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October 30th, 2015

Attn: Ben Kovic
Chairperson, Nunavut Wildlife Management Board

RE: Comments on the Proposed Nunavut Polar Bear Co-Management Plan

Dear Mr. Kovic,

On behalf of WWF-Canada, thank you for the opportunity to submit comments on the Nunavut Polar Bear Proposed co-management Plan under the Nunavut Wildlife Management Board (NWMB) Written Hearing Process.

At WWF, we recognize the difficulty associated with drafting a management plan for such a wide-ranging species with multiple subpopulations with varying conservation outlooks. Few species elicit as wide of a variety of viewpoints on the status, management goals, and future projections as polar bears, compounding the difficulty of drafting a management plan that represents the diverse viewpoints of Nunavummiut and ensures the long-term persistence of the species. It is with these considerations in mind that we submit comments on the proposed co-management plan, under the following sections:

a) Managing human-polar bear conflict in Nunavut communities
b) Minimizing ambiguity in adaptive management techniques and goals outlined in the proposed co-management plan
c) Addressing the lack of a balanced approach in the proposed co-management plan between the scientific and IQ understanding of the effects of climate change on polar bears
d) Increasing alignment of the proposed co-management plan with other federal and international polar bear management plans

a) Managing human-polar bear conflict in Nunavut communities

WWF has a long history in engaging in human-wildlife conflict issues around the planet, with specific emphasis on human-polar bear conflict in Canada, the United States, Greenland, and Russia. In Nunavut, WWF Canada, in collaboration with the hamlet of Arviat, operates a polar bear patrol program that has greatly reduced the number of problem polar bears killed in defense of life and property in the community, increasing public safety and ensuring that the vast majority of the harvest remains available for hunters (Figure 1).

This proposed co-management plan proposes for an increase in total allowable harvest (TAH) or adjustments to the sex ratio of the harvest in areas where the co-existence threshold has been reached. There are however a full suite of measures that should be put into place to manage increased conflict, as demonstrated by the success of the polar bear patrol program in Arviat. Indeed, if the objectives listed in section 8.4 *People and bears (Inuuilly Nanuillu) and objectives* are fully implemented, increases in TAH to lessen human-polar bear conflict may not be necessary. Before increasing TAH and managing populations for decline, WWF is in support of the Government of Nunavut (GN) investing in waste management initiatives, providing secure food containers, polar bear deterrents, and polar bear patrol programs including training and employing local people in communities experiencing higher levels of conflict.

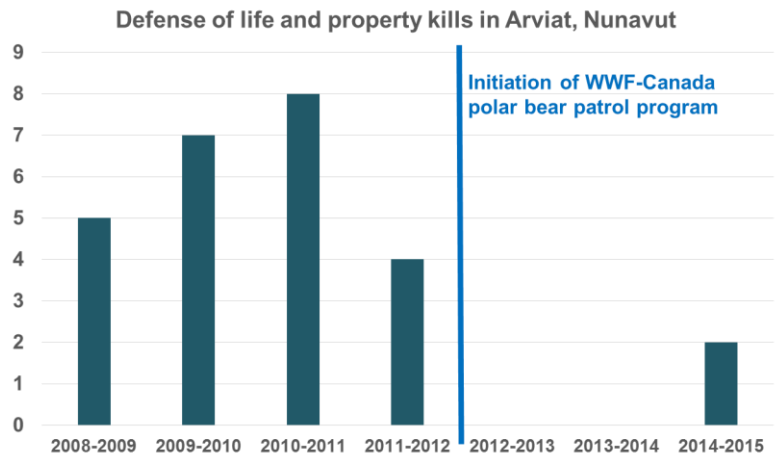

Figure 1 Number of defense of life and property kills in the Hamlet of Nunavut directly before and after the initiation of the polar bear patrol program.

We would also suggest adding under section 8.5.3 *Sharing information and knowledge* that the GN should continue to contribute to the PBHIMS system, and work with the human-bear conflict subcommittee of the Range States as well as outside organizations to quantify and characterize successful polar bear deterrent measures through community research programs.

b) Minimizing ambiguity in adaptive management techniques and goals outlined in the proposed co-management plan

In the proposed co-management plan, it is noted that "If the TAH is increased, appropriate monitoring must be conducted as a follow-up to measure the success of the management action" (page 19). The scope, scale, and timing of this 'appropriate monitoring' is undefined, and no funding parameters are noted. No details are provided on the specific management goals for decline, and no evidence is provided to indicate that increased harvest at specific scales will achieve the desired impact on human-polar bear conflict rates. Further, the language surrounding adjustments to the sex ratio of the harvest and the implications of such changes on TAH are unclear, and warrant explicit explanation in the plan. Clarification is also required on the evidence threshold and magnitude of increase required in a population before management for population decline is possibly implemented (i.e. what qualifies as "new information" listed in section 9 *Implementation of the plan*?*)*.

We also note a lack of timelines and measureable outcomes for the listed *Objectives* under section 8 *Management plan objectives*, and in *Appendix C.* This plan should assign deliverable dates and measurable outcomes whenever possible on which the review committee can assess the effectiveness of the plan during their annual and seven-year review processes. Bounding objectives with timelines will also help to link management actions directly with their intended outcomes.

c) Addressing the lack of a balanced approach in the proposed co-management plan between the scientific and IQ understanding of the effects of climate change on polar bears

The proposed co-management plan successfully outlines the polar bear IQ of many Nunavut communities, but there is a lack of scientific information on polar bears provided. This is most noticeable in section 7.3.1 *Climate change*, where the suite of knowledge from decades of scientific studies on the ecological link between polar bears, climate, and sea ice is not mentioned (e.g. Derocher et al., 2004; Laidre et al., 2008; Molnár et al., 2010, Rode et al., 2010, Stirling and Derocher, 2012; Atwood et al., 2015). By not giving consideration to the scientific understanding of polar bears the opportunity to develop an integrated co-management plan based on both IQ and science is weakened.

Without in-text references or a reference list, it is unclear what body of information informed the drafting of this plan, and which information was not included. A record of the community consultation record for the drafting of this plan is also lacking, as are the affiliations of the drafting authors. Including information on these points would include the transparency of this plan, and allow for a better understanding of the rationale informing the management objectives.

d) Increasing alignment of the proposed co-management plan with other federal and international polar bear management plans

The management objectives and information base in this proposed co-management plan are not fully aligned with those governing two other highly relevant plans, the delayed Species at Risk Act (SARA) national polar bear management plan, and the Circumpolar Action Plan (CAP) for polar bears recently adopted by the Range States. We encourage increased collaboration between the GN, the NWMB, and the Canadian Wildlife Service (CWS) in ensuring that this proposed co-management plan is compliant with the objectives of SARA and the CAP, so that national and international polar bear management actions are aligned and effective.

Concluding remarks

There is an opportunity for this plan to be informed by the best available IQ and scientific information to allow responsible polar bear management that meets the needs of Nunavummiut. Additional consideration of human-polar bear conflict reduction measures is required to ensure the full suite of management options have been considered before managing populations for decline. Further details are required into the specific adaptive management strategies that will be employed in various conservation scenarios, as well as details on specific monitoring efforts that will follow decisions to manage subpopulations for decline. This proposed co-management plan should also better reflect the current state of scientific knowledge of climate change, sea ice, and polar bears, presented as complementary information and in some cases in contrast to IQ for broader consideration.

Once again, we would like to like to thank the NWMB for considering the comments provided.

Sincerely,

Brandon Laforest
Senior Specialist, Arctic Species and Ecosystem
WWF-Canada

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