

June 29, 2012

VIA E-MAIL

Nicole Spencer  
Environmental Assessment Officer  
Mackenzie Valley Environmental Impact Review Board  
P.O. Box 938  
Yellowknife, NT X1A 2N7

Dear Ms. Spencer,

**Re: EA0809-003 (2008), Tyhee NWT Corp.,  
Yellowknife Gold Project: Information Requests (Round 1 – Part 2)**

Please find attached GNWT's Part 2 of the Round 1 Information Requests for the Tyhee NWT Corp. Yellowknife Gold Project Environmental Assessment. Part 1 was submitted to the Review Board on June 8, 2012.

If you have any questions or concerns regarding this request, please contact me at (867) 873-7905 or [loretta\\_ransom@gov.nt.ca](mailto:loretta_ransom@gov.nt.ca).

Sincerely,



Loretta Ransom  
Environmental Assessment Analyst  
Environmental Assessment and Monitoring  
Land and Water Division  
Department of Environment and Natural Resources

Attachment

cc. Doug Levesque, Vice President, Operations, Tyhee NWT Corp. (via e-mail)  
Hugh Wilson, Vice President, Environment and Community Affairs, Tyhee NWT Corp. (via e-mail)

**Government of the Northwest Territories  
Information Request Submission Part 2 for the Tyhee NWT Corp.  
Yellowknife Gold Project Environmental Assessment  
(EA0809-003)**

Submission Date: June 29, 2012

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## **Abbreviations and Acronyms**

DAR	Developer's Assessment Report
GNWT	Government of the Northwest Territories
IR	Information Request
LSA	Local Study Area
NWT	Northwest Territories
RSA	Regional Study Area
TOR	Terms of Reference
Tyhee	Tyhee NWT Corporation
YGP	Yellowknife Gold Project

## **GNWT-12: Wildlife Field Programs**

**IR Number:** GNWT-12  
**Source:** Government of the Northwest Territories (GNWT)  
**To:** Tyhee NWT Corp. (Tyhee)  
**Subject:** Wildlife Field Programs  
**DAR Section:** 2.12 Wildlife; Appendix E (2004 & 2005 Wildlife field programs)  
**TOR Section:** ---

### **Preamble:**

The DAR includes summaries of the Wildlife field programs conducted in 2004 and 2005 (Appendix E):

- A breeding bird survey;
- Owl survey;
- Waterfowl survey;
- Aerial moose and caribou surveys;
- Carnivore (esker) survey; and
- Other incidental wildlife observations.

Two study areas were demarcated for the wildlife field programs: a RSA and a LSA (Figure 2.12-1). The aerial ungulate surveys were completed in the 625 km<sup>2</sup> RSA centred on the existing YGP camp site. Additional ground based wildlife surveys were conducted within a smaller irregular shaped LSA approximately 144.75 km<sup>2</sup>.

Establishment of a solid baseline data record is important towards effective monitoring, mitigation and follow-up during the life of the project.

### **Request:**

1. Has more baseline data within the RSA and LSA been collected and reported on since the 2004/05 wildlife baseline studies at the Yellowknife Gold Project location? If yes, please provide the data and any associated reports so that they can be included in this Environmental Assessment process.

## **GNWT-13: Wildlife Monitoring and Management Plan**

**IR Number:** GNWT-13  
**Source:** Government of the Northwest Territories (GNWT)  
**To:** Tyhee NWT Corp. (Tyhee)  
**Subject:** Wildlife Monitoring and Management Plan  
**DAR Section:** 2.12; 6.6, Appendix E  
**TOR Section:** 3.3.3 Wildlife and Wildlife Habitat  
**IR Response:** Tyhee Response to IR 1-2-7

### **Preamble:**

Tyhee states in the response to IR 1-2-7 that they intend to prepare a more detailed, comprehensive wildlife monitoring and management plan following project approval. More detailed information on the Wildlife Monitoring and Management Plan is required during this environmental assessment to assess the effectiveness of proposed mitigation measures and management plans and to determine how impact predictions will be tested. This includes discussion on how Tyhee will take an adaptive approach to monitoring and impact mitigation/management.

In addition to the baseline data collected (Appendix E); the requirements of the Terms of Reference Section 3.3.3, Wildlife and Wildlife Habitat; information provided in the DAR, Section 2.12 and 6.6; and Tyhee's IR 1-2-7 response, please answer the following:

### **Request:**

1. Tyhee indicates in their IR 1-2-7 response to MVEIRB that *"Changes in the health of Bathurst caribou because of Project activities are unlikely. Also, given the low probability of occurrence in the YGP area, no specific monitoring guidelines or procedures are proposed"*. Tracking of barren-ground caribou movements via satellite collars has shown substantial year-to-year variation. For example, in winter 2011-2012, several Bathurst collared caribou were on the west shore of Artillery Lake (east of Great Slave Lake) in December, then moved back to the west for the main part of the winter. The possibility exists that Bathurst caribou may make future use of the area that includes proposed Tyhee gold operations. How would Tyhee address monitoring, mitigation and management for caribou in the event that caribou and their range begins to overlap with proposed YGP area at an increasing and more frequent occurrence?
2. Please provide a more detailed outline of the proposed Wildlife Monitoring and Management Plan. For each species to be monitored, include:
  - a. Specific impact predictions to be tested for each phase of the project, including the temporal or spatial scale at which they will be investigated, proposed methods/sampling protocols, potential partnerships and roles of partners in monitoring.

