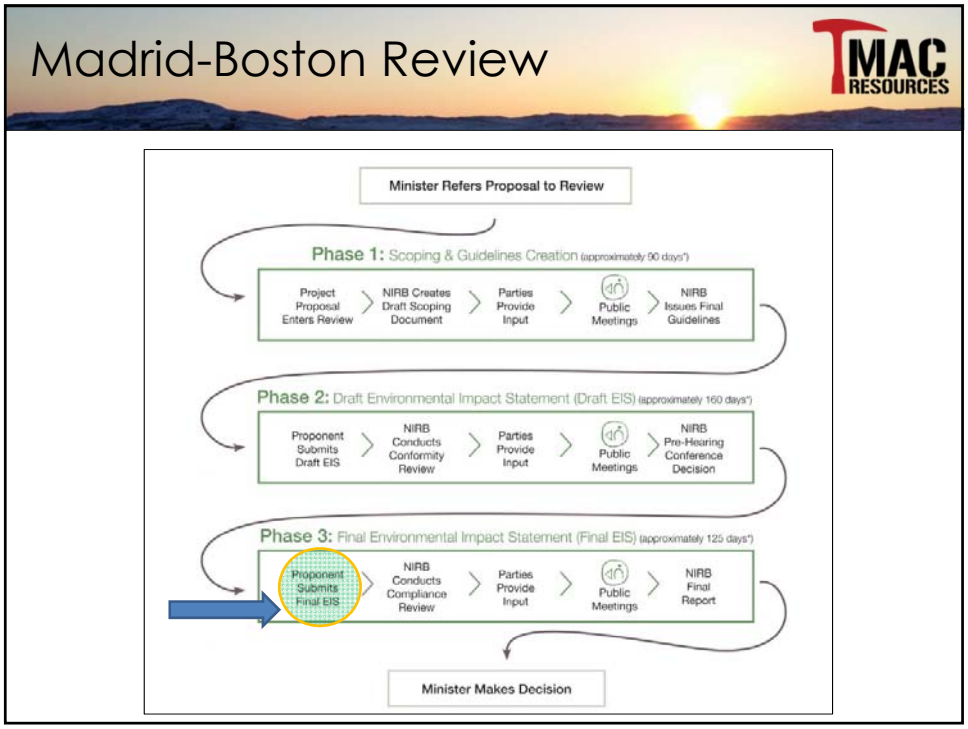
Appendix V2-3F

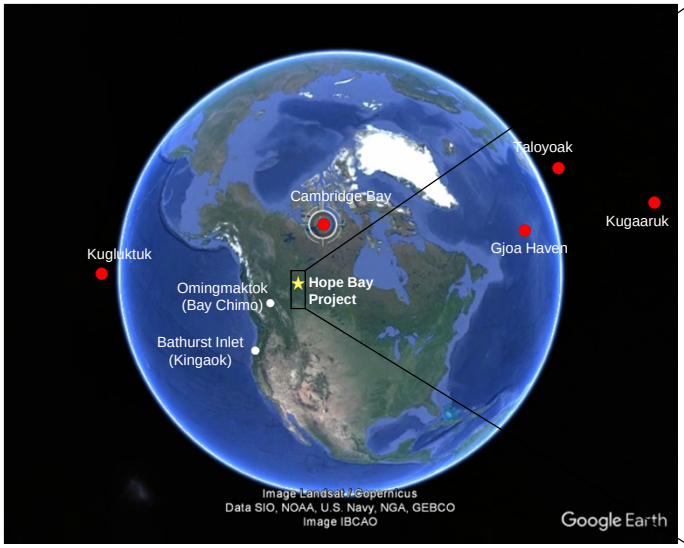
TMAC Presentation Given at the October 2017 Community Meetings

TMAC RESOURCES


MADRID – BOSTON
PROPOSAL
PHASE 2 OF THE HOPE BAY PROJECT
TMAC RESOURCES
Project Overview and Assessment
October 2017

