



**SUBMISSION TO THE**  
**NUNAVUT WILDLIFE MANAGEMENT BOARD**  
**FOR**

**Information:**

**Decision: X**

**Issue: 2017 Muskox (*Ovibos moschatus*) distribution and abundance, muskox management unit MX-09, west of the Coppermine River**

**Background**

- The muskoxen of the West Kugluktuk management unit (MX-09) are the westernmost indigenous muskoxen in North America.
- There are 80 years of scientific monitoring data on the MX-09 muskox population, making it the population with the longest monitoring history in Nunavut.
- The upper Rae-Richardson River area West of Kugluktuk group saw its highest estimate in 1988 with a total of  $1,805 \pm 289$  (S.E) muskoxen.
- In 1994, muskox abundance in this area decreased to  $540 \pm 139$  (S.E) animals, where it remained relatively stable based on a subsequent survey conducted in 2007 (estimated  $589 \pm 121$  (S.E)).
- In the 1990s, the decline of muskoxen in this area was partly attributable to the discovery of a lungworm (*Umingmakstrongylus pallikuukensis*) infection and potential increase in predation pressure by Grizzly Bear (*Ursus arctos horribilis*).
- The current TAH for MX-09 of 20 was set in July 1, 2014 under the Muskox Total Allowable Harvest Order, and this annual limit has remained consistent since 1994.
- The Department of Environment (DOE) has engaged with the community of Kugluktuk and respective co-management partners (Nunavut Tunngavik Inc., Hunters and Trappers Organizations, Kitikmeot Regional Wildlife Board). The DOE will continue to work closely with these groups to manage the muskox population of the West of Kugluktuk group (MX-09) for sustainability in order to meet conservation, management, and food security needs of the ecosystem and local community.

**Current Status**

- The DOE was concerned about the status of the muskox population in the West Kugluktuk group, MX-09, since the last survey was done a decade ago.
- With the scarcity of caribou around Kugluktuk, hunters are seeking alternative sources of meat, such as muskox. Understanding the status of the MX-09 muskox population can support the ongoing management and, therefore, continued harvest of this population.

- A population survey was conducted, based out of the community of Kugluktuk, from August 25 to September 2, 2017 to determine the abundance and distribution of muskox in MX-09. During the survey, 87 adult muskoxen were recorded on transect resulting in an estimated abundance of  $539 \pm 150$  (S.E.) animals in MX-09. The muskoxen population in MX-09 has been mostly stable since 1994.
- The TAH has been 20 since 1994. However, for the last ten years, the current quota has not been filled, and only an average of 15 muskoxen are harvested each year.

### **Consultations:**

- The progress of this research and monitoring effort was communicated during the Kitikmeot Muskox Management Plan Face-to Face meeting and shared with all the Hunters and Trappers Organizations (HTOs) during the Kitikmeot Regional Wildlife Board Annual General Meeting (KRWB AGM) in September 2017 and the KRWB AGM in September 2018.
- On April 2, 2019, the final report and management objectives were discussed with the Kugluktuk HTO board. The HTO recommended maintaining the TAH of 20 on the muskox population in MX-09.

### **Accommodations:**

- From the consultations, change in the report was made to include more local and traditional knowledge, such as
  - Background information on the discovery of the lungworm by Inuit in the 1970s.
  - Explanations from the community include perspectives on recent changes in distribution of muskoxen towards the treeline; thought to be related to avoidance of disease (lungworm) and forest fires.
- The recommendation from the Kugluktuk HTO was consistent with recommendations based on survey estimates made by the Department of Environment.

### **Recommendation**

- *The Department of Environment is recommending to the Nunavut Wildlife Management Board to maintain a TAH of 20 for the Muskox Management Unit MX-09.*