

WHALE TAIL PIT

THE FUTURE OF THE MEADOWBANK MINE



AGNICO EAGLE

WHALE TAIL ᓄᓐᓂᓐ ᐃᓕᓕᓐᓂᓐ ᓂᓐᓂᓐ
ᓂᓐᓂᓐ ᓂᓐᓂᓐ ᓂᓐᓂᓐ ᓂᓐᓂᓐ ᓂᓐᓂᓐ



PART v – TERRESTRIAL ENVIRONMENT

ᐃᓐᓂᓐ ᓂᓐᓂᓐ ᓂᓐᓂᓐ v - ᓄᓐᓂᓐ ᓂᓐᓂᓐ

TECHNICAL MEETINGS – DAY 1 – APRIL 28, 2017
ᐃᓐᓂᓐ ᓂᓐᓂᓐ ᓂᓐᓂᓐ - ᓂᓐᓂᓐ 1 - ᐃᓐᓂᓐ 28, 2017

WHALE TAIL $\text{mo}^{\text{c}} \Delta \text{u}^{\text{c}} \text{u}^{\text{b}} \text{p} \text{L} \text{r}^{\text{c}} \text{J}^{\text{c}} \text{mo}^{\text{b}} \text{y} \Delta^{\text{b}}$

Whale Tail – NIRB Project Certificate and NWB Type A Water Licence Amendments



TERRESTRIAL ENVIRONMENT ᓄᓐᑦᑲᓐᑲᓐ

➤ Inuit Concerns:

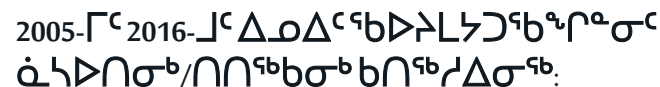
- Loss of vegetation and wildlife habitat
- Concerns on disturbance to wildlife habitat:
 - Wolf dens
 - Birds
 - Caribou and muskox
- Concerns with wildlife ingesting chemicals
- Concerns with caribou crossing the haul road safely
- Concerns with changes to caribou and impacts to harvest



➤ ᐃᓄᐃᑦ ᐃᓕᑲᓐᑲᓐᑲᓐ:

- ᐃᓕᑲᓐᑲᓐᑲᓐ ᐃᓕᑲᓐᑲᓐᑲᓐ ᐃᓕᑲᓐᑲᓐᑲᓐ
- ᐃᓕᑲᓐᑲᓐᑲᓐ ᐃᓕᑲᓐᑲᓐᑲᓐ ᐃᓕᑲᓐᑲᓐᑲᓐ
- ᐃᓕᑲᓐᑲᓐᑲᓐ ᐃᓕᑲᓐᑲᓐᑲᓐ
- ᐃᓕᑲᓐᑲᓐᑲᓐ ᐃᓕᑲᓐᑲᓐᑲᓐ
- ᐃᓕᑲᓐᑲᓐᑲᓐ ᐃᓕᑲᓐᑲᓐᑲᓐ
- ᐃᓕᑲᓐᑲᓐᑲᓐ ᐃᓕᑲᓐᑲᓐᑲᓐ
- ᐃᓕᑲᓐᑲᓐᑲᓐ ᐃᓕᑲᓐᑲᓐᑲᓐ

- Meadowbank Meetings since 2005 with:
 - Employees
 - Public meetings in Baker Lake and the Kivalliq with HTOs
- IQ workshops held in December 2014
- 2015 baseline studies were guided by TK information



- [illegible]



