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RE: Polar Bear Ontario Government Response Statement (EBR Registry Number: 012-7323)

Dear Ms. McAndrew,

Thank you for the opportunity to provide comments on the Polar Bear Ontario Government Response Statement (GRS) mandated under Ontario's *Endangered Species Act, 2007* (ESA). We are submitting this letter in our respective capacities as Wildlife Conservation Society (WCS) Canada scientists specializing in wildlife ecology, conservation biology, cumulative impacts, and landscape ecology in northern Ontario. A national organization, our research and conservation priorities in Ontario are largely focused on the Far North. We were both advisors on Ontario's recovery strategy for Polar Bear (*Ursus martimus*) and provided public comments on the recovery strategy on June 13, 2011 (EBR 011-3464). Dr. Chetkiewicz attended the recovery strategy meeting with First Nations in Fort Severn in 2011 and also has research, conservation, and co-management expertise on grizzly bears (*Ursus arctos*) in Alberta and the Northwest Territories.

We recognize that conservation of polar bears in Canada over the last decade has shifted from an almost exclusive focus on harvest management to addressing the direct and cumulative impacts of climate change, expansion of resource extraction operations in polar bear habitats (both marine and terrestrial), and the increasing role of indigenous peoples in polar bear management throughout their range in the form of modern land claim agreements and case law clarifying aboriginal and treaty rights. Polar bear conservation in Canada is also multijurisdictional.

Ontario, specifically the Ministry of Natural Resources and Forestry (MNRF), is responsible for conserving the most southerly subpopulation of polar bears. As such, Ontario is responsible for research and monitoring of polar bears in the face of changing environmental conditions, such as climate change and managing and limiting cumulative impacts of development on their terrestrial habitats in Ontario's Far North. Ontario is responsible for doing this by working with indigenous peoples, particularly First Nations in the Far North, and other jurisdictions with constitutionally-protected aboriginal and treaty rights, which must be considered when Ontario takes up conservation and development actions that impinge on these rights. For effective decision-making about polar bear conservation needs in Ontario, we think a transparent consideration of scientific and traditional knowledge and genuine opportunities for indigenous and public participation is paramount.

Our most significant concerns relate to the process of creating this Government Response Statement, the weak and vague recovery goal, and the limitations of Ontario's commitments under each focus area,

particularly as it relates to planning. Ontario commits nothing new in this GRS to recovery of polar bears and has pledged no meaningful funds to address polar bear declines in Ontario.

We describe our major concerns below and provide specific recommendations (in italics) for revising the GRS.

1. MNRF's failure to comply with the ESA on polar bear recovery planning

We are deeply troubled by MNRF's failure to comply with the ESA on polar bear recovery planning. The intent behind timelines under the ESA is for government to move quickly to prevent the further loss of Ontario's species at risk. The Recovery Strategy was published on December 7, 2011 and the GRS was due for public consultation on September 7, 2012. However, it has taken MNRF nearly four years to develop the current draft, citing the need for "more extensive engagement", to "comprehensively consider and address the complexities" associated with the protection and recovery of polar bears in Ontario.

The draft GRS offers no information on the nature and extent of its extensive engagement process nor why it has taken so long for MNRF to address the output from this process. There has been little or no scientific consultation with members of the advisors since the development of the recovery strategy. The only public process where stakeholders were consulted on polar bear recovery is under EBR 011-5243 in 2012. In reviewing this posting, only 13 comments were received and the notice included 7 other species (four-leaved milkweed, bogbean buckmoth, Laura's clubtail, rusty-patched bumble bee, eastern hog-nosed snake, horsetail spike-rush, lake sturgeon) in addition to polar bear. It is difficult to believe that MNRF needed four years to address these few comments. Based on this draft GRS, it is also unclear how the quality of the GRS has been improved by doing so. The GRS should be revised to indicate what "additional jurisdictional, scientific and economic information" has been collected and how it has been included.

Recommended amendments:

- 1. Revise Lines 16-18 to describe how information was solicited from stakeholders, and provide a description of how this input informed the drafting of the GRS, particularly in relation to "appropriate and necessary" actions.*
- 2. Revise Lines 28-29 to be more specific about the process the Ministry undertook over the last four years to collect "additional jurisdictional, scientific and economic information" and a description of how this information helped address the "complexities associated with the protection and recovery of polar bear".*

2. "Appropriate and necessary actions"

This misleading statement in the preamble claims that the GRS "identifies actions that are considered to be appropriate and necessary for the protection and recovery of the species". This cannot be reconciled with the list of actions that is offered in this draft GRS for polar bear recovery in the province, most of which will be based on existing processes and programs.

