

February 4, 2010

Gary Bohnet, Deputy Minister
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Via Email

Eddie Erasmus, Director
Lands Department
Tłıchǫ Government
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Re: Information Request No. 3 – Joint Proposal on Caribou Movement Actions in Wek'èezhì

Dear Sirs:

The Wek'èezhì Renewable Resources Board (WRRB) has reviewed responses given by both Environment and Natural Resources (ENR) and Tłıchǫ Government for Information Requests No. 1 & 2. The Board thanks you for your responses; however, the WRRB has determined that we require clarification on a number of questions as well as additional supporting documents. Please find attached Information Request No. 3; one for ENR and one for Tłıchǫ Government. We ask that responses be provided from your government no later than **February 24, 2010 in digital format** as responses will be posted on our Public Registry.

The WRRB looks forward to receiving your reply. If you have any questions, please contact our office at (867) 873-5740 or jsnortland@wrrb.ca.

Sincerely,



J. Grant Pryznyk
Interim Chair

Attachments

ENR – Information Request No. 3:

1. Based on OLS model runs please provide the *probability* of different population trajectory outcomes under varied levels of harvest (ranging between 0 and 4% of the current herd size) and herd productivity (based on values measured since 2000).
2. Given that the relationship between predator and prey may change substantially with prey population size as a result of reduced effectiveness of strategies such as predator swamping, what evidence is there to assume predation rates have remained stable or declined with the decline in caribou population size? Please consider factors such as possible changes in predator functional response.
3. The estimate of natural cow mortality (14%) was based on an estimate from the 1980s when the herd was increasing. Please provide rationale for assuming the value of 14% is an appropriate estimate of natural mortality from 2006-2009 when the herd was in accelerated decline. How might the uncertainty associated with this assumption affect the certainty in the estimate of cow harvest?
4. Please explain how the effectiveness of the proposed management actions are to be monitored and evaluated? What criteria are to be used in such evaluation and how will management actions be adjusted? For example, will evaluation be based solely on the results of a calving ground survey in 2012? If so, what is the likelihood of detecting a change based on the error associated with such estimates? Are there other means of evaluating success?
5. Please provide the statistical rationale (e.g. power analysis) for justifying an increase in number of collars from 20 – 50 on the Bathurst herd with respect to meeting the objectives of better estimating mortality, herd fidelity and seasonal distribution (or others as you may define). How might sample size and changing age structure affect these estimates? What alternatives are available for meeting these objectives?
6. Please provide a proposed number of collars to be placed on bulls and the statistical rationale for this number with respect to meeting the objective of better documentation of seasonal distribution (or others as you may define). What alternatives are available for meeting these objectives?
7. What monitoring actions do you propose could be done by harvesters and what training opportunities and funds might be available for this purpose?
8. In IR response # 2.18 and # 2.35 you state that there is no proposed sampling of Bathurst caribou cows for body condition and pregnancy yet in Monitoring action # 2 and 3 health and condition sampling and assessment of pregnancy rates is proposed. Please clarify.
9. Please provide spreadsheet files with all available data on demographic parameters for the Bathurst, Ahiak and Bluenose East caribou herds from 1970 onward including means, standard error and sample size for the following: spring and fall calf:cow ratios, sex ratios; mortality; pregnancy rates; spring and fall back fat; spring and fall body mass.
10. The following reports are referred to in the Caribou Technical Report and indicated they would be provided as supporting documents. Please provide the following:

Chen et al. 2009a. Habitat indicators for migratory tundra caribou under a changing climate: calving ground and summer range. Draft paper submitted to Climatic Change.

Chen et al. 2009b. Habitat indicators for migratory tundra caribou under a changing climate: winter and pre-calving migration ranges. Draft Paper submitted to Climatic Change.

Gunn and Poole. 2009. Environmental trends across the range of the Bathurst Caribou Herd and timing of the arrival of cows on their calving ground 1996-2009.

Tłıchq Government – Information Request No. 3:

We understand that the elders will be addressing a number of topics during the public hearing.

However, given the limited time that will be allotted to speakers, we would like to encourage you to provide us with some written answers based on the traditional knowledge of your elders and harvesters.

1. How do caribou bulls protect cows and calves during the summer months?
2. How do caribou bulls protect cows and calves during the winter?
3. Do caribou bulls have a role to ensure cows and calves can access food during the winter?
4. What do caribou bulls do when wolves approach the herd?
5. What environment do caribou use between mid-June and mid-August – when calves are still fairly young?