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Department of Environment

Ministère de l'Environnement

February 12, 2010

Tannis Bolt  
Environmental Administrator  
Nunavut Impact Review Board

**via Email to:** info@nirb.ca

**RE: NIRB File # 07EN067: Comment Request Regarding a Potential Exemption for Golden Bull Resources' "SLAVE" project proposal**

Dear Ms. Bolt:

The Department of Environment (DOE) thanks the Nunavut Impact Review Board (NIRB) for the opportunity to provide comments on this amendment and extension request from Golden Bull Resources for the "Slave" Project.

DOE reviewed all submitted documents from Golden Bull Resources. The proponent is proposing to amend their current exploration program in the Slave geological province, in the Kitikmeot Region from 2010 to 2013.

DOE notes that one of the project properties is located within the known boundaries of a Bathurst Caribou herd calving ground. As such, DOE has provided information below which we believe the NIRB should consider in making its decision, and the proponent should take into account prior to undertaking the proposed new activities in this area.

DOE notes that the Contwoyto and Rockinghorse properties are located outside the current Bathurst calving area. However, the Hood property is located within the known boundaries of the Bathurst Caribou herd calving ground (Figure 1). Moreover, the proponent has proposed to do blasting, trenching, and channelling on all three properties at some point throughout the life of the permit (2010-2013).

The Bathurst Caribou herd is utilized by communities in Nunavut, Northwest Territories, and northern Saskatchewan (Boulanger *et al.*, 2004; Nesbitt and Adamczewski, 2009). Recent surveys completed by the Government of the Northwest Territories (GNWT) show a steep decline in the Bathurst caribou herd from an estimated 128,000 in 2006 to 31,900 in 2009. The severity of this rapid

decline and the extreme concern over the future of this population by all stakeholders, as of January 1, 2010 the GNWT placed an interim emergency measure to conserve the Bathurst Caribou herd by closing the harvest to all harvesters included subsistence harvesters in the winter range of the herd (GNWT ENR, 2009).

Modeling of various management regimes (Adamczewski et al 2009) shows a possible stabilizing of the herd with drastic harvest reductions and slow recovery if, in addition to no harvest, cows are healthy and calf survival is very high. Calving and post calving periods are critical life cycle periods influencing cow condition and calf survival.

The total annual range of the Bathurst herd covers an area of approximately 350,000 km<sup>2</sup> across Nunavut, Northwest Territories, and northern Saskatchewan. Of that range, a calving ground for the Bathurst herd has been identified in Nunavut, southwest of Bathurst Inlet. These locations selected by Caribou are finite and characterized by their remoteness and as a result low levels of disturbance, indicating that protecting known active calving grounds from disturbance events could aid in reducing both the amplitude and duration of the present documented severe declines. Due to the finite nature of these habitats, it is also important to consider potential damages to the organic layers and vegetation that may sustain long term damage through ground activities (see Forbes et al 2001 for a review).

Recent research has strengthened DOE's understanding of caribou responses to human activities during calving and post-calving periods. Sedentary (non-migratory) Caribou are adaptable and can tolerate human presence and in some cases increased levels of disturbance. There are limits to this tolerance and adaptability. Mainland Migratory Populations such as the Bathurst Herd have shown a quantifiable lack of tolerance for disturbance events as they have not the acclimation time for these events due to their extreme geographical movements. Modeling predicts that frequent interruptions to foraging on calving, post-calving, and summer ranges could stress the animals over time, reduce body condition, lower pregnancy rates, and increase calf mortality and that this would be even more of a risk in the Bathurst Caribou Herd which we know are already environmentally stressed (see Adamczewski et al 2009 for a review).

The Bathurst caribou population has large amounts of disturbance and development already occurring across its annual range and at least some of which has been shown to have caused disturbance by initiating avoidance behavior of migratory and wintering barren-ground caribou range. In DOE's opinion any new disturbances on calving grounds between the calving and post-calving periods (May - August) would exacerbate this situation further and should be avoided.

Based on the current status and trend of the Bathurst Caribou herd, and based on current research results and modeling of caribou responses to human



activities in particular during the critical calving / post calving periods, DOE recommends that during the period of May 15 to July 15 when caribou are observed the proponent should suspend all operations, particularly low-level overflights, blasting, and use of snow mobiles and all terrain vehicles outside the immediate vicinity of the camps. Furthermore, following July

15 if caribou are observed calving or post calving in the area, all activities should also be suspended until caribou are no longer in the area.

The Proponent should also be aware that it is illegal to actively use a helicopter to displace animals, as it is harassment under the *Wildlife Act* (Nunavut):

*73. (1) No person shall, unless authorized by a licence, (a) engage in any activity, other than harvesting, that is likely to result in a significant disturbance to a substantial number of wildlife; or (b) break into, destroy or damage any abode of a bear, fox, beaver, muskrat, weasel, wolf or wolverine outside any municipality or prescribed area.*

DOE recommends that the Proponent continue to monitor for wildlife during the duration of the project. Wildlife observations should be recorded as well as observations of critical habitats and wildlife features, and should be submitted to the DOE Regional Wildlife Research Office. All nuisance animals should be reported to the Regional Wildlife Office and the Regional Biologist for assistance.

In addition, DOE recommends that the project be granted a two year license in order for new information to be considered by NIRB when it becomes available.