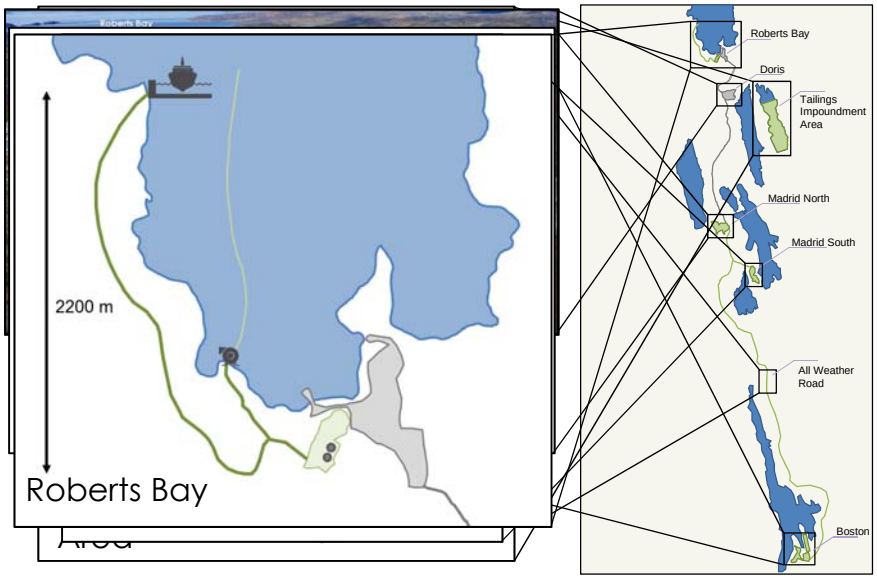

Madrid-Boston Review
TMAC RESOURCES
Minister Refers Proposal to Review
Phase 1: Scoping & Guidelines Creation (approximately 90 days*)
Project Proposal Enters Review
NIRB Creates Draft Scoping Document
Parties Provide Input
Public Meetings
NIRB Issues Final Guidelines
Phase 2: Draft Environmental Impact Statement (Draft EIS) (approximately 160 days*)
Proponent Submits Draft EIS
NIRB Conducts Conformity Review
Parties Provide Input
Public Meetings
NIRB Pre-Hearing Conference Decision
Phase 3: Final Environmental Impact Statement (Final EIS) (approximately 125 days*)
Proponent Submits Final EIS
NIRB Conducts Compliance Review
Parties Provide Input
Public Meetings
NIRB Final Report
Minister Makes Decision

Project Location

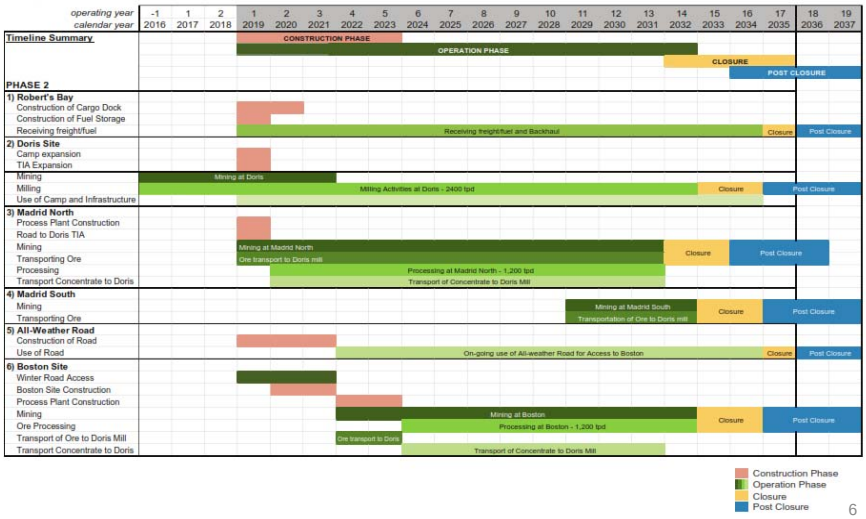


Approved Doris Project (No.003 and 2AM-DOH1323)

