

BEVERLY AND QAMANIRJUAQ CARIBOU MANAGEMENT BOARD

1 February 2007

Leslie Payette
Manager Environmental Administration
Nunavut Impact Review Board
P.O.Box 1360
Cambridge Bay, Nunavut
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Dear Ms. Payette:

NIRB File No. 07EN001 - Starfield Resources-Ferguson Lake Project Proposal

On behalf of the Beverly and Qamanirjuaq Caribou Management Board (BQCMB), I am submitting comments on the proposal from Starfield Resources for new activities to support their mineral exploration project at Ferguson Lake, Nunavut.

The BQCMB is concerned about this proposed expansion of activities in the Ferguson Lake, Arviat-Ferguson Lake and Rankin Inlet-Ferguson Lake areas because these activities will occur on range of the Qamanirjuaq caribou herd during periods when caribou may be using those areas. Consequently there is potential for these activities to impact caribou.

Our primary concerns with this project proposal are that:

- the proponent does not appear to recognize the importance of the areas in which they will be operating to barren-ground caribou, or the likelihood that they will disturb caribou during their operations, and
- the proposal documents do not describe specific actions that will be taken to ensure that caribou will not be negatively impacted by the proposed additional project activities.

The information provided below is intended to help NIRB to identify the potential impact of the proposed project activities on caribou as well as actions that should be taken to avoid or minimize these impacts. This is in accordance with the mandate of the BQCMB, which is to advise governments and caribou range communities on ways to protect the Beverly and Qamanirjuaq caribou herds and their ranges.

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Importance of the Area to Qamanirjuaq Caribou

The importance of the Ferguson Lake, Arviat-Ferguson Lake and Rankin Inlet-Ferguson Lake areas to Qamanirjuaq caribou in relation to time periods proposed for additional project activities is described below. Information sources are as follows:

- The survey data and information about water crossings were compiled by the BQCMB in a map atlas which is available on the BQCMB website (www.arctic-caribou.com/parttwo/mapatlas.html).
 - The locations of satellite-collared caribou were compiled and published by the Government of Nunavut, and are also available on the BQCMB website (www.arctic-caribou.com/journey/).
- a) Ferguson Lake project site (airstrip) – proposed period of use: year-round
- According to government surveys conducted between 1957 and 1994, the Ferguson Lake project area lies at the west edge of both the traditional calving ground and post-calving area used by Qamanirjuaq caribou, and the herd has also used the area as late summer range. This means that this area has provided important habitat for pregnant female (cow) caribou, calving cows, and young calves during the period from late May to July, and in some years the herd has used the area as late as mid-September.
 - Data from satellite-collared Qamanirjuaq caribou cows show that the Ferguson Lake project area has been used by caribou during the period from June to early October between 1993 and 2006. This means that the area has provided important habitat for the herd during calving, post-calving, late summer and early fall periods.
 - The Nunavut Atlas identified Ferguson Lake as a caribou water crossing.
- b) Arviat-Ferguson Lake area (inland portion of right-of-way) – proposed period of use: February-April
- According to government surveys conducted between 1955 and 1993, the inland portion of this proposed right-of-way will cross through an area used by Qamanirjuaq caribou during the mid-March to April period, including key spring migration routes.
 - Data from satellite-collared Qamanirjuaq caribou show that the inland portion of this proposed right-of-way will cross through an area used by adult female Qamanirjuaq caribou during March and April between 1993 and 2006.
 - Information from surveys, satellite-collaring programs and local and traditional knowledge indicate that the area inland of Arviat is a major spring migration corridor for Qamanirjuaq caribou.

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- c) Rankin Inlet-Ferguson Lake area (right-of-way) - proposed period of use: February-April
- According to government surveys conducted between 1955 and 1993, the proposed right-of-way will cross through an area used by Qamanirjuaq caribou during the mid-March to April period.
 - Data from satellite-collared Qamanirjuaq caribou show that the proposed right-of-way will cross through an area used by adult female Qamanirjuaq caribou during the February to April period between 1993 and 2006.

Concerns and Recommendations

Based on the information provided above, it is clear that the following descriptions found in documents posted by the NIRB to support this project proposal are either incomplete or not correct:

- Application for Access to IOL – Amendment to Land Use License – Project Description: Table 3 lists only “calving grounds (northeast of the project area)” as an important habitat area for Qamanirjuaq caribou.
- NIRB Screening Part 2 Form – Winter Roads and Trails – Project Description - Biological and Socioeconomic Environment: This document lists caribou as one of the large mammals that inhabit the region encompassed by the trail route. However, the document states that “all of these species are fairly rare during the operational period of the trail” and “the chance of encountering these species is low”. Table 1 indicates that “no impact is expected” on wildlife, including habitat and migration patterns.

Nature of the concerns

The BQCMB’s concerns related to the proposed additional project activities and the overall project are outlined below.

A. Continued exploration across caribou calving and post-calving range

The BQCMB is concerned with the amount of mineral exploration underway and proposed across the range of the Beverly and Qamanirjuaq caribou herds. This includes exploration activities in the Kivalliq region of Nunavut, where mineral rights and land use permits are being issued frequently. Two maps available on the BQCMB website (www.arctic-caribou.com/mining.html) show land uses permitted across the caribou ranges (as of November 2006) and mineral rights on the calving grounds (as of September 2006) for these two herds.

