



information on the status of the Beverly and Ahlak herds is out of date. In June 2007 the DOE in partnership with the Government of North-West Territories will be undertaking population surveys of the Beverly and Ahlak caribou herds. Following this survey our knowledge on current trends within the herds and our understanding of the impacts of such projects on the herds will be increased.

Based on our lack of knowledge on the population status of caribou herds in the area; the DOE requests that the NIRB provides approval for this project to be time limited for a period of **one year only** with terms and conditions recommended in Section B below. This will allow us to review the project in subsequent years with improved knowledge of caribou herd population trends and potential impact of exploration activities.

B. Recommendations for current operations

Barren-ground caribou have their calves in June; they then must intensively feed from the times the calves are born until the end of the growing season which would fall between mid and late August. It is during these post calving and late summer periods that the caribou have to nurse calves as well as put on fat for the coming winter. Bulls must put on enough fat to get through the rut as well as the winter. If this feeding/fattening cycle is broken in any way calf mortality will increase and female and male condition will drop effecting future breeding cycles. Any air or ground disturbance that may disrupt caribou behaviour even if it's only a few hours a week could negatively impact caribou condition. Caribou require a continuous feeding cycle that includes feeding, ruminating (chewing their cud), resting, feeding and so on during the growing season in order to maximize their condition before the winter.

Based on these considerations and the sensitivity of the area, the DOE recommends that if NIRB approves operations in 2007 that the following conditions apply:

- During the months of **May** and **August**:
 - The proponent must employ fully independent wildlife monitors to determine when caribou cows and calves are in the areas of operation.
 - When caribou are present, the proponent shall suspend all blasting, over-flights of aircraft with an altitude of less than 610 metres above ground level and operation of ATV's and snowmobiles and any other ground based or water based mobile equipment.
 - During migration of caribou the proponent shall not block or cause any diversion to migration.

- During caribou migration, the proponent shall cease activities likely to interfere with migration such as airborne geophysics surveys or movement of equipment or personnel until the caribou have passed.
- The proponent must not construct a camp, cache fuel, conduct blasting or drilling operations, operate ground, air or water based mobile equipment within 10km of a 'designated caribou crossing'; or conduct drilling within 5km.
- During the months of **June** and **July**:
 - The proponent, with the independent wildlife monitor, shall undertake daily high altitude (300m) aerial reconnaissance to determine whether caribou cows and calves are present within a 20km radius of the site, or if caribou are migrating through the site. If caribou are observed the monitor will instruct the proponent to suspend any activities within 10 km of the sightings.
 - At the end of each month, the proponent will submit a report to the DOE detailing when and how, these measures have been implemented. The time when caribou are present in the project area can corroborated with the DOE caribou satellite collar data.
 - During these months the DOE Conservation Officers will be inspecting this site and others within, or close to caribou calving and post -calving grounds randomly twice a month to ensure compliance with these measures.

2. Raptor Nesting Areas

Raptor nests occur throughout Nunavut, and most of the prospecting areas likely contain at least a few nest sites. Take care not to disturb nesting raptors from 15 April to 1 September by staying at least 1.5 km away from them when in transit by aircraft, and to avoid approaching them closely while on foot.

The following is a list of general precautions that must be considered when conducting prospecting activities near Peregrine Falcon, Gyrfalcon, and other raptor nests (most of these precautions will also apply to all nesting bird species):

1) Disturbance is most harmful early in the nesting period (May and June for Peregrine Falcon and Gyrfalcon, similar for Rough-legged Hawk):
 Raptors will attempt to maximize their chances of successfully raising young. If they decide early in the breeding period that their nest is at risk, they may abandon it. If nests are disturbed at this stage of nesting, there may not be sufficient time to renest. All disturbances to nests during the early part of the

nesting cycle must be avoided (avoid nest sites from late May through to mid-July).

2) Individuals show variability in their response to disturbance: Different birds will show different responses to varying levels of disturbance. This may result from the general health of the bird, weather conditions, previous life experiences, and adaptability. Therefore, treat all nest sites with equal precaution, regardless of the response of the bird. Do not disturb raptor nests during conditions of poor weather (rain, snow, high winds).

3) Approaching the nest site near the time of fledgling (where chicks fly away from the nest) often leads to premature nest departure: During the last few weeks of nesting, severe disturbance at the nest often causes young raptors to jump out of the nest. This can cause death from exposure, predation, starvation, or trauma from the fall itself. All activity within 100m of a nest site during the latter part of the nest stage (10-20 August for peregrine falcons in this region) must be avoided.

Further details on raptor nests and disturbance mitigation can be obtained from the Wildlife Officer in communities closest to the area of interest, or from regional biologists.