Hope Bay Project Layout



Development Schedule



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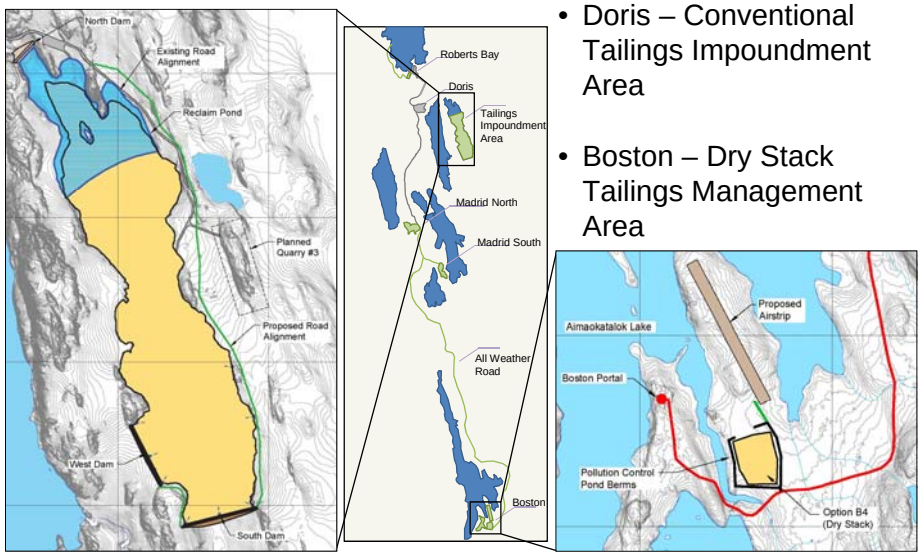
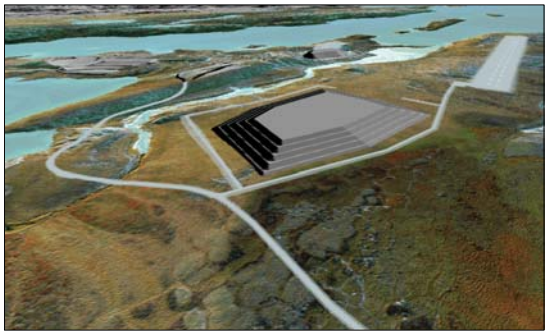
Overview of Tailings Management



- Doris – Conventional Tailings Impoundment Area
- Boston – Dry Stack Tailings Management Area

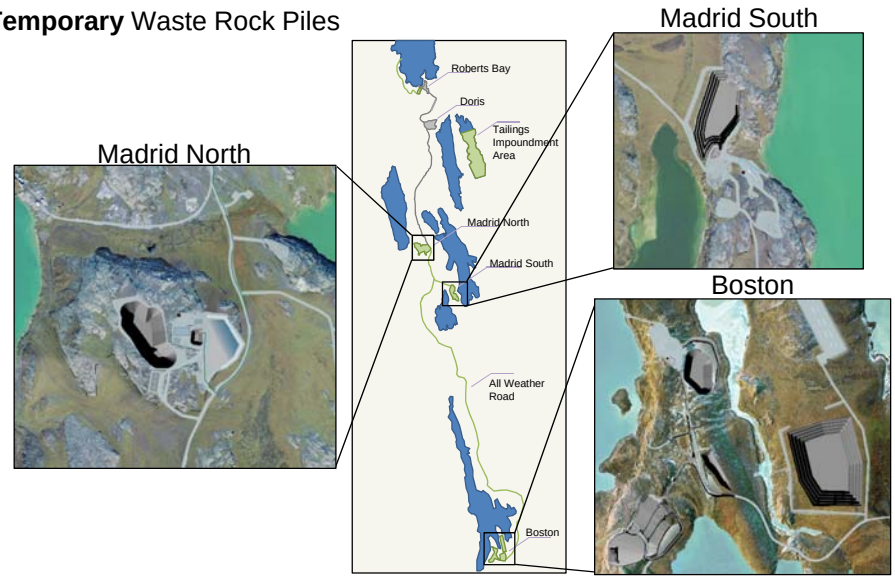
Tailings Management Area - Boston

- Filtered tailings
- Trucks, Dozers, Compactors
- Stackable and compactable
- Similar to:
  - Raglan
  - Fort Knox
  - Pogo