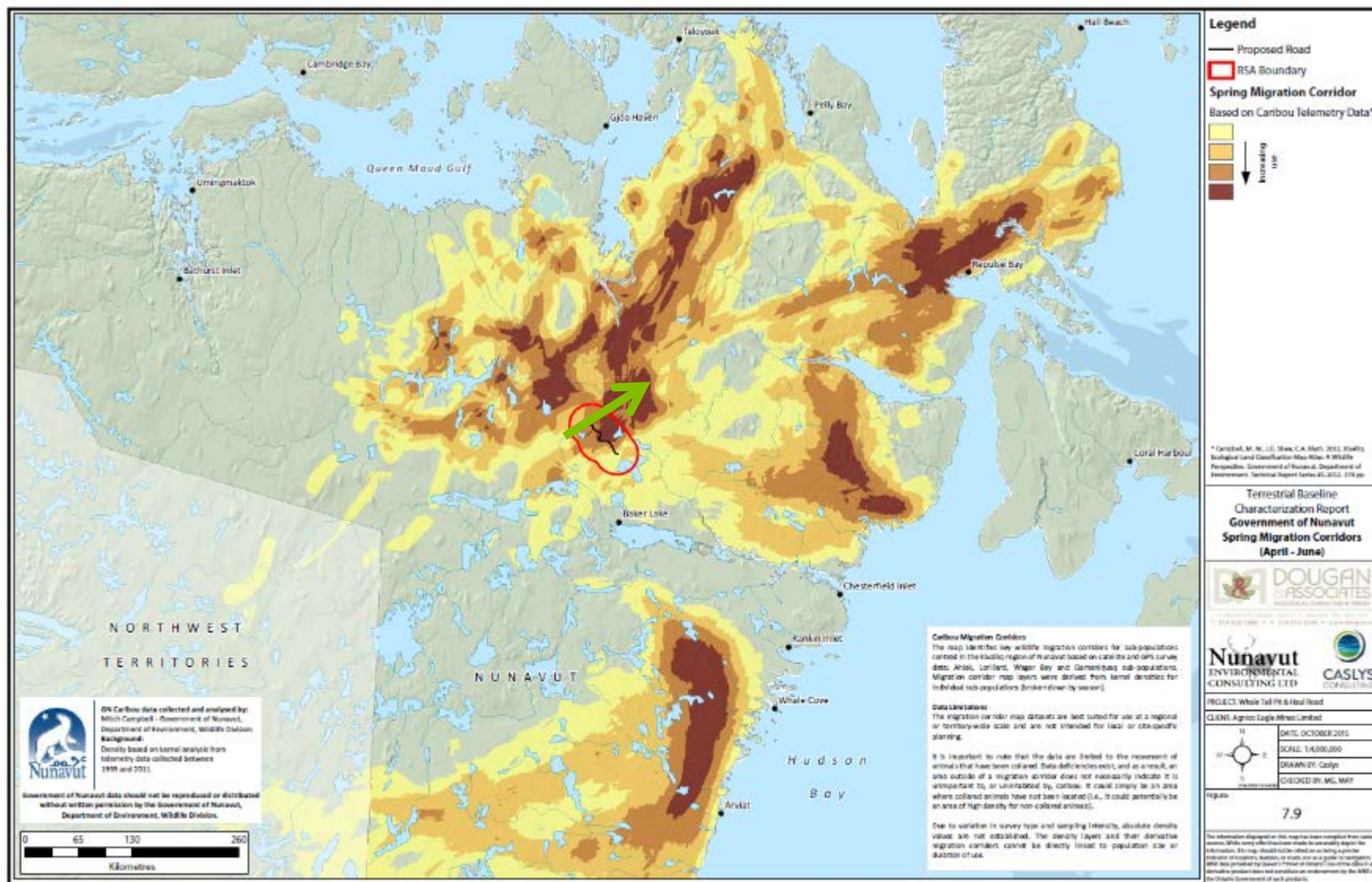
-
- ```
graph TD; A((TK/ IQ workshops and Associated Reports (ie. 2005-2013, December 2014 and 2015))) --> B((Baseline Data Collection (2014 - Western Science))); B --> C((Presentation, sharing and discussion of baseline data to Stakeholders (ie Elders, HTO, etc))); C --> D((Baseline Data Collection continued; scope, design and implementation is informed by IQ/TK)); D --> E((Review IQ/TK and Western Science with Stakeholders)); E --> A;
```



-



$\mu_{\Gamma \triangleright C \Delta^c} = \nu^b \nu \Delta^c$


$$\mathcal{C}^b \mathcal{C}^c \Delta \sigma^a \Gamma^c \Delta \geq \rho - \epsilon \sigma$$