Recommended amendment:

1. *Revise Lines 29-30 to remove “appropriate and necessary” from the generic preamble that appears in this and all forthcoming GRS, given that it is generally not possible for both to be true.*

3. Ontario's recovery goal must be more explicit about the government's ecological and social responsibilities for polar bear conservation in Ontario.

There are fairly dramatic differences between the recovery goal stated in the recovery strategy which focuses on having a viable sub-population that can persist in a changing environment and supports traditional uses of polar bears by coastal Cree communities and the current GRS which focuses instead on maintaining "suitable habitat conditions in Ontario to the extent possible" and to collaborate with other jurisdictions, including Indigenous communities, to increase the likelihood of the species persistence within Canada." We do not support the current recovery goal.

To be acceptable, the recovery goal must include:

- a measurable ecological component;
- remove the qualifier "to the extent possible", which is vague and offers no certainty on what Ontario will actually do and be responsible for;
- explicit acknowledgement of First Nations in Ontario's Far North, and
- be explicitly focused on Ontario. Only by addressing polar bear populations in Ontario, can MNRF contribute to the likelihood of the species persistence in Canada.

Polar bear are one of the few species at risk for which we have robust monitoring information and population estimates. Therefore, there is no reason that the recovery goal couldn't include a suitable population-linked metric against which MNRF's proposed actions can be assessed and adapted if necessary.

From a social perspective, the current draft expands Ontario's focus from the recovery strategy to "collaborate with other jurisdictions, including Indigenous communities". The preamble in Lines 77-88 clearly identify the First Nation communities along the Hudson and James Bay Coasts and most of the action items in Monitoring and Research (Lines 37-383) also focus on coastal Cree First Nations. As with the goal in the recovery strategy, we think the GRS recovery goal needs to include First Nations communities in the Far North more explicitly. First Nations in Ontario's Far North will also be making decisions about polar bear terrestrial habitats in the Far North through government-led land use planning and new industrial development proposals. Polar bears are also important cultural components of Cree coastal communities in the Far North as described in the GRS.

Recommended amendments:

1. *Revise Lines 117-121 to provide an ecological, population-based metric against which Ontario's recovery actions can be assessed.*
2. *Revise Line 117-121 to include and explicitly acknowledge First Nations communities in the Far North.*
3. *Revise Lines 117-121 to describe why the recovery goal has changed substantively from the recovery strategy.*

4. Climate change impacts on polar bear terrestrial habitats in the Far North are poorly described in the GRS

The rate of climate change in Ontario's Far North is expected to be much greater than in southern Ontario. This is well documented by MNRF's own scientists and well established in various publications and MNRF reports (e.g., McDermid et al. 2015, Furrer et al. 2014, Far North Advisory Science Panel Report 2010, Varrin et al. 2007). For example, McDermid et al. (2015) show the greatest temperature changes are projected in the Far North, with increases as high as 10 °C above 1971–2000 baseline levels by the 2080s. The GRS should make more explicit about how the terrestrial components of the Far North will change given MNRF's own research and what the future projections mean for terrestrial polar bear habitats.

Recommended amendment:

1. *Revise Lines 145 - 161 to acknowledge that the rate and extent of climate change in the Far North and what this means for conservation of terrestrial habitats for polar bears in Ontario.*

5. Addressing climate change mitigation (and adaptation) in Ontario's Far North for the purpose of polar bear conservation

The GRS indicates that actions relevant to polar bear recovery will be implemented under Ontario's Climate Change Strategy and Climate Change Action Plan¹. Ontario's commitment to addressing climate change by reducing greenhouse gas emissions across sectors is an important step in the right direction for long-term mitigation. We have supported these efforts through our comments on Ontario's Climate Change Discussion Paper (EBR 012-3452) leading up the recent release of Ontario's Climate Change Action Plan. However, we see little in the recent Action Plan that addresses the Far North. As such, the value of the actions described in the GRS under this plan are vague with respect to polar bear recovery (Line 199 - 202). The GRS needs to be more explicit about how implementing, monitoring and reporting on progress on Ontario's plan will lead to polar bear conservation in Ontario.