Summary of Waste Rock Management

Temporary Waste Rock Piles



Project Highlights

Madrid and Boston Highlights	
Mining	• Mining with waste rock stored above ground temporarily and then put back into the underground mines. Some surface excavation to remove ore at and near surface.
Processing	• Approximately 5600 tonnes of ore processed per day
Gold Production	• Gold production at Doris and Boston. Concentrates produced at Madrid North
Transportation	• Sealift arrives at Roberts Bay and utilize cargo dock and jetty • Gold bars flown out to market from Doris and Boston • Road connecting Madrid and Boston to Doris and Roberts Bay
Employment	• Fly in-fly out operation from Edmonton and Kitikmeot • 870 workers during peak operations (for approximately 14 years)
Economic Benefit	• Royalties, mineral taxes and other payments of approximately $500 million over the life of the Hope Bay Project for Canada, Nunavut, KIA and NTI (excluding Doris)

Impact Assessment

- **Comprehensive methods**
  - Assessments covers environment, human, economic, and cultural environments.
- **Robust data**
  - Site-specific baseline since 1993
  - Extensive Traditional Knowledge and Consultation (NTKP Report)
- **Precautionary approach**
  - Assessment of risk using high estimates of releases, traditional and scientific knowledge, monitoring and adaptive management
- **Effects prediction**
  - Evidence based
  - Certainty and confidence in predictions
- **Monitoring**
  - Follow up and adaptive management
  - Monitoring during project activities will be used to validate predictions and mitigate potential effects

Valued Ecological Components

Valued Ecological Components

- Caribou
- Muskox
- Grizzly Bear
- Furbearers
- Raptors
- Water birds
- Upland Breeding Birds
- Vegetation and Special Landscape Features

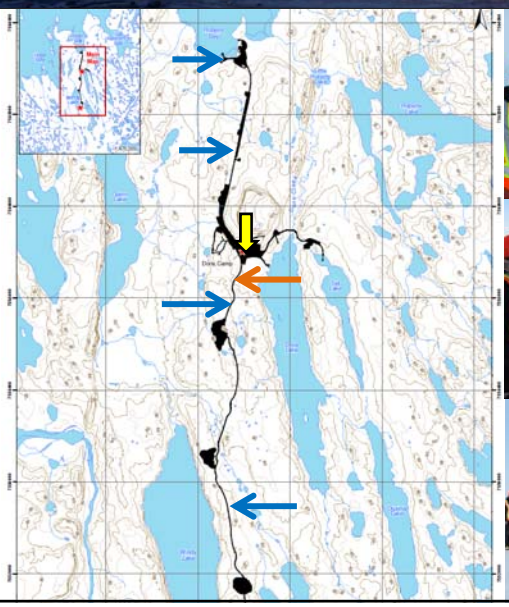
Subjects of Note:

- Landforms and Soils

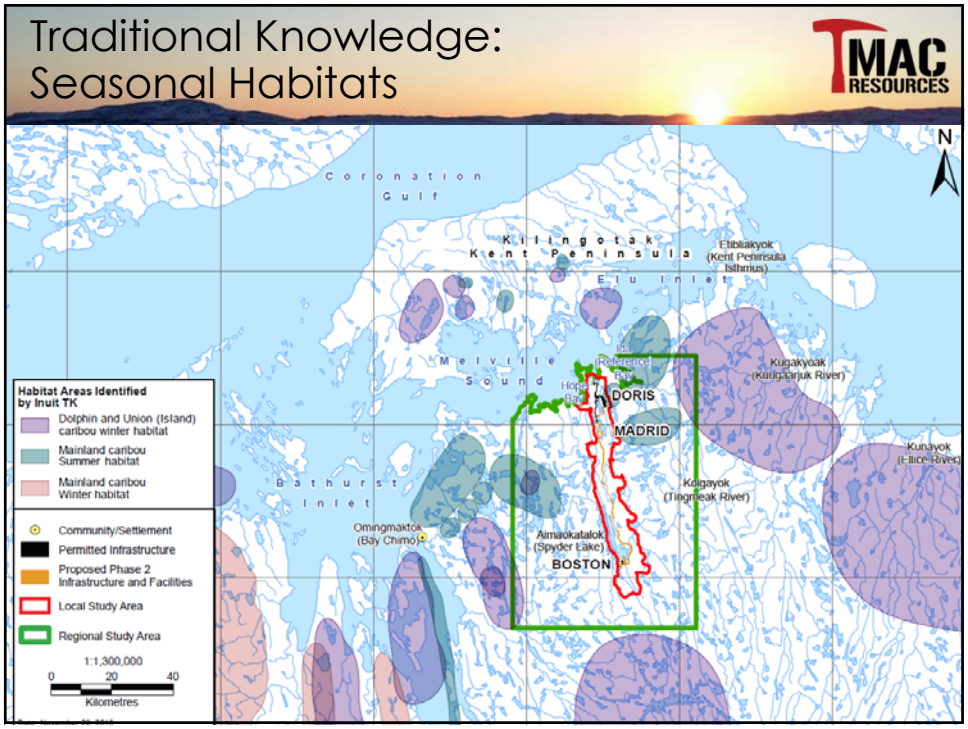
Local Knowledge Workshops

- **Local knowledge holder perspective on Project risk to wildlife**

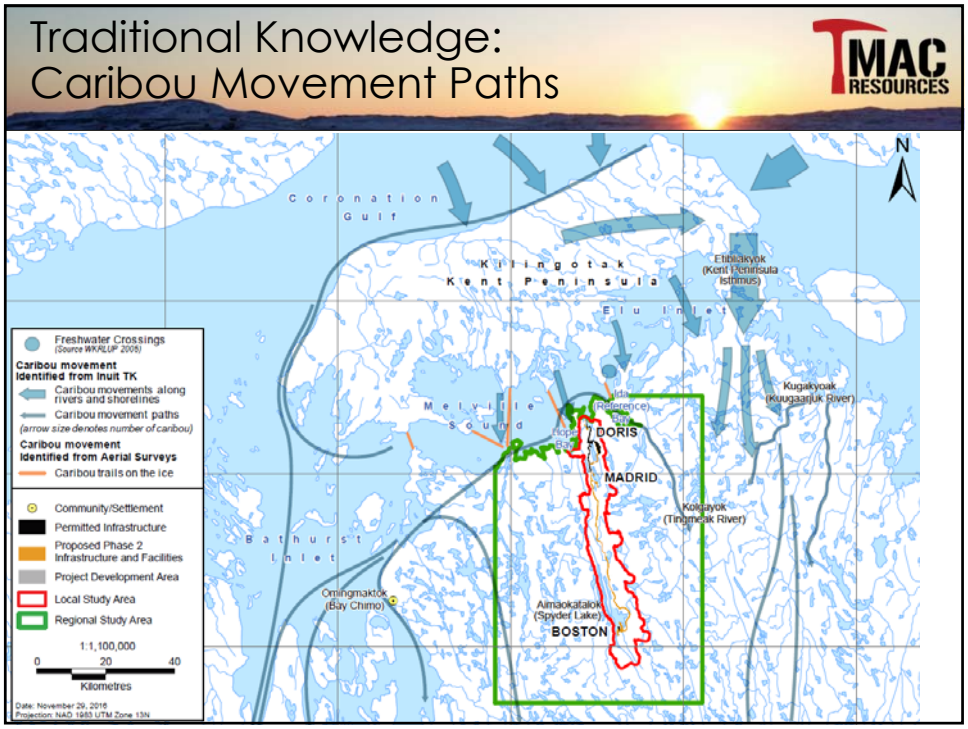
Noise and Vibration – Summary of Residual Effects