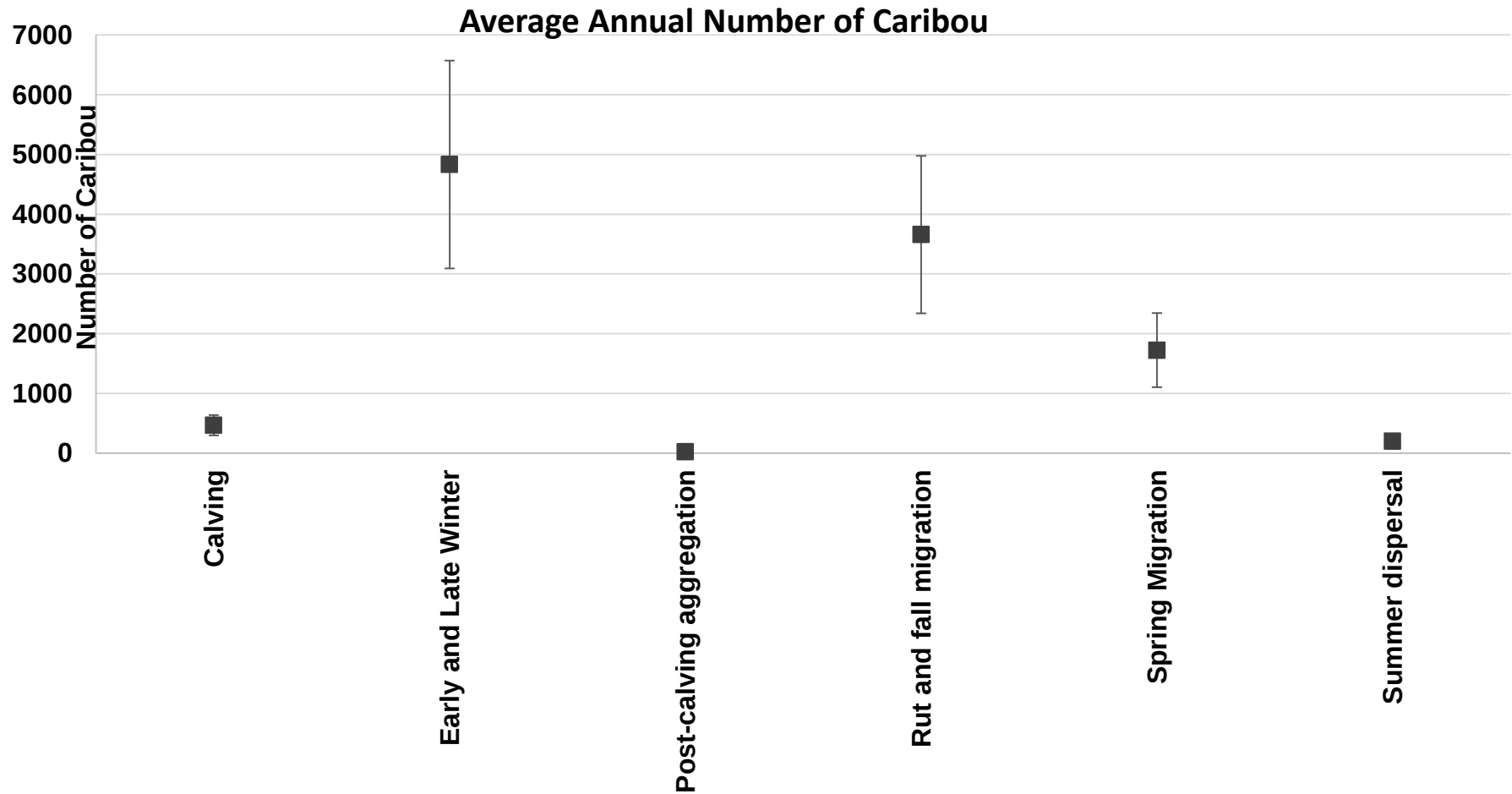
$\underline{m} \Gamma \triangleright C \Delta^c - \triangleright^b \triangleright \Delta^c$



$\Delta^c \rightarrow \Delta^c$



# TERRESTRIAL ENVIRONMENT – CARIBOU





0077CΔ<sup>c</sup>-77CΔ<sup>c</sup>

- በበጭታ ልዩነት ያለው 5-D, በበጭጭ 5-D-1:**  
የሚከተሉት የሥራ አፈጻጸም መጠን -  
**0.37% ርዕስ ስሜት ተመልክቶ**

**Table 5-D-1: Collared Caribou Residency**

| Herd                   | Season       | Residency Time in<br>Whale Tail RSA -<br>Days | Total Time -<br>Days | %           | Number of Unique<br>Collared Caribou<br>within RSA | Number of<br>Unique Collared<br>Caribou Total | Years that Caribou<br>are within the RSA | Years of Collar<br>Data       |
|------------------------|--------------|-----------------------------------------------|----------------------|-------------|----------------------------------------------------|-----------------------------------------------|------------------------------------------|-------------------------------|
|                        | Post-calving | 0.00                                          | 1,668.17             | 0.00        | 0                                                  | 18                                            | n/a                                      | 1999-2006,<br>2010-2012, 2015 |
|                        | Late Summer  | 16.77                                         | 2,043.00             | 0.82        | 1                                                  | 18                                            | 2015                                     | 1999-2006,<br>2010-2012, 2015 |
|                        | Fall         | 11.68                                         | 1,299.00             | 0.90        | 1                                                  | 18                                            | 2015                                     | 1999-2006,<br>2010-2012, 2015 |
|                        | Fall Rut     | 19.88                                         | 1,127.00             | 1.76        | 5                                                  | 18                                            | 2003, 2004                               | 1999-2006,<br>2010-2012, 2015 |
|                        | Early Winter | 60.72                                         | 2,369.17             | 2.56        | 6                                                  | 18                                            | 2000, 2001, 2003,<br>2004, 2011          | 1999-2006,<br>2010-2012, 2015 |
|                        | Late Winter  | 203.43                                        | 3,272.00             | 6.22        | 6                                                  | 16                                            | 2001, 2002, 2004,<br>2005                | 2000-2006,<br>2010-2013       |
| <i>Total</i>           |              | 329.23                                        | 15,501.17            | 2.12        | 12                                                 | 18                                            |                                          |                               |
| <b>Total All Herds</b> |              | <b>981.76</b>                                 | <b>264,995.08</b>    | <b>0.37</b> | <b>71</b>                                          | <b>359</b>                                    |                                          |                               |

RSA = regional study area; % = percent.