Once again, the DOE thanks the NIRB for the opportunity to provide comments on this submission. Please contact us if you have further questions or comments.

Sincerely,



Simon Awa  
Deputy Minister

# Slave Project Proposed Areas

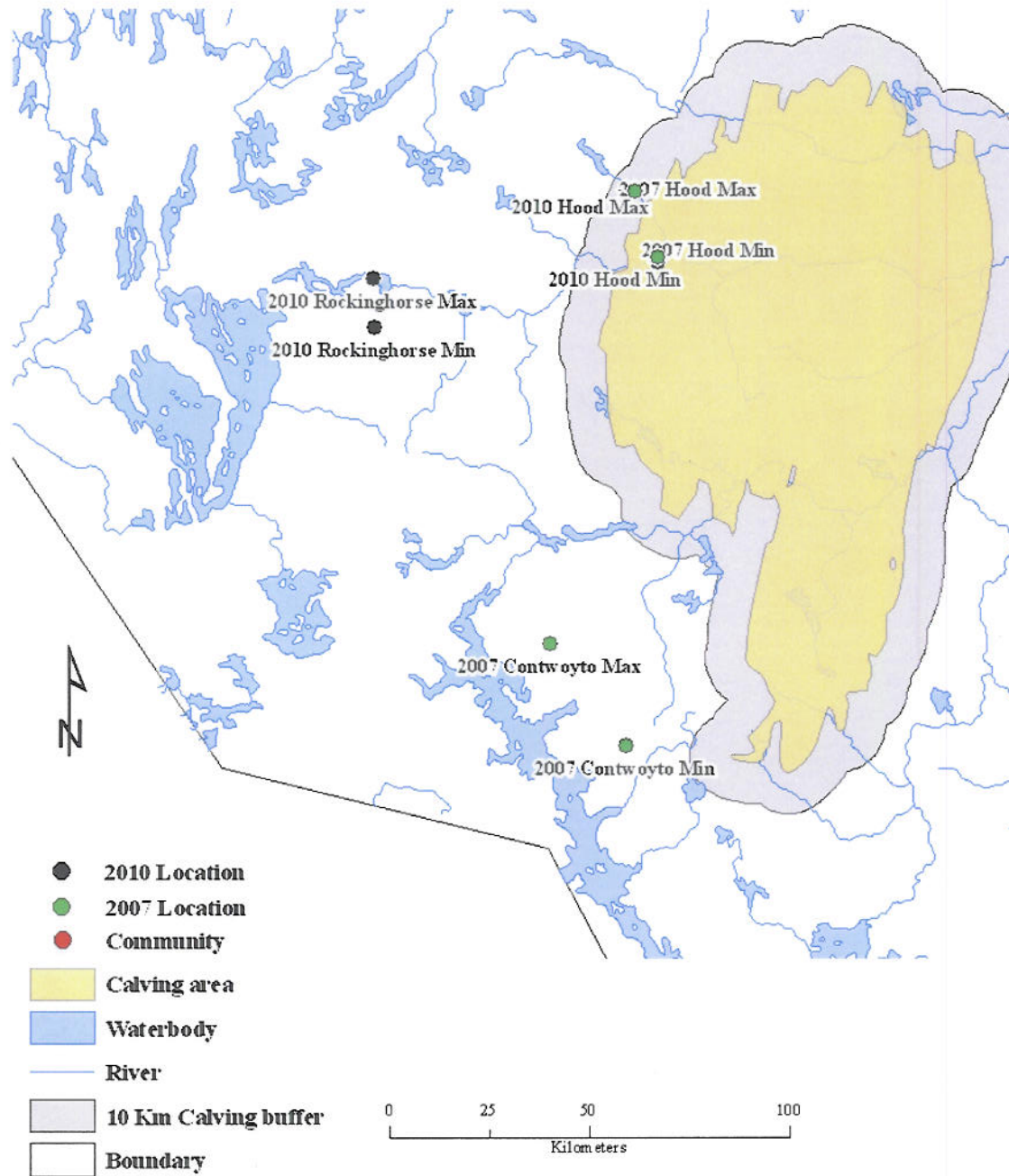


Figure 1: Golden Bull Resources' "SLAVE" project location

## References

Adamczewski, J, J. Boulanger, B. Croft, D. Cluff, B. Elkin, J. Nishi, A. Kelly, A. D'Hont, and C. Nicholson. Dec 2009. Bathurst Caribou Herd Decline: Draft Technical Report, Department of Resources, Wildlife and Economic Development, Government of the Northwest Territories.

Boulanger, J., Poole, K., Fournier, B., Wierzchowski, J., Gaines, T., and Gunn, A. 2004. Assessment of Bathurst Caribou moments and distributions in the salve geological province. Department of Resources, Wildlife and Economic Development, Government of the Northwest Territories.

Forbes, B.C., J.J. Ebersole and B. Strandberg. 2001. Anthropogenic Disturbance and Patch Dynamics in Circumpolar Arctic Ecosystems. *Conservation Biology* 15:954-969.

Nesbitt, L., and Adamczewski, J. 2009. Decline and Recovery of the Bathurst Caribou Herd: Workshops Oc. 1 & 2 and 5 & 6 in Yellowknife. Government of the Northwest Territories.