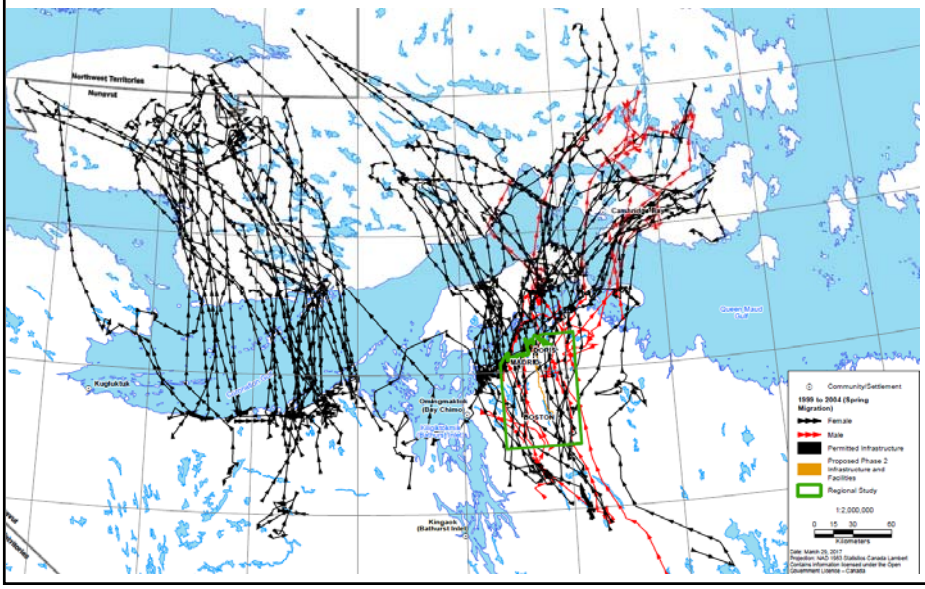
Traditional Knowledge: Seasonal Habitats



