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Minister of Environment  
Minista Avatilirijutitut  
Ministre de l'Environnement

Mikidjuk Akavak  
Chairperson  
Nunavut Wildlife Management Board  
PO Box 1379  
IQALUIT NU X0A 0H0

AUG 18 2011

**Re: Request for a decision of the Nunavut Wildlife Management Board on the Total Allowable Harvest for the Western Hudson Bay Polar Bear Population**

Dear Mr. Akavak;

Attached please find a request for a decision of the Nunavut Wildlife Management Board (NWMB) for the management of the Western Hudson Bay Polar Bear Population (WH).

This request for a decision of the NWMB is being submitted as a Ministerial Management Initiative as per Article 5.3.25 of the Nunavut Land Claims Agreement (NLCA). Harvesting of WH normally begins in October, and therefore I respectfully request that the NWMB deal with this matter expediently and make a decision on this request by October 10, 2011.

In the attached request for decision, the Department recommends a Nunavut total harvest of 21 bears from WH for the 2011/12 harvest season, to be allocated by the Regional Wildlife organization amongst the Nunavut communities that harvest from WH. This recommendation takes into account the fact that Manitoba is expected to destroy about 4 bears as part of their problem bear management program.

If your staff has any question about this request or require additional information, they are asked to contact Drikus Gissing, Director, Wildlife Management Division.

I look forward to your response.

Sincerely,

Daniel Shewchuk  
Minister of Environment

attachment



## **SUBMISSION TO THE**

## **NUNAVUT WILDLIFE MANAGEMENT BOARD**

### **Information:**

**Decision: X**

**Issue: 2011-2012 Polar Bear TAH Recommendations for the Western Hudson Bay (WH) population.**

### **Background:**

In 2005/2006 new polar bear Memoranda of Understanding (MOUs) came into effect and Nunavut polar bear Total Allowable Harvest (TAH) allocations were increased for the WH polar bear population from 47 per year to 56 per year. This population extends into Manitoba therefore the increase considered the historical Manitoba control removal rate of about 8 bears per year in the Churchill area, and Inuit knowledge of increased densities north of Churchill which suggested that the WH population had increased. The WH Polar Bear MOUs (Section 5.7.1) states that when new research information becomes available the TAH will be corrected as necessary. New information on the WH population was received in February 2005 at the Federal/Provincial Polar Bear Technical Meeting (PBTC). The Canadian Wildlife Service (CWS) working in the Manitoba summer retreat area, estimated the WH polar bear population had declined from about 1200 to about 935 time referenced to 2004 over the last 20 years due to the combined effect of progressive sea-ice decline causing reductions to survival and recruitment rates, and subsequent unsustainability of control and harvest removals (Regehr et. al. 2007). However, current and historical information from Nunavut local hunters contradicts this scientific information (NTI 2007, GN Consultations 2004-2011). Inuit information suggests that the populations may not be declining as indicated by the scientific information. The Nunavut annual TAH for WH was reduced to 39 for 2008-2009, and set at 8 per year thereafter. However, keeping removals from WH to 8 per year has been problematic because of Nunavut removals for control actions after the regular harvest have exceeded the TAH (8) every year since the reduction, including 2010-2011.

### **Consultations:**

Consultations for these recommendations have occurred as community and HTO meetings and as a population workshop with HTO and RWO representatives from Arviat, Whale Cove, Rankin Inlet, Chesterfield Inlet, and the Kivalliq Regional Wildlife Organization. There have also been extensive consultations with NWMB, and at Provincial, National, and International levels. Unlike most other polar bear populations in Nunavut, the experience and knowledge of local hunters in WH is at odds with the scientific information on population status and TAH.

### **Current Status:**

The reasons for the difference in perspective between Traditional Ecological Knowledge and scientific knowledge has been discussed but not resolved. Climate change may have altered polar bear distribution patterns and behavior giving Inuit hunters the impression that there are more bears because there are more bear-human encounters. However it may also be true that



both population numbers and population performance have been underestimated by scientific studies that failed to include the entire summer retreat area used by WH polar bears. Although the WH population has been studied longer than any other population, and a very high proportion of the population is marked, the entire population area has never been sampled in a single year. Additionally, the analysis time frame necessarily pools data taken from years where the area coverage has varied. To address this ambiguity, there have been two preliminary surveys of northern areas not searched (included) by the Regehr et. al. (2007) study (Peacock et. al. 2008, and an unpublished aerial survey conducted in summer 2010). Both surveys documented significant densities of polar bears in areas un-sampled by the Regehr et. al. (2007) study. CWS has continued mark-recapture sampling in the Manitoba "Churchill Study Area", and a comprehensive aerial survey (population number only) is planned for summer 2011. The TAH of the WH population is best considered uncertain at this time, but both the comprehensive aerial survey estimate and an update analysis of the M-R data available will be available for the next harvest season. Manitoba control removals have been reduced to ~4 per year (J. Dubois, personal communication).

### **Recommendation:**

For the 2011-2012 harvest year only we recommend that the total sustainable removal for WH be 4.5% (Taylor et al. 1987) of the most recent population estimate (935: Regehr et. al. 2007) which equals **42 per year**. This assumes that the control removal rate by Manitoba will be 4 individuals per year. This leaves **38 for Nunavut WH TAH**. The 38 would be used to reconcile any apparent over-harvest of males and females in previous years (~19 bears), and accommodate the 2011-2012 defence kills and community hunting with the remainder (21 total for Nunavut TAH from WH). This TAH allocation would maintain the integrity of the Flexible Quota system across Nunavut and demonstrate appropriate consideration for current WH TEK. Long-term TAH for WH can be considered next year with the benefit of the new information and improved support from the WH communities. Respectfully, any demographic impacts from opting for historical harvest levels for a single season will be minor compared to the conservation benefits from accommodating the strongly held views of local hunters and scientific uncertainty ... regardless of the outcome of the new studies described above.