

**Background (f/ Meeting notes)****GNWT comments on dAS Table 5-2 Boreal Caribou Population Health Adequacy 4.1:**

**Comment** Under section 3 of the ToR, it states that the developer should provide the rationale for any items that cannot be addressed. The GNWT would like to identify that it is not possible to provide population trends for boreal caribou within the North Slave region as the data does not currently exist and it would take multiple years to obtain population trend information. The GNWT can provide general population trends for the entire NT boreal caribou range. The GNWT will provide all the publically available relevant information it has during its assessment.

**Recommendation** Please recognize that boreal caribou population trends cannot be specific to the North Slave region and that the trends can only be applied to the entire NT boreal caribou range.

**Oct 28 [Board Response]:** The Board recommends that the GNWT consult with the WRRB and ECCC on boreal caribou ranges. If the parties can agree that trends can only be applied to the entire NT range, the Board will accept that conclusion with an associated rationale. If an agreement cannot be made, the Board will expect information specific to the North Slave region, as per the Adequacy Statement (PR#70). The Review Board notes the distinction between the assessment of boreal populations and the assessment of disturbed habitat. The Review Board believes that anthropogenic disturbances, including fire, and climate change disturbances can be assessed in the North Slave Region and be used to interpret habitat disturbances in threshold determination. When reviewing habitat disturbances in the North Slave region, please note the additional considerations on interactions with fire for both impact- and cumulative effect assessments.

**Action:** No change, unless with supporting rationale and consensus from ECCC and WRRB.

**WRRB response to Review Board request re: assessing boreal caribou population trends to NT range:****Summary:**

In reference to the Review Board's request re: agreement among GNWT, WRRB and ECCC on population trends only being applied to the entire NT range, the WRRB does not agree that trends can only be applied to the NT range. Given the lack of long-term monitoring data in Wek'èezhìi, and the indication that there may be insufficient data for assessing trends in NT1, the WRRB has concerns that accurate population trends cannot be assessed at either scale. However, the WRRB also believes if at all possible, an attempt at assessing the population trend at the NT1 scale should be made. The WRRB believes that available information should be used to the fullest extent possible to assess the impacts of the proposed Tłıchq All Season Road (TASR) at the Wek'èezhìi scale, as the WRRB's mandate is specific to Wek'èezhìi, and the proposed development occurs within Wek'èezhìi. Though there are requirements under the Federal Species at Risk Act related to the NT1 scale, the NWT Range Planning process will also have region-specific actions implemented. The WRRB believes habitat-related assessments, in the absence of population trend data, can assist with determining the potential impacts of the proposed TASR on boreal woodland caribou in Wek'èezhìi. Further discussion is needed to provide additional clarity on the approaches that are being proposed, and what information the approaches will provide.

**Rationale:**

The Wek'èezhìi Renewable Resources Board (WRRB) has a mandate for wildlife, plant and forest management in Wek'èezhìi and adheres to the principles and practices of conservation in fulfilling its duties. The WRRB's primary focus is obtaining and reviewing information related to Wek'èezhìi, notably with regards to activities which may have significant impacts on wildlife in Wek'èezhìi. Overall, the

WRRB has concerns about the lack of data on boreal caribou population trends. This is a general concern with regards to management of a threatened species that may be subject to increased harvest as a result of restrictions to barren ground caribou, and with regards to how lack of population data may affect the assessment of impacts of proposed developments.

The WRRB acknowledges that GNWT provides rationale that assessment of boreal caribou population at the NT1 (national) scale is appropriate, given the use of the habitat disturbance population self sustainability model developed by the ECCC, and the availability of data. However, the Recovery Strategy for the Woodland Caribou, Boreal Population, in Canada (PR#38) also mentions that though some trend information exists for local study areas within the NWT, it is *insufficient* (emphasis added) to establish range-level trend (Appendix F; PR#38). GNWT clarifies in their rationale that information on population trends of boreal caribou in the NWT is limited to study areas within the Dehcho, South Slave and Gwich'in/Inuvialuit regions, and that variations in trends across the range are suggested. It is unknown if there has been sufficient improvement in the data collected since the publication of the Recovery Strategy to assess population trends at the NT1 scale. Also, though boreal caribou collaring and related surveys have occurred in the Sahtú (e.g. see 2004/2005, 2005/2006, 2006/07 and 2008/2010 Annual reports of the Western Northwest Territories Biophysical Study, available at: <http://www.enr.gov.nt.ca/programs/biodiversity/wsetern-nwt-biophysical-study>), it is unknown if data are currently in a form that can assist with assessing population trends at the NT1 scale.