Traditional Knowledge: Caribou Movement Paths

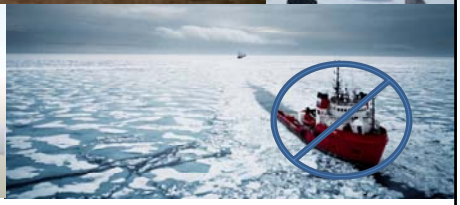


Government: Spring Migration Movement



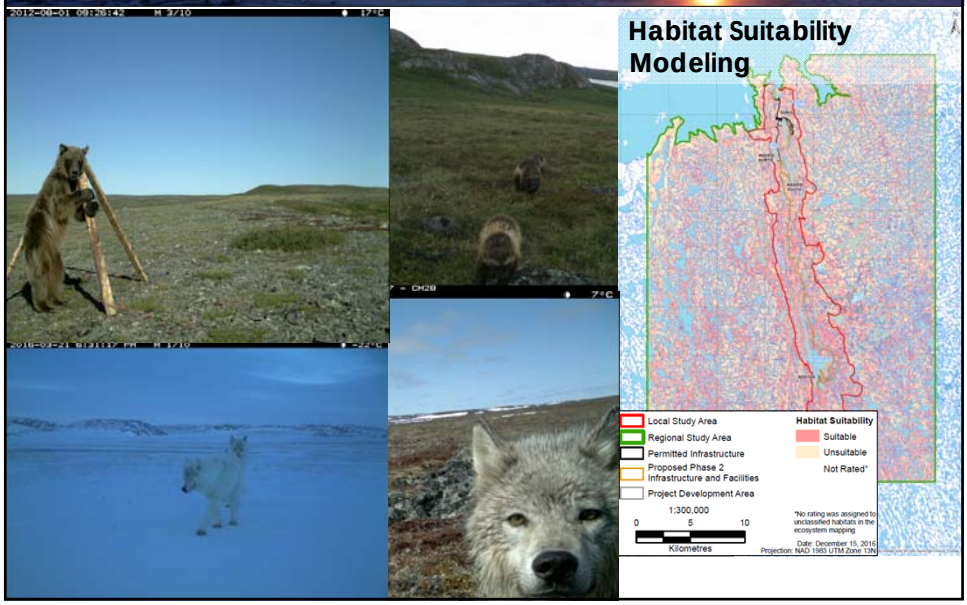
Protection from Disruption of Movement

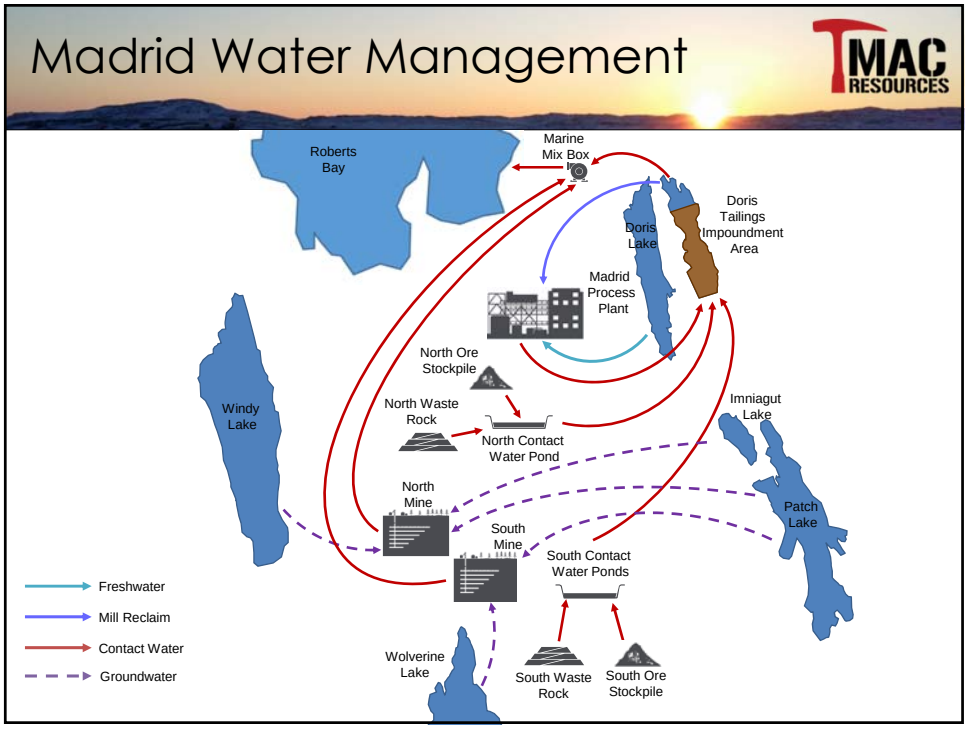
- **Road design**
- **Caribou crossings**
- **Speed limits**
- **No ice breaking**