# TERRESTRIAL ᓄᓐᑦᑲᓐᑲᓐ

## Summary of FEIS Results

### ➤ Terrain, Permafrost and Soils

- Physical loss and permanent alteration of soil and terrain
- Change in soil quantity due to site clearing and potential erosion
- Permafrost degradation may occur

ᓐᓂᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ  
ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ

### ➤ ᓄᓐ, ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ

- ᓄᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ  
ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ  
ᓄᓐ
- ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ  
ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ  
ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ
- ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ  
ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ  
ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ ᓂᓐᑲᓐᑲᓐ



# TERRESTRIAL ᓄᓐᓂᓂᓐᓂᓐ

## Summary of FEIS Results

### ➤ Vegetation

- Change in vegetation quantity – decrease of approximately 2.9 % of the LSA
- Change in vegetation quality – dust within 100m of the haul road
- Reclamation efforts will focus on recolonization

ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ  
ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ

### ➤ ᓄᓐᓂᓂᓐᓂᓐ

- ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ 2.9%- ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ
- ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ 100 ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ
- ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ ᓄᓐᓂᓂᓐᓂᓐ



[illegible]







**ፌዴራል ሪፐብሊክ ኢትዮጵያ**





- As per Meadowbank NIRB Project Certificate conditions we meet with HTO annually to discuss the results of the wildlife monitoring
  - Overall, good feedback over the years from the HTO, however few comments from NIRB interveners regarding TEMP methods and caribou protection since 2008
  - As part of the Whale Tail Pit review process and to fulfill our NIRB IR response we have been collaborating with the HTO, GN, and KivIA by hosting two workshops on:
    - November 18<sup>th</sup>, 2016 (Winnipeg)
    - Feb 22 and 23<sup>rd</sup>, 2016 (Ottawa)
  - Committed to protecting caribou throughout our operations, with heightened concern during fall and spring migration



- Tiered monitoring and mitigation approach
- Level 3 (Red) – heightened monitoring and alerts if observations of > 50 caribou are 1.5 km from the haul road or mining area.

### Mitigation:

- Site wide notifications
- Vehicles on haul road decrease to 30 km/hr
- Convoys with wildlife observers
- Cease specific mine activities (e.g. blasting or hauling along the road)
- Cease all activities (e.g. stop mining in pit, close the road and stop hauling to the mill)