Recommended amendments:

1. *Revise Lines 145 - 161 to acknowledge more explicitly what aspects of the new Climate Change Action Plan is relevant to polar bear conservation in the Far North.*
2. *Revise Lines 199 - 202 to identify what MNRF will implement under the Action Plan to support polar bear conservation in the Far North.*

While MNRF and MOECC reports acknowledge the global significance of large, intact peatlands and wetlands in the Far North for climate regulation and carbon sequestration (e.g., Far North Science Advisory Panel Report 2010), not one of its policy or planning documents makes proactive protection of these systems a priority. For example, MNRF's draft wetland strategy (EBR 012-4464) is focused on southern Ontario and the mitigation hierarchy around no net loss. The recently released Action Plan ignores the role and unprecedented opportunity to protect intact wetlands (*sensu* important polar bear habitat) in the Far North. We recommend MNRF prioritize protection of ecosystems that contribute to climate regulation, and therefore mitigation and adaptation, through its planning, funding, agreements, permits, and policy pathways.

¹ <https://www.ontario.ca/page/climate-change-action-plan>

Recommended amendments:

1. *Revise Lines 145 - 161 to describe how Ontario is prioritizing protection of large intact ecosystems like peatlands and wetlands in the Far North.*
2. *Revise Lines 199-123 to include an action that prioritizes protection of ecosystems that contribute to climate regulation.*

Climate change strategies and plans led by MOECC consistently identify MNRF's Far North Land Use Strategy (FNLUS) as the action item to address climate change in the Far North. We note that the FNLUS is not mentioned in the current GRS. This is an important oversight that needs to be amended.

Recommended amendment:

1. *Revise Lines 204 - 207 to include the Far North Land Use Strategy.*

We have provided extensive comments on the development of the FNLUS (EBR 012-0598) and met with lead MNRF staff to discuss our comments and concerns. One of us co-authored the Far North Science Advisory Panel report (Far North Science Advisory Panel Report 2010), which contained extensive discussions on this topic. Our conclusion is that the FNLUS is a weak instrument and not a regional planning tool. The FNLUS provides advice on climate change and other regional issues, making it impossible for the public to know how this advice will be taken up at community-based land use planning tables. We recommend the GRS be amended to include description of the FNLUS and how it will support polar bear conservation through government-led planning.

Recommended amendment:

1. *Revise Lines 204 - 207 to describe how Ontario is addressing polar bear conservation, particularly climate change, through the Far North Land Use Strategy.*

However, Ontario is not on track to meet its 2020 greenhouse gas emissions target and will not meet the biodiversity target associated with this threat under its Biodiversity Strategy. Therefore, the GRS must also explicitly address how adaptation planning can support polar bear conservation and recovery in addition to mitigation.

Recommended amendments:

1. *Revise Lines 145 - 161 to describe climate change adaptation actions Ontario is undertaking that will be relevant to polar bear conservation in the Far North, in addition to mitigation.*
2. *Revise Lines 200 - 212 to include an action focused on conducting adaptation planning and/or vulnerability assessment to inform protected area planning emerging through community-based land use planning or other approaches led by First Nations e.g., watershed protection.*

6. Limitations of current planning actions to address impacts of current and future land use on polar bears in the Far North.

Peacock et al. (2011) state that, mainly because of climate change, habitat will increasingly influence the viability, distribution, and diversity of polar bears, and supersede harvest as the primary conservation

and management concern. Attention to harvest seems to be addressed in the GRS (Lines 296 - 299). However, as long as polar bears are treated as a terrestrial mammal by Ontario, MNRF is responsible for protecting habitat that enables polar bears to carry out their life processes as well as provide space and options for polar bears trying to adapt to climate change (e.g., habitat selection, movement patterns, diets). Theoretically, if protected areas can provide sufficient intact habitat to maintain ecological function and integrity, they can enhance resilience to climate change, providing some space and time for polar bears adapting to climate change impacts. In addition, it is certainly possible that with retreating ice, polar bears will rely on terrestrial lands more than they do today. The draft GRS highlights the ongoing importance of Polar Bear Provincial Park to protect summer retreat habitat and denning habitat in the Far North and uses this to justify not developing a species-specific habitat regulation (Lines 175 - 178). However, Ontario has not provided any assessment of how the quality and quantity of habitat for polar bears in this park is anticipated to change in the near future under climate change. We recommend the GRS consider this more explicitly.