The BQCMB does not agree with permitting exploration activities on calving and post-calving areas. The Board has recommended establishing long-term legislated

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protection for calving and post-calving areas and protecting caribou and other important habitats through improved Caribou Protection Measures. These are two of the many actions the Board recommended that governments take to safeguard Beverly and Qamanirjuaq caribou and their habitats several years ago¹.

B. Construction and operation of year-round airstrip at Ferguson Lake

1. The proposed airstrip will be located on the traditional calving and post-calving areas for Qamanirjuaq caribou (see above). Therefore it is possible that caribou could use this area and be subjected to disturbance during the most vulnerable parts of their life cycle (calving and post-calving). This possibility does not appear to be recognized by the proponent.
2. Construction of the airstrip is scheduled to begin in May 2007, and will presumably continue through the spring and summer period. This means that construction activities, including blasting, could occur near caribou while they are most sensitive to disturbance (while heavily pregnant, calving, or caring for young calves). This possibility does not appear to be recognized by the proponent.
3. Year-round operation of the airstrip with Twin Otter, Dash 8, and DHC-5 Buffalo sized aircraft will produce disturbance to wildlife in the area, including disturbance from aircraft at low levels (below 300 m) while taking off and landing. This disturbance could be particularly stressful if the flight path of aircraft crosses over large groups of calving or post-calving caribou.
4. Evidence is lacking that a meaningful conformity determination to the *Keewatin Regional Land Use Plan* has been conducted for the proposed new airstrip.
 - On the NIRB website, the document provided under the website link “Conformity on Airstrip” is actually a conformity determination for the STARCAMP Project, described as “Construct new camp to support mineral exploration”. No airstrip is mentioned.
 - Under the category of Low Level Flights, the determination reads: “The project proposal does not involve low flights and the proponent will report to the land managers any illegal or questionable low-level flight (conforms).”

This is not correct. A project that proposes construction and year-round operation of an airstrip will involve some instances when aircraft will be flying at less than 300m in altitude, including every time an aircraft lands or takes off. The

¹ Protecting Calving Grounds, Post-Calving Areas and Other Important Habitats for Beverly and Qamanirjuaq Caribou: A Position Paper (BQCMB 2004)

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Abandonment and Restoration Plan also mentions a helicopter landing pad, so obviously there will be aircraft flying below 300m away from the airstrip as well.

C. Rights-of-way from Arviat to Ferguson Lake and Rankin Inlet to Ferguson Lake

Past use by caribou of the areas around the inland portions of the proposed rights-of-way has been documented for the proposed period of operation (see above). Therefore the Cat train may encounter caribou along these routes in 2007, and negative impacts are possible.

Based on documented past use by caribou, the time and place when it is most likely that the Cat train would encounter caribou in 2007 is mid-March to April in the area inland from Arviat. The potentially greatest negative impact on caribou would occur if the Cat train intersects with groups of pregnant cow caribou as they move toward the calving ground, because:

- Cows are sensitive to disturbance at this time – Pregnant cows have minimal fat reserves and are moving long distances towards their calving grounds; they need all their reserves for travel and development of their young.
- Impacts on cows and their unborn young can occur if they use more energy to avoid human activities.
- Added stress to the cows may harm the health of the cow and could decrease calf production or survival.

Despite these potential impacts, the proponent appears not to have a plan for avoiding or reducing impacts on caribou should the Cat train encounter caribou along their routes. Their Right-of-Way Agreement – Project Description states only that “The presence of wildlife will be monitored and activities adjusted to avoid unnecessary disturbance”, but no details regarding mitigative actions are provided.

Recommendations:

1. No exploration or development activities should be allowed on the traditional calving and post-calving areas of the Qamanirjuaq caribou herd. Improved Caribou Protection Measures should be developed for regulating exploration activities in other important habitats.
2. A proper conformity determination should be conducted for the airstrip before screening of the proposal is completed by NIRB. The proponent should agree to abide by conformity requirements 2.15.3 and 5.4 before it is concluded that the proposal conforms to the *Plan*.

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3. If the proposed airstrip and transportation rights-of-way are permitted, provisions should be made to address potential disturbance effects of these activities on caribou, including those described below.
 - a) Permit conditions should include all “Wildlife” terms and conditions (#22-35) issued by NIRB in March 2006 in its screening decision for Starfield’s Ferguson Lake exploration camp (NIRB #06EN008). Because of additional potential impacts resulting from the proposed new activities, particular emphasis should be placed on:
 - the need for the Cat train to stop when it approaches migrating caribou, and to avoid blocking or diverting caribou movements.
 - the need for suspending operations (including blasting and use of the airstrip by aircraft) if the area around the camp and airstrip is occupied by cows and/or calves between May 15 and July 15th.
 - b) Aircraft pilots should be instructed not to fly over the calving and post-calving areas, or if absolutely necessary to do so for the minimum distance possible. This would be particularly important in any year when the caribou calving area and/or post-calving area is near the airstrip and helicopter pad (e.g., near the east shore of Ferguson Lake).
 - c) The proponent should be required to establish a caribou monitoring program to determine when caribou are moving across the Cat train route or toward the project site and airstrip. The monitoring system should ensure that advance notification is received for shutting down project activities (including blasting and aircraft activity) if caribou are approaching, to ensure that potential disturbance is discontinued before caribou reach the project area or the Cat train.
 - d) NIRB should ensure that regular inspection of project operations is conducted, and that NIRB’s permit terms and conditions and NPC’s conformity requirements are enforced.

Please let me know if you require further information or have any questions about these comments from the BQCMB.

Sincerely,

[original signed by]

Leslie Wakelyn
BQCMB Biologist

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