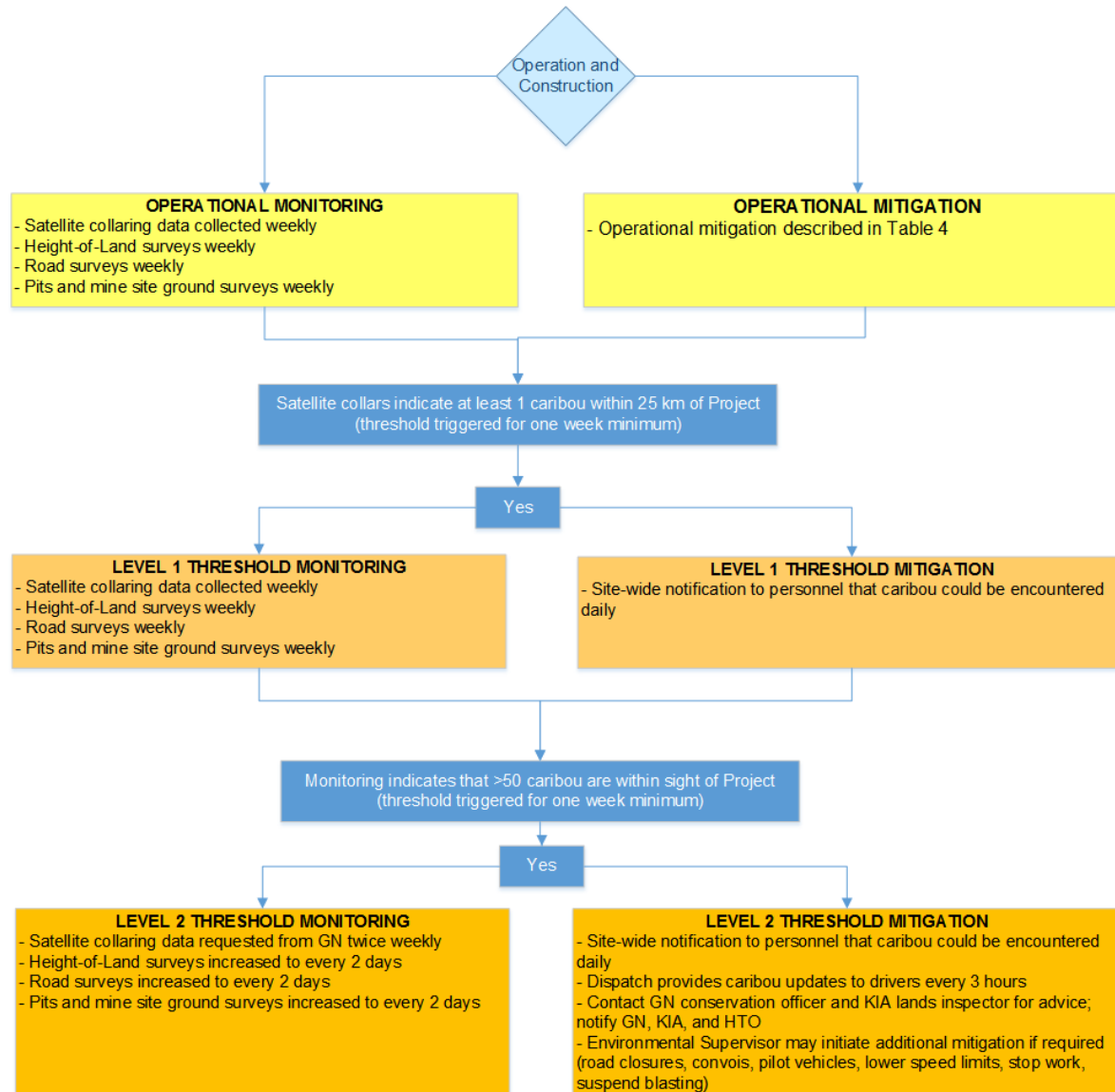
- ንጥረ ነገረ ሕይወት ማከማቻ ማስጠበቅ ማስጠበቅ ማስጠበቅ ማስጠበቅ
- ደረጃ 3 (Red) - ንጥረ ነገረ ሕይወት ማከማቻ ማስጠበቅ ማስጠበቅ ማስጠበቅ ማስጠበቅ

### ጥራት ማስጠበቅ ማስጠበቅ ማስጠበቅ ማስጠበቅ

- ለመጠቀም ማስጠበቅ ማስጠበቅ ማስጠበቅ ማስጠበቅ
- መሬት ህይወት ማከማቻ ማስጠበቅ ማስጠበቅ ማስጠበቅ ማስጠበቅ
- ለጥራት ማስጠበቅ ማስጠበቅ ማስጠበቅ ማስጠበቅ ማስጠበቅ
- ለጥራት ማስጠበቅ ማስጠበቅ ማስጠበቅ ማስጠበቅ ማስጠበቅ ማስጠበቅ
- ለጥራት ማስጠበቅ ማስጠበቅ ማስጠበቅ ማስጠበቅ ማስጠበቅ ማስጠበቅ

ፌዴራል ልማት ሚኒስቴር





ፌዴራል ልማት ሚኒስቴር



| Potential Effect               | Impact Prediction | Quantitative Monitoring Variable | Thresholds                                                                                                | Monitoring Activity                  | Frequency                                                                                                                                                                    |
|--------------------------------|-------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sensory Disturbance to Caribou | N/A               | Caribou presence                 | One collared caribou within 25 km of the Project<br><br>or<br><br>>50 caribou within sight of the Project | Pits and mine site ground surveys    | Weekly increased up to every two days as needed (see <b>Chart 2</b> )                                                                                                        |
|                                |                   |                                  |                                                                                                           | Road surveys                         | January to April and July to August, once per week<br><br>May to June and September to December, twice per week. Increased up to every two as needed (see <b>Chart 2</b> )   |
|                                |                   |                                  |                                                                                                           | Caribou satellite-monitoring program | Data provided to Agnico Eagle from GN weekly, requested up to twice per week as needed (see <b>Chart 2</b> )                                                                 |
|                                |                   |                                  |                                                                                                           | Incidence reports                    | As occurring                                                                                                                                                                 |
|                                |                   |                                  |                                                                                                           | Height-of-land surveys               | January to April and July to August, once per week<br><br>May to June and September to December, every two days<br><br>Increased up to daily as needed (see <b>Chart 2</b> ) |

