuk (i.e. that the survey documented significant of polar bears in areas un-sampled by the Regehr *et al.* (2007) study). Peacock & Taylor (2007) reported bears captured in the northern areas that were not previously surveyed were not a spatially distinct subgroup of the WH subpopulation during the time of year when the sampling by Regehr *et al.* (2007) occurred. The report from the 2010 aerial survey also noted low densities in WHB region of Nunavut during late summer. A third survey was conducted in the summer of 2011 but the results are not yet available. (TAB 16, p.2)
- Polar bears are currently listed as a "threatened species" in Manitoba, Parks Canada protects main denning areas for the WH subpopulation in Manitoba, and the tourist industry in Manitoba depends on living bears. There is no indication that Manitoba or Parks Canada was consulted about the proposed increase to TAH, nor was there indication they would support the change. (TAB 16, p.2-3)
- For the adjacent subpopulation (Southern Hudson Bay), Ontario has listed polar bears as threatened and there is no indication that it was consulted or would support the proposed TAH levels. (TAB 16, p.3)
- ➤ The proposal is contrary to the "precautionary principle," widely accepted by conservation organizations globally. The precautionary principle suggests increased in harvest levels are not made where there is uncertainty about whether or not they could be sustained. (TAB 16, p.3)
- No new ATK/IQ has been presented to support the proposed quota increase and demonstrate it would be sustainable. In the view of the PBSG, a proposed TAH that appears to be based on reconciling past harvest rates and be based on "strongly held views" that the population estimate is too conservative is not defensible. (TAB 16, p.3)

## Chair of the Federal-Provincial-Territorial Polar Bear Technical Committee (PBTC)<sup>1</sup>

### Position:

NWMB should postpone any decision on changes to the TAH for the WH subpopulation until the results of the 2011 distance-sampling aerial survey are known. (TAB 17, p.2)

## Evidence / Arguments:

- There is no management objective stated for the subpopulation:
  - ❖ For decades polar bear subpopulations in Canada were managed to ensure population stability in a situation where habitat, and thus carrying capacity, was assumed to be stable. Recent declines in duration and distribution of sea ice have resulted in deteriorating habitat conditions in WHB, and the effects of these changes in habitat have been shown convincingly for the WH subpopulation (e.g. declines in individual body condition, survival rates, and subpopulation numbers). With declining survival rates and abundance no sustainable harvest rate is possible. (TAB 17, p.1)
  - ❖ One could manage the population in such a way as to push the population to a lower abundance level, either by letting bears die naturally or by higher harvest levels, to better suit the new carrying capacity of the habitat. The argument for allowing harvesters to take advantage of the meat and fur resources in this situation could be justified. However this was not stated as a management objective. Moreover this is a risky approach as the current carrying capacity in WHB is unknown and the target population size that would match the carrying capacity is impossible to state. (TAB 17, p.2)
  - A management objective for this population should be clearly and transparently stated in any background materials. (TAB 17, p.2)
  - Moreover the various jurisdictions and users groups with management responsibilities for the shared WH subpopulation should agree on the management objective. No evidence of such a dialogue among the groups has been presented. (TAB 17, p.2)
- Results from a new GN-DoE and MDOC aerial survey will be analyzed and made available by late November 2011. This data will provide an abundance estimate and can be compared to the estimate from CWS mark-recapture data. Since the aerial survey was

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<sup>&</sup>lt;sup>1</sup> The PBTC did not provide a "consensus view" response to the GN proposal as there was not a consensus among members of the PBTC to provide a response nor was there agreement as to what the response should be. The response submission is from the Chairperson of the PBTC and represents the personal views of the Chairperson not the PBTC.

expensive, and a non-invasive method for estimating the subpopulation abundance (as called for by some user groups), a decision by the NWMB would be premature before the results of this survey are known. (TAB 17, p.2)

### World Wildlife Fund-Canada

### Position:

Any decision on adjustments to the WHB TAH should be made only after the results of the most recent surveys are available and consultations have occurred with communities and jurisdictions (TAB 18, p.2)

- ➤ Support the role of technical advisory groups like the PBTC, and IUCN's PBSG, and expect such advice to be at the forefront of annual management decisions regarding polar bears and human activities in their range (TAB 18, p.1)
- Concerned that in such times of unprecedented rapid climatic change, the lack of recent information/surveys of polar bear subpopulations seriously compromises the ability of decision-makers to determine sustainable levels of harvest and urge that higher priority be given to jurisdictions for such surveys and research (TAB 18, p.1)
- ➤ In Hudson Bay due to a rapid reduction in sea-ice cover over the annual cycle, it is evident that bears are being forced ashore for longer periods in the ice-free months of the year, and are increasingly attracted to the vicinity of communities and outpost camps (TAB 18, p.2)
- ➤ Believe that effective management of major attractants like community garbage must be addressed in order to improve public safety and minimise property damage and encourages the implementation of measures in Nunavut to address the issue of community-based attractants for polar bears (TAB 18, p.2)
- ➤ The NWMB federal seats must be re-appointed by the Government of Canada and filled immediately, in order that the co-management system can work effectively, with the full complement of nine members as specified in the NLCA (TAB 18, p.2)