The GNWT also provides rationale describing the difficulties with applying the ECCC model to the N. Slave range by noting the similarities between the N. Slave disturbance footprint and the SK1 range in Saskatchewan, further commenting on the difficulties of applying the model to the N. Slave region and how “speculative” the evaluation of boreal caribou population trend using the Recovery Strategy model would be. The GNWT concludes their rationale with:

*“GNWT will nevertheless evaluate the implications of habitat disturbance from the TASR project, in combination with fire and other potential future projects, at the scale of both the North Slave portion of the boreal caribou range and the entire NT1 boreal caribou range. GNWT will use the national recovery strategy model in interpreting the potential impacts of the project on likelihood of population self-sustainability at both scales, but will also acknowledge the uncertainty associated with applying the model to an area of the range with extensive fire disturbance and little human disturbance.”*

The GNWT also mentions in “GNWT commitments” that:

*“GNWT will develop a habitat suitability model for caribou to inform the impact assessment. This model will be based on the one used for the NICO mine EA and on other boreal caribou habitat selection studies conducted in other regions (Nagy 2005, 2006; Stantec 2013; Kelly unpublished). GNWT will compare the relative impact on caribou habitat from the different alternative routes identified in the project description, and can also consider impacts to caribou habitat as one of the criteria used to select from potential borrow sources.”*

The WRRB has concerns that boreal caribou population trends cannot be assessed for Wek'èezhìi given lack of population data, and that the Recovery Strategy indicates that establishing a range level trend is also not possible given the limitations of available data, a perspective that is supported by GNWT's indication that data are currently only available for Dehcho, South Slave and Gwich'in/Inuvialuit regions. The WRRB believes this clearly indicates that there is a need and priority to gather data which will assist in establishing population trends for both scales. Given limitations of population-related data, the WRRB appreciates that the GNWT will evaluate habitat disturbance at the NT1 and N. Slave scales, and that the ECCC model will be used for interpretation. The use of habitat data, in the absence of population trend data, is an approach that can provide insights into the status of boreal caribou in Wek'èezhìi. However,

overall concerns about the lack of population data in Wek'èezhìi, and the degree of uncertainty which may be associated with assessment of boreal population trends at the NWT and regional scales remains.

Given the lack of population trend data, the WRRB supports the use of habitat suitability models (e.g. RSFs), in addition to other methods which can provide insights on the possible status of the boreal population in Wek'èezhìi. The WRRB believes exploration of the impacts on population trends in Wek'èezhìi is possible through development of scenarios which describe possible changes in boreal caribou populations in relation to changes in habitat, both pre-and post TASR development. Though the WRRB appreciates that data are lacking for Wek'èezhìi, review of impacts to population trend based on availability of critical habitat, as well as insights from other regions and available literature, can be utilized to develop population trend scenarios which can inform discussion of the possible effects of habitat disturbance to the boreal caribou population in Wek'èezhìi– which is the appropriate scale of assessing population given the location and extent of the TASR. The draft NWT Boreal Caribou Recovery Strategy (PR#79) also mentions the estimate of 6000 to 7000 boreal caribou in the NWT is “*a crude estimate based on the estimated density of caribou in different regions (derived from community and scientific knowledge), multiplied by the size of the range in each region.*” Though it is understood that a precise measure of lambda is central to examining population trends with greater certainty, the WRRB believes that absence of certain data should not prevent use of novel approaches and expert opinion in utilizing available information to better inform the MVEIRB in their deliberations. As such, the WRRB supports GNWT using available information to inform the impact assessment, recognizing the degree of uncertainty inherent in developing scenarios which lack certain forms of information. The WRRB also believes that additional discussions are required to understand the details of the different methods which may be utilized to assess potential impacts to boreal caribou (see “Additional Comments” below).