ፌዴራል ልማት ሚኒስቴር

AGNICO EAGLE | WHALE TAIL PIT REGULATORY PRESENTATION |



ፌዴሬሽን ልግ ለግብርና ሚኒስቴር





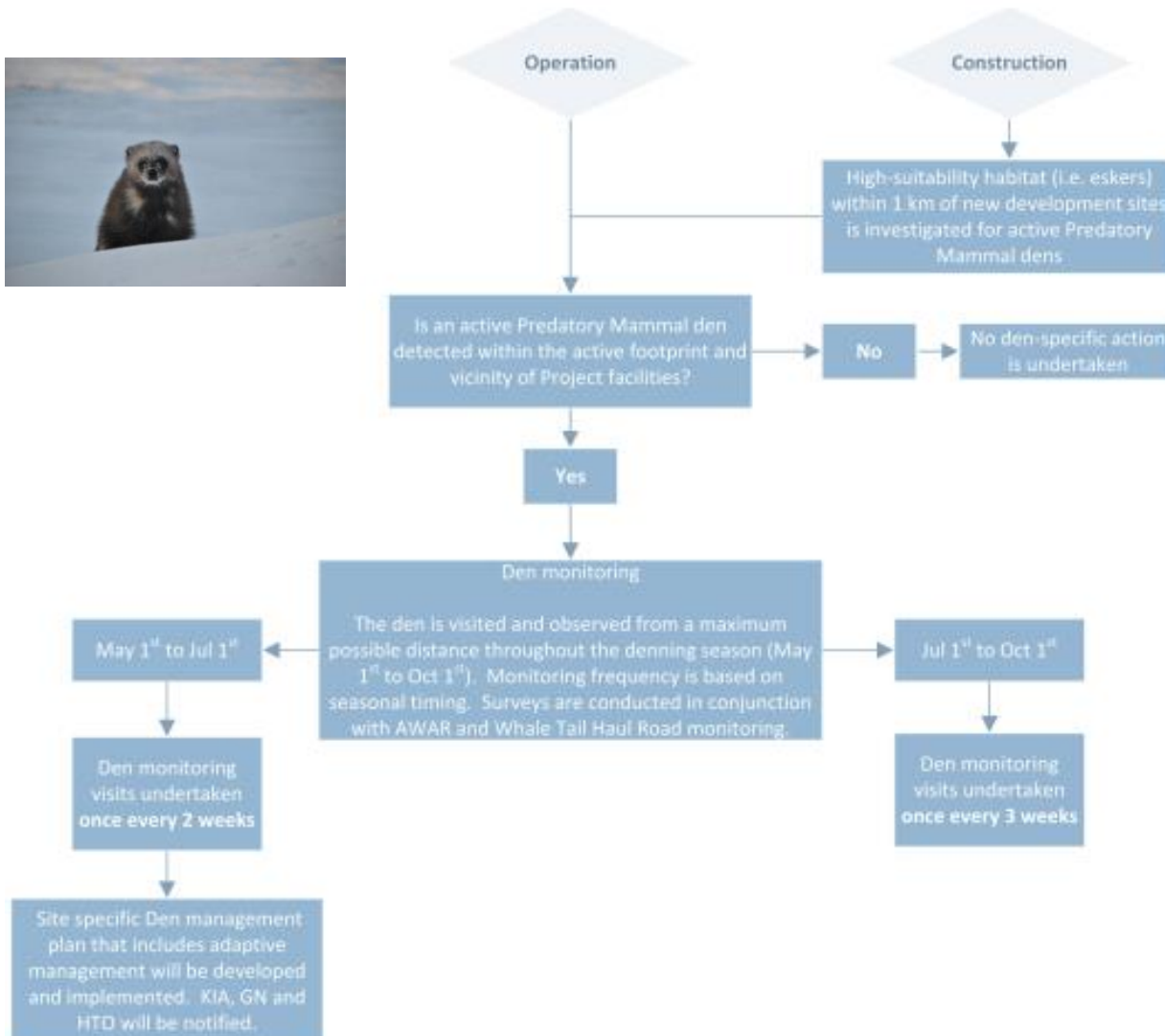
Through Workshops and TC with GN, KivIA, HTO Agnico Eagle have committed to:

- Update the Terrestrial Ecosystem Management Plan (TEMP) prior to the final hearings
  - Volume 8 – Appendix 8- E.7 – Terrestrial Ecosystem Management Plan
- Work with the GN to Conduct a Zone of Influence (ZOI) analysis of current AWAR and use this to inform ZOI for the proposed Haul Road
  - To continue during operations
- Terrestrial Advisory group that meets once/year, at a minimum composed of:
  - HTO, GN, KivIA members
- Annual Audit of the TEMP

[illegible]