Recommended amendment:

1. *Revise Lines 163 - 167 to address how climate change may affect quality and quantity of polar bear habitat in Polar Bear Provincial Park.*

While we have been promoting protected area approaches with First Nations that acknowledge IUCN categories of protection under indigenous governance such as Indigenous peoples' and community conserved territories and areas (ICCAs)², we are not sure what MNRF means by the use of "Indigenous lands" in this context. The GRS should clarify this explicitly.

Recommended amendment:

1. *Revise Lines 177 - 178 to clarify what is meant by "Indigenous lands".*

The GRS downplays the impacts of new land use in combination with climate change on polar bears by stating that "development pressures within the range of polar bear are minimal" (Lines 176-177). In reality, MNRF does not know if the current amount of development pressure is "minimal" from a polar bear subpopulation and habitat perspective, particularly in combination with climate change. What is known is that:

- First Nations will be engaged with MNRF through land use planning in the near future and will be zoning polar bear habitat as areas for general use, enhanced management, and protected areas;
- changing climate conditions on the Hudson Bay will create new development opportunities on land and sea;
- Ontario continues to prioritize its economic priorities around mineral exploration, renewable energy, and transportation through the Growth Plan for Northern Ontario, Ontario's Long-Term Energy Plan, and the Mineral Development Strategy;
- Ontario is committed to building all-weather infrastructure and expanding mineral extraction, particularly in the Ring of Fire; and
- environmental assessment of new industrial development is scoped narrowly and unable to consider climate change and cumulative effects in Ontario.

² <http://www.iccaconsortium.org/>

We think the direct and cumulative impacts on polar bear habitat in the Far North will only increase in the future. Yet, MNRF currently lacks any tools to support decision-making about permits, approvals, or planning to consider these impacts on polar bears. Importantly, the only action identified in the GRS is to collaborate with First Nations on community-based land use planning and the development of best management practices to reduce the impacts of development activities on polar bear habitat (Lines 204 - 211). We recommend MNRF commit to developing a cumulative effects framework that can consider and support decision-making about polar bear conservation and habitat management in the Far North either through community-based land use planning and/or environmental assessment. MNRF should also consider current and future trajectories of land use in the Far North, together with climate change scenarios to support this assessment. The GRS should be revised to address both actions.

Recommended amendments:

1. *Revise Lines 199 - 123 to include an action to develop current and future scenarios of land use and climate change that can consider polar bears explicitly.*
2. *Revise Lines 199 - 123 to include an action to create a cumulative effects framework that can consider current and future development and climate change scenarios in order to support decision-making about conservation of polar bears at community planning tables, environmental assessment, etc.*

Overall, we think the GRS is both optimistic and restricted by relying on government-led planning processes to effectively address polar bear conservation in the Far North at the appropriate scale. From a governance perspective, community-based land use planning between First Nations and MNRF is an improvement on previous planning approaches in Ontario that tended to exclude First Nations (e.g., Lands for Life). Yet, there is no evidence that community-based land use planning has delivered better conservation outcomes for species or ecosystems in the Far North. The piecemeal and emergent approach to protected areas in the Far North is not systematic and does not consider polar bears. Zoning in community-based land use planning cannot consider the rate and intensity of change associated with land use and climate (*sensu* cumulative impacts) nor does Ontario's process value intact ecosystems and the services they provide for all Ontarians. Finally, environmental assessment for new development projects is not integrated with land use planning in the Far North. As such, Ontario's approach to planning cannot deliver a cohesive protected area network for wide-ranging, threatened species like polar bears. Only plans, regulations and policy under the ESA can address values associated with having healthy, viable populations of these threatened species now and in the future.

