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Department of Environment

Ministère de l'Environnement

Jan. 26, 07

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**via Email to:** [licensingtrainee@nunavutwaterboard.org](mailto:licensingtrainee@nunavutwaterboard.org)

**RE: NWB FILE # 2BE-SAN – Western Uranium Corporation – Sand Lake Project**

The Department of the Environment (DOE) thanks Nunavut Water Board for the opportunity to provide comments on the Western Uranium Corporation Water License application.

DOE is aware that the proposed permit concerns exploration for Uranium. We are aware that Nunavut Planning Commission has determined low level exploration for Uranium to be in conformity with the Keewatin Regional Land Use Plan despite the following;

(pg.65) of the Keewatin Regional Land Use Plan states:

*3.5 - Uranium development shall not take place until NPC, NIRB, NWB and the NWMB have reviewed all of the issues relevant to uranium exploration and mining. Any review of uranium exploration and mining shall pay particular attention to questions concerning health and environmental protection. (A) (CR)*

*3.6 – Any future proposal to mine uranium must be approved by the people of the region.*

There is concern that the issuing of permits relating to exploration for uranium may lead to an expectation that further development of these projects will be permitted.

The Keewatin Regional Land Use Plan conformity requirements stipulate that the completion of a review to address environmental and health related matters on uranium exploration and mining, in advance of any uranium development. NPC has stated that there needs to be a full discussion and debate of all the issues as well as further moral and political questions of Kivalliq

residents, involving community organizations, co-management bodies, and government before uranium development is considered. In particular, the Beverly and Qamanirjuaq Caribou Management Board (BQCMB) should be consulted given that it was established as a direct result of the concerns of communities in the Thelon basin, particularly Baker Lake, over uranium development.

DOE continues to recommend that the actions and conformity requirements as outlined in the Keewatin Land Use Plan be concluded in advance of any further permitting of uranium development in the Kivalliq region; whereby NWB, NPC, NIRB, and the NWMB conduct a review of all issues relevant to uranium exploration and mining and that the proponent engage in community consultations.

## **General Comments**

The proponent has indicated that the proposed camp is located at an abandoned airstrip and camp area. DOE requests that the Water Board solicit further information from INAC on the status of this site. Has the site been fully restored from previous proponents? Who is responsible for the clean up of this site? Will the new proponents be taking over responsibility for any needed restoration work?

Additionally DOE has the following comments:

### ***i. The Thelon Game Sanctuary***

The Thelon Game Sanctuary Management Plan, approved by INAC in 2005, proposes the Beverly Calving Ground to the north east of the Sanctuary as a Special Management Area. The proposed project is located within this area. The plan suggests the following;

*‘ The second Special Management Area proposed lies along the existing northeastern boundary of the Sanctuary and extends over the area between the Garry Lakes and the Aberdeen Lake area. This area, referred to as the Aberdeen Lake SMA, is locally recognized as a calving area for the Beverly Caribou Herd. The area extends southward to Marjorie Lake and the Dubwant River to encompass important crossing areas along the Thelon River. Like the Tyrrell Lake SMA in the southeast, this area is critical to protect a natural resource at the heart of the Sanctuary and its conservation mandate. The caribou herds of this region are a critical resource to both the Inuit and Dene people of the Thelon region and the success of maintaining those herds in healthy numbers is essential. Special considerations for the management of the area to the northeast of the existing Sanctuary must be consistent with the intent of the Management Plan for the Sanctuary while land use is administered locally*

*through the appropriately designated regulatory body. The SMAs are critical to achieve two fundamental objectives: to ensure that resource specific development and use restrictions are applied to activities that could influence the integrity of resources critical to the sustainability of the Sanctuary even though the resources are not completely contained by the Sanctuary; and, Thelon Game Sanctuary Management Plan Without Prejudice 43 to give a direct local conservation input into the regulatory process for land use adjacent to the Sanctuary. The SMAs are not intended to eliminate development or other land use activity, rather to ensure that such activities are especially sensitive in their approach and timing to the resource values of the area. The role of the Management Authority, therefore, is to provide input to the land use permitting process, outlining resource concerns and optional mitigating measures. Such input should be a recognized step in the process and should precede permit approval. The SMAs highlight the areas of critical resources linked to the Sanctuary and identify the area within which the Management Authority will be a contributing participant in the land use regulatory process'.*

DOE has asked INAC to be mindful of the sensitivities and importance of the area, recognize that it has yet to establish a Management Authority in keeping with the approved Thelon Sanctuary Management Plan and to initiate discussions with the community of Baker Lake, the DIO and the GN on appropriate interim conservation measures in keeping with the Management Plan recommendations.