- **ፈረንሳይኛ ጋራ ወጪ**  
ለፖሎንዲያውያን የገንዘብ ጋራ ለፈረንሳይኛ  
ፈረንሳይ (TEMP) የሚሰጥ ሲሆን  
ጋራው ለፈረንሳይ ነው።
  - የፍራንክ 8 - በገንዘብ ለፈረንሳይ 8-E.7 - ወጪ  
ለፖሎንዲያውያን የገንዘብ ጋራ ለፈረንሳይ ፈረንሳይ
- **ለፍራንክ ጋራ ወጪ ማረጋገጫ**  
ለፍራንክ ጋራ ወጪ ለፈረንሳይ (ZOI)  
የፍራንክ ጋራ ወጪ ለፈረንሳይ ለፈረንሳይ  
ፈረንሳይ ጋራ ወጪ ለፈረንሳይ ZOI-ፍራንክ ጋራ ወጪ  
ፈረንሳይ ለፈረንሳይ  
  - ፍራንክ ጋራ ወጪ ለፈረንሳይ ለፈረንሳይ
- **ወጪ ጋራ ወጪ ለፈረንሳይ**  
በፍራንክ ጋራ ወጪ ለፈረንሳይ ለፈረንሳይ  
ፈረንሳይ ጋራ ወጪ ለፈረንሳይ  
  - ፈረንሳይ ለፈረንሳይ ወጪ ለፈረንሳይ  
ፈረንሳይ ለፈረንሳይ
- **ፈረንሳይ ለፈረንሳይ**  
ፈረንሳይ ለፈረንሳይ TEMP

ፌዴራል ልማት ሚኒስቴር

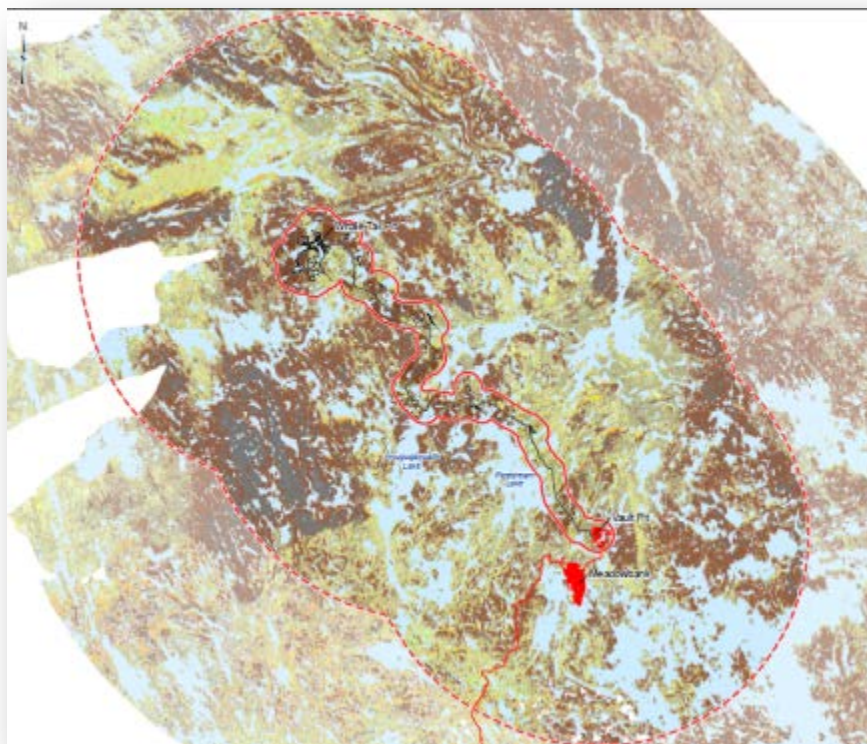


**AGNICO EAGLE**

- [illegible]

➤ We will continue to evaluate habitat loss due to mining through Ecological Land Classification.

