



SUBMISSION TO THE

NUNAVUT WILDLIFE MANAGEMENT BOARD

FOR

Information:

Decision: X

Issue: Kivalliq Muskox (*Ovibos moschatus*) distribution and abundance within muskox management MX-10 (Northern Kivalliq Muskox Subpopulation)

Background

- Since their near-extirpation in the early 20th century, muskox have been re-colonizing much of their former range.
- The first survey of muskoxen in the Kivalliq region occurred in 1999, giving an estimate of 1,522 ± 679 (95% CI).
- Muskox populations in the Kivalliq region have expanded their range to the northeast, north, and south over the past 20 years, according to population monitoring.
- Hunters in Arviat, Whale Cove, Rankin Inlet, Chesterfield Inlet, and Baker Lake have reported increased abundance of muskox in MX-10 and continued range expansion in this management unit.
- By 2008, seasonal Non-Quota Limitations (NQLs) had been removed and proportions used to set a Total Allowable Harvest (TAH) on Kivalliq muskox populations was increased from 3% to 5%.
- The Department of Environment (DOE) has engaged and will work closely with all Hunters and Trappers Organizations (HTOs) and respective co-management partners (Nunavut Tunngavik Inc., Kivalliq Wildlife Board) on sustainably managing the muskox population of MX-10.

Current Status

- Local knowledge and *Inuit Qaujimaqatuqangit* on the MX-10 subpopulations was gathered during consultations in February 2017 with all Kivalliq HTOs, and used to prepare for and conduct an abundance survey of the population in 2017.
- Traditional knowledge pointed to a continued range expansion for MX10 (Northern) and MX13 (Central) subpopulations. All HTOs identified the need to reassess the populations regularly, and supported the determination of subpopulation boundaries and the study areas for both abundance surveys.
- A population survey of MX-10 was flown out of Baker Lake in July 2017.
- The MX-10 abundance survey resulted in an estimated 3,239 adult and yearling muskox in July 2017. The survey results show an increase in population from the

previous estimate of 2,341 adult and yearling muskox estimated in 2012, accompanied by an expansion of range.

- The range of muskox in MX-10 has expanded by an estimated 41% between 1999 and 2017, now covering an estimated 60,576 Km².
- Due to high variance, related with the rapid expansion of the muskox range and variable densities across their range, further analysis of the NKMX abundance survey is ongoing.

Consultations:

- In October 2018, the DOE met with the Kivalliq Wildlife Board (KWB) and its representatives from the communities of Arviat, Whale Cove, Rankin Inlet, Baker Lake, Chesterfield Inlet, Repulse Bay, and Coral Harbour, to discuss all preliminary results and draft population estimates for muskox in MX-10 and MX-13.
- The DOE further consulted on the results of these surveys, and a recommendation increase in the TAH by an order of 5 animals. A face-to-face meeting was held in Arviat and conference calls were held with the HTOs in Rankin Inlet, Nauyasat, and Coral Harbour. Whale Cove and Baker Lake calls were not possible but the HTOs indicated their support for the results and recommendation. It was not possible to reach the Chesterfield Inlet HTO. All reasonable measures were taken to consult with the relevant HTOs, and each HTO that was reached provided a letter of support for the recommended change.

Recommendation:

- The Department of Environment recommends an increase in TAH of 5 muskox (from 90 to 95 muskox) for the MX-10 subpopulation.