## **ii. Caribou Critical Wildlife Areas**

*'1990. Critical Wildlife Areas in NU, as defined in the Consolidation of Critical Wildlife Areas Regulations RRNWT 1990, c. W-3, as duplicated for NU by s. 29 of the Nunavut Act.*

The Department of Environment would like to minimize all human disturbances to caribou where possible. The proposed exploration, drilling and camp fall within Critical Wildlife Areas intended to protect the Beverly Caribou calving grounds.

When prospecting will occur in or near caribou calving grounds, disturbance to caribou must be minimized. Some of the caribou protection measures that are typically enacted from May 15 to July 15 include DOE recommend the following measures be applied when operating in or near caribou calving or post calving grounds or spring migration routes, and water crossings; when caribou are most sensitive to human disturbances:

### **1. Caribou Protected Areas:**

(a) DOE recommend that the proponent not conduct any activity between May 15 and July 15 within the Caribou Protection Areas.

(b) On cessation of activities the proponent should remove from the zone all personnel who are not required for the maintenance and protection of the camp facilities and equipment.

## 2. Calving Areas Outside Caribou Protected Areas

(a) In the event that caribou cows calve outside of the Caribou Protection Areas, the Proponent should suspend operations within the area(s) occupied by cows and/or calves between May 15 and July 15. DOE Wildlife Office should be contacted to verify location of calving areas outside of Caribou Protected Areas.

b) In the event that caribou cows and calves are present, the proponent should suspend:

(i) blasting;

(ii) overflights by aircraft at any altitude of less than 600 meters above ground level; and

(iii) the use of snowmobiles and ATVs (all-terrain vehicles) outside the immediate vicinity of the camp.

3 (a) During migration of Caribou, the proponent should not locate any operation so as to block or cause substantial diversion to migration.

(b) The proponent should cease activities that may interfere with migration, such as airborne geophysics surveys or movement of equipment, until the migrating caribou have passed.

4. (a) The proponent should not, between May 15 and September 1, construct any camp, cache any fuel or conduct any blasting within 10 km of any "Designated Crossing". DOE Wildlife Office should be contacted for locations of designated water crossings.

(b) The proponent should not, between May 15 and September 1, conduct any diamond drilling operation within 5 km of any "Designated Crossing".

Further details on Caribou Protection Measures can be obtained from the Wildlife Officer in communities closest to the area of interest, or from the Regional Biologist (Kivalliq: Mitch Campbell, 867-857-2828)

## RAPTOR NESTING SITES

The project area is located close to 2 known nesting areas for Peregrine Falcon. 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 re-nest. 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 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 the Ecosystems Biologist (Michael Setterington, 867-857-2828).

Finally, unless there is a specific requirement for low level-flights, aircraft activities should maintain a minimum altitude of 610 meters above ground level in places where there are occurrences of wildlife such as caribou, bear, wolves and birds. In areas where there are observed large concentrations of birds, flight level is restricted to 1,000 meters vertical distance and 1,500 meters horizontal distance from the birds. These guidelines are provided as a general standard, and exceptions may arise on a case-by-case basis. As a good practice, it is recommended to avoid critical and sensitive wildlife areas at all times by choosing alternate flight corridors.

## Spill Contingency Plan

The proponent has included a Spill Contingency Plan, however there are several outstanding items:

### Fuel & Chemical Storage

- The proponent has not indicated the distance of fuel and chemical storage from water bodies. To prevent spreading in the event of a spill, fuel stored in drums should be located, whenever practical, in a natural depression a minimum distance of 90 feet from all streams, preferably in an area of low permeability.
- 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.

### Spill Kits

- Please provide an inventory and the location of the response and clean up equipment available to implement the plan.

The proponent is referred to Department of Environment's (DoE's) *Spill Contingency Planning and Reporting Regulations* and *A Guide to the Spill Contingency Planning and Reporting Regulations*.

## Abandonment & Restoration

### Restoring Drill Holes

- Drill holes should be backfilled or capped at the end of the project. The sumps should only be used for inert drilling fluids, not any other materials or substances. The sumps should be properly closed out at the end of the project.

### Drilling

- The proponent should be referred to best practices for uranium exploration in Saskatchewan. Please see: *"Mineral Exploration Guidelines For Saskatchewan"- Saskatchewan Environment*
  - o Drill mud solids or cuttings with a uranium concentration greater than 0.05% are to be disposed of down the drill hole and sealed.
  - o Any Drill hole that encounters uranium mineralization with a content greater than 1.0% over a length of 1 meter, with a meter-percent concentration greater than 5.0 should be sealed by cementing over the entire length of the mineralization zone and not less than 10 meters above or below each mineralization zone.

Thank you,

Michael Mifflin

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**Michael Mifflin**

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