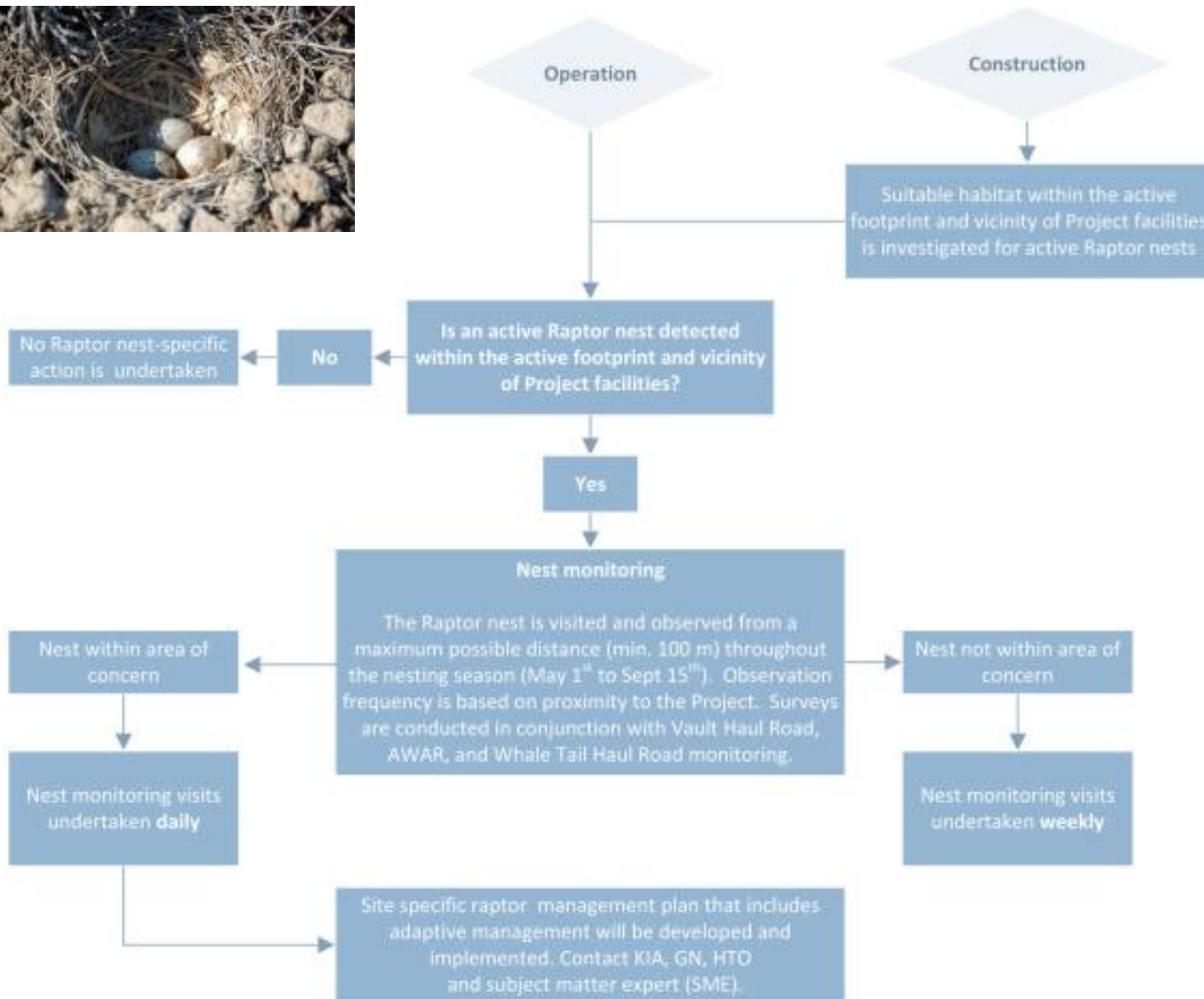
፡የገንዘብ ልማት ማረጋገጫ ለማድረግ ለሚገቡ ሰነዶች  
 ለማረጋገጥ ለሚገቡ ሰነዶች ለማረጋገጥ ለሚገቡ ሰነዶች  
 ለማረጋገጥ ለሚገቡ ሰነዶች ለማረጋገጥ ለሚገቡ ሰነዶች  
 ለማረጋገጥ ለሚገቡ ሰነዶች ለማረጋገጥ ለሚገቡ ሰነዶች





# TERRESTRIAL ENVIRONMENT MONITORING - BIRDS

መሬት ላይ ያለውን አካባቢ ለመከታተል የሚያስፈልጉትን ጥናቶች ማድረግ



## Nesting Protection

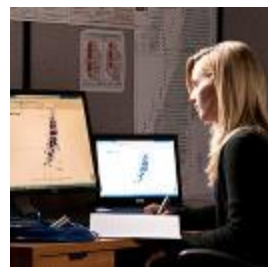
- Example- operations have created additional habitat or nesting sites.
- Since operations began, we have been successful in protecting raptor nest sites
- Continue to work with Arctic Raptor Group/ UofA

- ስኬታዊ ሲሆን ለጥቅም ላይ የዋለውን አካባቢ ለመጠበቅ እና ለመቆጣጠር እንዲያስችል እንረከብ።
- ርዕሰ ሰራተኛችን ለጥቅም ላይ የዋለውን አካባቢ ለመጠበቅ እና ለመቆጣጠር እንዲያስችል እንረከብ።
- ለጥቅም ላይ የዋለውን አካባቢ ለመጠበቅ እና ለመቆጣጠር እንዲያስችል እንረከብ።





**AGNICO EAGLE**



**Trading Symbol:**  
AEM on TSX & NYSE

**Investor Relations:**  
416-847-8665  
[info@agnicoeagle.com](mailto:info@agnicoeagle.com)

**[agnicoeagle.com](http://agnicoeagle.com)**