DOE Contacts (Wildlife Division)

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II. WASTE MANAGEMENT

1. Spill Contingency Plan

Based on the DOE *Spill Contingency Planning and Reporting Regulations*, *Contingency Planning and Spill Reporting in Nunavut: a Guide to the New Regulations*, and *Guideline for the General Management of Hazardous Waste in Nunavut*, we have the following comments and recommendations to make:

- Page 9 of the *Spill Contingency Plan* stated that the proponent will “contact Federal and Territorial regulatory agencies to identify appropriate disposal methods before disposing of contaminated material. The government does not provide disposal instructions for spilled and/or contaminated materials. It is the proponent’s responsibility to develop a complete plan which addresses the steps to be taken from the start of the spill, up to and including the final clean up and disposal. Regulatory agencies such as DOE can review the final plan to assess its adequacy and provide advice at that time.

- It is unclear whether or not the contact number provided is a 24-hour number. The 24-hour number for the persons responsible for activating the contingency plan is required as this ensures the employee discovering the spill can activate a response and provides a 24-hour point of contact for the authority investigating the spill.
- All fuel storage containers should be situated in a manner that allows easy access and removal of containers in the event of leaks or spills. Large fuel caches in excess of 20 drums should be inspected daily.
- The DOE monitors the movement of hazardous wastes from generators, carriers to receivers, through a tracking document (Waste Manifest). A Waste Manifest must accompany all movements, and all parties must register at DOE with Robert Eno at reno@gov.nu.ca or (867) 975-7748.

2. Camp Incinerator

The Government of Nunavut is signatory to *Canada-Wide Standards (CWS) for Dioxins and Furans*, and *Canada-Wide Standards for Mercury Emissions*. The DOE therefore requests the proponent ensures incineration emissions comply with the CWS by implementing the following recommendations.

For a camp of 10 to 50 people, the proponent shall apply appropriate technologies to ensure complete combustion of wastes, and the use of a dual chamber, forced-air incinerator is recommended. The proponent shall make determined efforts to achieve compliance with the CWS. Efforts should include the implementation of a comprehensive waste management strategy (especially waste segregation) that is designed to reduce and control the volumes of wastes produced, transported, and disposed of. The Waste Management Strategy should consider and include:

- Purchasing policies that focus on reduced packaging,
- On-site diversion and segregation programs (i.e. the separation of non-food waste items suitable for storage and subsequent transport and disposal or recycling).
- If incineration is required, ensure diligent operation and maintenance of the incineration device and provide appropriate training to the personnel operating and maintaining the incinerator.

Waste wood treated with preservatives such as creosote, pentachlorophenol or heavy metal solutions should not be burned. Additionally, plastics, electrical wire, asbestos and building demolition wastes (except clean wood) are wastes likely to produce dioxins and furans when burned and should be excluded from incineration. Furthermore, hazardous wastes such as waste oil managed via incineration is prohibited.

III. ABANDONMENT & RESTORATION

Based on the DOE's *Guideline for Contaminated Site Remediation*, we recommend the following:

- Drill holes that encounter uranium mineralization with a content greater than 1.0% over a length of more than 1 meter with a meter-percent concentration greater than 5% should be sealed by cementing over the entire mineralization zone; this should be at least 10 meters above and below each mineralization zone.
- Drill holes should be sealed by cementing the upper 30 meters of the bedrock or the entire depth of the holes; whichever is less.
- Drill cuttings with a uranium concentration of greater than 0.05% should be disposed of down the drill hole and sealed.
- Core storage areas should be located at least 100 meters from the high waterline of all water bodies.
- Gamma radiation levels of a long-term core storage area should not be greater than 1.0 μSv , and should never exceed 2.5 μSv . Instruments that measure radiation in counts per second should be converted to μS .
- Final inspections of the entire site should be conducted by the proponent and lead agency to make sure that all areas of the site have been reclaimed as much as possible to its previous condition. Soil samples and pictures before and after the project would make this process easy on the proponent and leading agencies involved in determining areas of concern.

IV. THE CANADIAN HERITAGE RIVERS SYSTEM

This project is in close proximity to a Canadian Heritage River, namely Thelon River. The DOE therefore has the following comments to make.

The Canadian Heritage Rivers System (CHRS) is a Canada's national program for freshwater conservation, and management plans detailing how their heritage values will be protected have been lodged with the CHR Board; the plans can be obtained at: http://www.nunavutparks.ca/bulletin_board/publications.cfm

In Nunavut (as elsewhere in Canada), it is a cooperative program between the Government of Canada and the Government of Nunavut. The objectives of the program are to give national recognition to Canada's outstanding rivers and to ensure long-term management that will conserve their natural, cultural and recreational values for the benefit and enjoyment of Canadians, now and in the future.

Recognizing the voluntary nature of heritage river stewardship, the DOE requests that activities conserve and protect the heritage resources along the river, and to the extent possible do not detract from the recreational use and enjoyment of the river. Where possible the proponent should be required to locate camps or facilities outside the one kilometer buffer from the river, as outlined in the Heritage River Management Plan. Additionally the DOE requests that the INAC takes extra measures to ensure that proper monitoring, inspection and enforcement of permit requirements occurs.

The DOE thanks the NIRB for giving us the opportunity to review and provide comments on the North Thelon project proposal. Please contact us if you have any further questions or comments.

Yours sincerely,

Original signed by

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