Yet, the reasons provided in the GRS for why MNRF is not developing a species-specific habitat regulation are neither precautionary nor proactive and likely wrong. The fundamental premise behind polar bear conservation in Ontario is management of cumulative impacts of climate change and land use on habitats necessary for Ontario's subpopulation of polar bears to carry out their life processes on land. This also includes considering how to provide options to protect habitat for polar bears trying to adapt to climate change (e.g., through changing habitat selection, movement patterns, and diets). As described above, MNRF is currently not doing this in Ontario's Far North. Despite protection of habitat in Polar Bear Provincial Park, MNRF has no idea how this habitat quality and quantity may change. It is unclear how much resilience this park offers polar bears around important habitats like summer retreat habitat and denning in the face of climate change and human disturbance. Therefore, the ability of MNRF to achieve a recovery goal focused on maintaining suitable habitat will depend on MNRF's ability to manage cumulative effects. Since all polar bear habitat is important in the face of climate change, we recommend the species-specific habitat regulation be created to confer MNRF authority to manage

cumulative effects on polar bears (through regulation of activities on polar bear habitat in the Far North). MNRF must, necessarily, create the appropriate framework, tools, and participatory processes to assess and manage cumulative effects given natural resource extraction, climate change, and other developments in Ontario's Far North.

Recommended amendment:

1. *Revise Lines 175 - 178 to include a include a habitat-specific regulation to manage cumulative effects on polar bears.*

7. Actions under "Collaborative Management" should consider opportunities to expand existing co-management agreements to consider more than just harvest quotas.

Rather than rely on Ontario's planning mechanisms which have inherent limitations when it comes to conserving polar bears, we suggest that GRS also include an action that expands the current co-management agreements developed with other jurisdictions to set harvest quotas in Ontario to include all aspects of polar bear management including research, inventory, monitoring, and assessment, habitat protection, stewardship, and education.

Recommended amendment:

1. *Revise Lines 291 - 299 to include an action that expands current co-management agreements to include all aspects of polar bear management to improve on current planning processes in Ontario's Far North*

8. Actions under "Monitoring and Research" objective should identify what actions MNRF will implement if impacts are associated with declines.

We support ongoing ecological and social research identified as part of the efforts to track the health and status of Ontario's estimated 950 polar bears. We also support community-based approaches to monitoring as a way to address conflicts, develop better working relationships between government and First Nations, and land use planning processes that values polar bears explicitly.

However, significant declines in body condition for polar bears in the Southern Hudson Bay subpopulation are apparent and greatest for pregnant females and sub-adults. Survival declines are also apparent for males and females of all age classes. These metrics provide an indication of the status of the population and more broadly the current effects of climate change, through changes in the structure and duration of sea ice, on polar bears. This trend is also one of the indicators being monitored by Ontario as part of its biodiversity strategy.

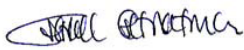
Therefore, it is difficult for us to understand what actions Ontario will take beyond current research programs documenting trends, particular considering the imminent retirement of Dr. Martyn Obbard, who has led these over the past decades. While the GRS includes the obvious management action in the face of declining populations is to reduce or halt harvest and reduce incidental losses of polar bears due to conflicts, both of these actions will require conversations with First Nations communities about aboriginal and treaty rights.

Overall, we think MNRF needs better decision-support tools and ways to consider the future impacts of development and climate change to proactively assess cumulative effects in a management framework for the Far North. A cumulative effects framework that considers polar bear conservation is well within the scope of responsibilities for MNRF given their role in approving permits, new developments, and leading planning that can impact polar bears.

Ultimately, MNRF and other ministries in the Far North (MOECC, Ministry of Northern Development and Mines), together with First Nations, must develop a regional environmental approach that can consider cumulative effects of climate change and land use and value polar bears and the services provided by their habitats. This approach must have the ability to affect decision-making on development. Otherwise, no amount of good scientific research, monitoring, First Nations rights, or goodwill can offset the threats to polar bears from Ontario's piecemeal planning and siloed decision-making.

In conclusion, WCS Canada has recognized Ontario's Far North as one of the most ecologically important wild areas in Canada – and the world. We have invested significant time and resources into developing a better scientific understanding of the region and are committed to both continuing to build this knowledge and using it to help further efforts to ensure a sustainable future for the species and people living in this globally important area. We look forward to continuing to work with your ministry toward this objective. Please contact Cheryl Chetkiewicz (cchetkiewicz@wcs.org or 807-285-9125) if you require further clarification or information regarding our comments.

Sincerely yours,



Cheryl Chetkiewicz, PhD

Justina Ray, PhD

cc: Environmental Commissioner of Ontario (ECO)

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