The WRRB's primary focus is information relevant to making informed decisions in Wek'èezhìi, and given that the N. Slave region is currently well below the 65% minimum threshold for critical habitat (primarily due to fire), the WRRB agrees with the Review Board statement (PR#76, Board response to GNWT comment 22, dAS Table 5-2, re: Boreal Caribou Population Health Adequacy 4.1):

*“If an agreement cannot be made, the Board will expect information specific to the North Slave region, as per the Adequacy Statement (PR#70). The Review Board notes the distinction between the assessment of boreal populations and the assessment of disturbed habitat. The Review Board believes that anthropogenic disturbances, including fire (emphasis added), and climate change disturbances can be assessed in the North Slave Region and be used to interpret habitat disturbances in threshold determination. When reviewing habitat disturbances in the North Slave region, please note the additional considerations on interactions with fire for both impact- and cumulative effect assessments.” (emphasis added).*

#### **Additional comments on Meeting Notes and GNWT Commitments :**

##### **Accuracy of meeting notes**

The WRRB believes that the meeting notes capture the discussions which occurred. However, the WRRB suggests that the actual percentage of undisturbed habitat be provided rather than “<65%”, as the most up-to-date assessment indicates that post 2014 and 2015 fire seasons, the amount of critical habitat remaining in the NWT is between 65 and 66%. Given that 65% is viewed as a minimum threshold, it is important to clearly show how close NT1 is to crossing the threshold.

**Sources of baseline data and information to inform the Adequacy Statement response:**

In addition to the sources listed, the WRRB suggests the GNWT refer to materials related to the planning workshop held November 5-6, 2014, to discuss boreal caribou range plans and monitoring. The two day workshop was attended by WRRB staff, along with representatives from GNWT, SRRB and GRRB. During the workshop there was review of a contracted report which provided a literature review of monitoring rare and elusive species, as well as recommendations on survey design for boreal caribou. In addition, there was discussion on approaches to best get community input on boreal caribou range plans.

**GNWT commitments - overall:**

Overall, the WRRB is supportive of commitments mentioned. However, additional details would help to more fully understand the scope of GNWT's commitments provided in the meeting notes, and the WRRB suggests that further discussion to refine GNWT commitments will be needed. In addition, details regarding fiscal and staff support, as well as timelines would be of assistance. Comments are provided on specific commitments below.

**GNWT commitments – “Habitat”:**

The WRRB agrees that a habitat suitability model can help to inform assessment of the potential impacts of the TASR. However, further details need to be provided on how the proposed modelling would provide information on changes to boreal caribou habitat due to fire both prior to and post-TASR, with particular focus on habitat patch size and connectivity, and the possible barrier effects of the proposed all-season road. Though the GNWT commitment mentions use of other habitat selection studies which examine measurements of patch size (e.g. Nagy 2005) it is not clear how some of the concepts used in the previous studies will be incorporated into GNWT's commitment.

**GNWT commitments – “Wildlife Monitoring Plan(s)”**

The WRRB appreciates that the GNWT will commit to establishing a wildlife effects monitoring program for boreal caribou to assess their response to construction and operation of the TASR and to assess population trend for boreal caribou in the region. Though establishment of a wildlife effects monitoring program is required under s.92 of the NWT Wildlife Act, the WRRB has concerns about the development and implementation of such a program, given that fiscal constraints affect the type and frequency of monitoring.

The WRRB acknowledges that *“The Review Board believes that the WMMP is the appropriate place”* for showing coordination and cooperation among parties” (PR#76, Board response to WRRB comment #4, Table 5-2, re: Assessment Methodology /Valued Components/ Cumulative Effects Coordination). The WRRB strongly believes there is an opportunity to establish a boreal caribou monitoring program that provides information to a number of parties, while also allowing for cost savings and various efficiencies that would be lost if each party approached monitoring separately (see also PR#24, Proponent response to WRRB comment #3, WLWB ORS Review Summary Table and Attachments).

**GNWT commitments -“Offsets”:**

The WRRB acknowledges that the GNWT is committed to consider opportunities to restore other linear disturbances to offset the TASR (PR#24, Proponent response to WRRB comment #1 re: Species at Risk – Boreal Caribou). The concept of offsets has been discussed during the Jay Project Environmental Assessment (e.g. [http://www.reviewboard.ca/upload/project\\_document/EA1314-01\\_Report\\_of\\_Environmental\\_Assesment\\_and\\_Reasons\\_for\\_Decision.PDF](http://www.reviewboard.ca/upload/project_document/EA1314-01_Report_of_Environmental_Assesment_and_Reasons_for_Decision.PDF)), as well as the 2016 Bathurst and 2016 Bluenose East Caribou Herd Proceedings (e.g. <http://www.wrrb.ca/sites/default/files/TG-ENR%20to%20WRRB%20-%20Response%20to%20Bathurst%20Part%20B%20Report%20-%2025nov16.pdf>). However, details on how offsets (restoration and / or other options) would be implemented and assessed are needed.