Science Technical Session – 2026 Sahtì Ekwǫ̀ Management Proceeding

Summary | October 27–28, 2026 | Yellowknife, Northwest Territories

Purpose of the session

The Wek'èezhìı Renewable Resources Board (WRRB) held a two-day Science Technical Session as part of its review of the joint management proposal submitted by the Government of the Northwest Territories and Tłı̨chǫ Government for the Sahtì Ekwǫ̀ (Bluenose-East barren-ground) caribou herd for 2027–2030. The session provided an opportunity to explore the scientific evidence, methods, assumptions, and monitoring approaches relevant to the proposal. Discussions were technical and exploratory; they did not constitute Board findings or decisions. Attendees included Government of the Northwest Territories, Tłı̨chǫ Government, ʔehdzo Got'ı̨nę Gots'ę́ Nákedı / Sahtú Renewable Resources Board, Délı̨nę Got'ı̨nę Government, Yellowknives Dene First Nation, Kitikmeot Regional Wildlife Board, and the WRRB.

Population estimates and integrated population modelling

The first day focused primarily on the integrated population model (IPM), which brings together calving ground population surveys, composition surveys, collar-based survival estimates, and other information to assess herd trends. Discussions examined how the model accounts for uncertainty, variation between years, and differences in the reliability of individual data sources. Participants explored the strengths and limitations of using the model to interpret past population changes and project possible future trends.

Particular attention was given to differences in variance between estimates of adult females, breeding females and total herd abundance, including the unexpectedly high 2023 survey estimate and subsequent 2025 data. Possible explanations discussed included survey conditions, variation in the movements of younger females, overlap with neighbouring herds, and assumptions about fidelity to calving grounds. The session also considered differences between modelled and collar-based estimates of adult female and bull survival, the limitations of small samples for some indicators, and uncertainty in bull-to-cow ratios.

Harvest scenarios and management uncertainty

The discussion examined how alternative harvest levels and the proportion of cows and bulls harvested are represented in population projections. Attention was given to how assumptions about survival, productivity and recruitment, affect the interpretation of projected outcomes. The limits of forecasting beyond the proposal period were emphasized, as were opportunities to update modelling as new monitoring information becomes available including the incorporation of climate variables. Participants also discussed how to evaluate management outcomes without assuming that changes in herd abundance are necessarily caused by harvest alone.

Monitoring priorities and methods

The second day focused on monitoring the herd and assessing the value of different information sources. Topics included the continued importance of calving-ground surveys, fall composition surveys, and satellite collars, along with the relative value of late-winter calf-to-cow surveys. Discussions recognized the need to balance the benefits of monitoring information against available funding, logistics, and concerns associated with handling animals.

Potential improvements included longer lasting or differently programmed collars, more detailed movement information near roads and other infrastructure, use of remote cameras, automated image analysis, and additional biological sampling. Participants considered whether new methods could complement

established surveys, and the need to test and validate them before relying on them for management decisions.

Harvest monitoring and shared information

The session considered practical questions about administering harvest authorizations, monitoring the proposed cow-to-bull allocation, recording actual harvest, and obtaining consistent reporting across participating governments and jurisdictions. Discussions also addressed the usefulness of biological samples collected from harvested caribou, including information that may help improve understanding of age structure, reproductive status/history, and prevalence of parasites/disease. . The value of community-based monitoring and Indigenous knowledge alongside scientific monitoring was also explored.

Movement between herds and wider influences

Participants discussed movements into and out of the Sahtì Ekwǫ herd, overlap with neighbouring herds, and the challenges of assigning individual herd membership. Possible approaches to further our understanding of herd affiliation and rates of switching included developing multi-herd IPMs. Wider environmental influences, including weather, climate variability, and infrastructure, were discussed in relation to understanding caribou survival, movements, and the interpretation of population trends.

Questions for future research and management

Several broader questions emerged that may warrant consideration beyond the immediate scope and timeframe of the 2027–2030 joint management proposal. These were topics for possible future work, not agreed-upon commitments:

- How do changing climate and environmental conditions affect survival, productivity, recruitment, and the reliability of longer-term population forecasts?
- How can wolves on the Bluenose-East range be monitored in the future?
- How much movement occurs between neighbouring herds, particularly among younger females, and how can this be better measured?
- Which monitoring investments would most improve management decisions, and can cameras, automated counting, genetic methods, or newer collar technologies be validated cost-effectively?
- How can Indigenous knowledge, community-led observations, harvester information, and scientific datasets be better connected in ongoing herd assessment?
- How can changes in herd condition and population trend be evaluated in relation to harvest, weather, predation, and other influences without attributing effects prematurely?
- What additional monitoring would help assess the effects of roads, proposed infrastructure, and changing land use on caribou movements and habitat use?
- How can reporting and information-sharing across governments and neighbouring jurisdictions be improved to support a more complete picture of harvest and herd status?

Next steps

The technical discussions form part of the information available for the WRRB's review of the joint management proposal. The Board will consider the proposal and evidence submitted through the proceeding in developing its recommendations. This summary is intended to describe the topics discussed; it is not a transcript, a record of individual positions, or a statement of the Board's conclusions.