- b. Which mitigations outlined in the Wildlife Monitoring and Management Plan will be evaluated and how this will take place, including methods, potential study designs and the way in which the information generated will be used to minimize impacts to wildlife.
- 3. Provide greater detail on how Tyhee will structure wildlife monitoring in an adaptive manner as (i) results from existing Wildlife Monitoring and Management Plan are analyzed; and (ii) new methods and research emerge. Please include information on how the Wildlife Monitoring and Management Plan will be evaluated and adapted, who will be involved in this process, and how often will this occur.

## **GNWT-14: Restricting Wildlife Access to Project Components**

**IR Number:** GNWT-14  
**Source:** Government of the Northwest Territories (GNWT)  
**To:** Tyhee NWT Corp. (Tyhee)  
**Subject:** Restricting Wildlife Access to Project Components  
**DAR Section:** 6.6.1.6 & 6.6.2.4  
**TOR Section:** 3.3.3 – Point 5

### **Preamble:**

Point 5 of the Terms of Reference, Section 3.3.3, Wildlife and Wildlife Habitat states, *“The developer’s proposed strategies for restricting wildlife access to any project component that may threaten the ability of wildlife to thrive in the area, including open pits, toxic tailings facilities, roads and airstrips”*;

The information provided by Tyhee in DAR Sections 6.6.1.6 and 6.6.2.4, as indicated in the Concordance Table, does not clearly identify the specific strategies that will be used to restrict wildlife access to project components such as the open pits, toxic tailings facilities, roads and airstrips.

### **Request:**

1. Please provide a detailed pathways of effects analysis for wildlife access to project components, specifically open pits, toxic tailings facilities, roads and air strips.
2. After completing the pathways of effects analysis, please clearly identify specific strategies and mitigation measures, such as those identified in DAR Sections 6.6.1.6 and 6.6.2.4 (or elsewhere in the DAR) and in IR Response 1-2-7, that will address those predicted effects.



## **GNWT-15: Mitigation Measures**

**IR Number:** GNWT-15  
**Source:** Government of the Northwest Territories (GNWT)  
**To:** Tyhee NWT Corp. (Tyhee)  
**Subject:** Mitigation Measures  
**DAR Section:** 6.6.1.6 Mitigation Measures (Page 494)  
**TOR Section:**

### **Preamble:**

On page 494 (Section 6.6.1.6, Mitigation Measures), Tyhee indicates that, *“Other possible effects on wildlife and wildlife habitat in the YGP area could be associated with air emissions, odours, noise and dust generation. However, the limited air emissions, odours and noise associated with the operation of standard internal combustion engines operating on the site, the occasional aircraft, and the amounts of dust generated mainly by moving vehicles and trucks are not anticipated to have a measurable effect on wildlife or wildlife habitat in the YGP area.”*

### **Request:**

1. Please provide more detail as to how Tyhee came to this conclusion through a detailed pathways of effects analysis.
2. Please indicate how Tyhee will confirm this prediction throughout the life of the YGP.

## **GNWT-16: Regional Scale Monitoring**

**IR Number:** GNWT-16  
**Source:** Government of the Northwest Territories (GNWT)  
**To:** Tyhee NWT Corp. (Tyhee)  
**Subject:** Regional Scale Monitoring  
**DAR Section:**  
**TOR Section:**

### **Preamble:**

Tyhee indicates in IR 1-2-7 response to MVEIRB that *“Changes in the health of Bathurst caribou because of Project activities are unlikely. Also, given the low probability of occurrence in the YGP area, no specific monitoring guidelines or procedures are proposed.”* Contributing to regional monitoring efforts, however, is an important consideration.

As stated above in IR GNWT 13, Tracking of barren-ground caribou movements via satellite collars has shown substantial year-to-year variation. For example, in winter 2011-2012, several Bathurst collared caribou were on the west shore of Artillery Lake (east of Great Slave Lake) in December, then moved back to the west for the main part of the winter. The possibility exists that Bathurst caribou may in future make use of the area that includes proposed Tyhee gold operations.

Cumulative effects are the sum of multiple, sometimes small impacts. Each of them individually may have limited effects, but together can be significant. Caribou tend to avoid developed and disturbed areas, and each disturbed area reduces the ability of caribou to move to alternate ranges, and reduces the value of the habitat to caribou.

Recent discussions between GNWT and developers signal a growing interest in coordinating monitoring efforts amongst partners and monitoring at a regional scale. This approach:

- a) Recognizes that regional scale monitoring is most appropriate for determining how wide-ranging species are affected by development (particularly if sampling protocols are consistent across the region);
- b) Increases capacity to understand how the cumulative effects of disturbance impact wildlife (e.g., Johnson *et al.*, 2005); and
- c) Increases the potential to optimize the use of resources available for monitoring.

A regional scale approach is also most appropriate for determining how wildlife, such as wolves and barren-ground caribou, respond to mine activity. Barren-ground caribou monitoring at other mine sites has been done using a variety of methods, including use of aerial flights and use of GNWT-ENR's collar data.

### **Request:**

1. Is Tyhee willing to contribute to larger-scale monitoring of cumulative effects on barren-ground caribou and potentially carnivores such as wolverine and wolves?
2. Given the possibility that Bathurst caribou may in the future make use of the area that includes the proposed Tyhee project, please describe how Tyhee would structure

project specific caribou monitoring such that it fits within a broader regional approach and is consistent with monitoring methods at other mines.

**Literature Cited:**

Johnson, C.J, M.S. Boyce, R.L. Case, H D, Cluff, R.J. Gau, A. Gunn, and R. Mulders. 2005. Cumulative effects of human development on arctic wildlife. Wildlife Monographs No.160.