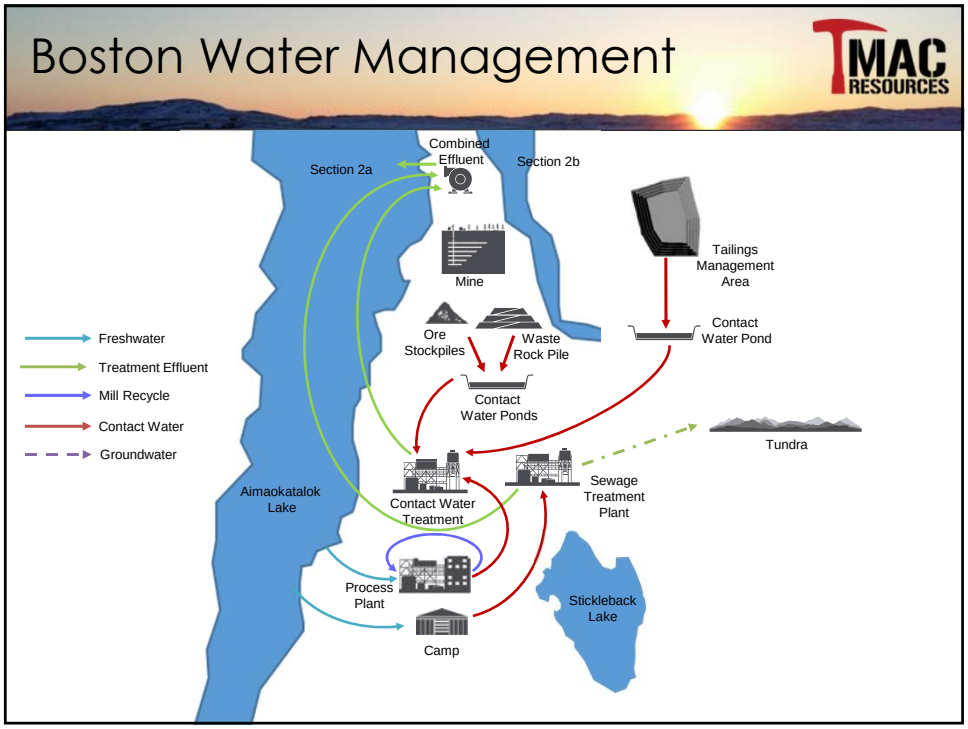


Caribou Project Interactions

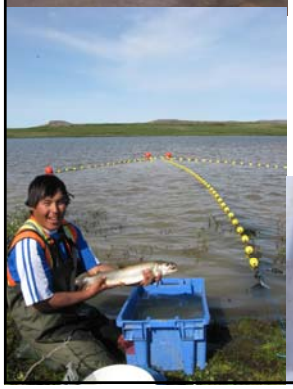
Furbearers




Madrid Water Management
TMAC RESOURCES
Roberts Bay
Marine Mix Box
Doris Tailings Impoundment Area
Doris Lake
Madrid Process Plant
North Ore Stockpile
North Waste Rock
North Contact Water Pond
Windy Lake
Imniagut Lake
North Mine
South Mine
Patch Lake
South Contact Water Ponds
Wolverine Lake
South Waste Rock
South Ore Stockpile
Freshwater
Mill Reclaim
Contact Water
Groundwater


Boston Water Management
TMAC RESOURCES
Combined Effluent
Section 2a
Section 2b
Mine
Tailings Management Area
Ore Stockpiles
Waste Rock Pile
Contact Water Pond
Contact Water Ponds
Tundra
Freshwater
Treatment Effluent
Mill Recycle
Contact Water
Groundwater
Aimaokatalok Lake
Contact Water Treatment
Sewage Treatment Plant
Process Plant
Stickleback Lake
Camp

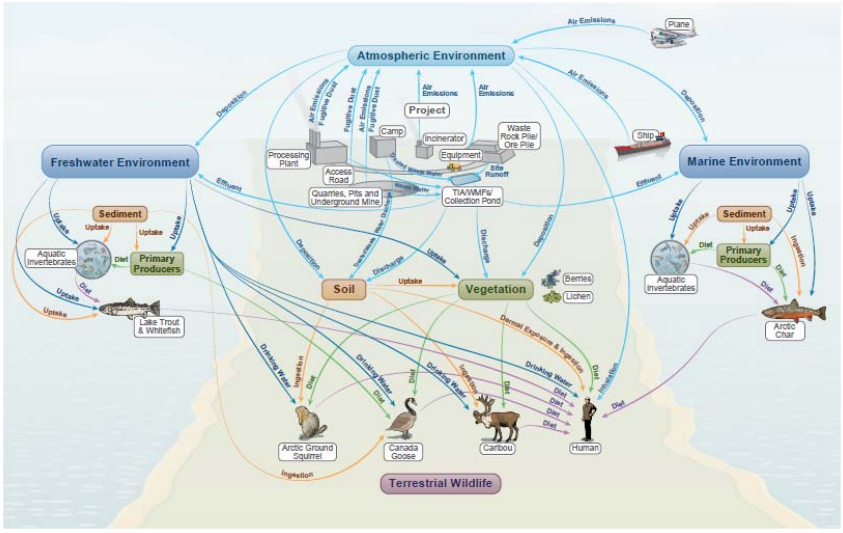
Fish Assessment



- **Potential impacts assessed:**
  - **Fish habitat loss or alteration**
  - **Fish mortality or changes to population abundance**
    - Project infrastructure and development
    - Water withdrawal and use
    - Changes in water and sediment quality

Marine Environment – Roberts Bay Infrastructure and Activities

Human Health Model



Socio-economic Study Area

Archaeology Assessment

- **The assessment considered potential archaeological impacts**
  - Potential loss of recorded archeological sites
  - Potential loss of unrecorded archaeological sites
  - Impact on cultural information content of site

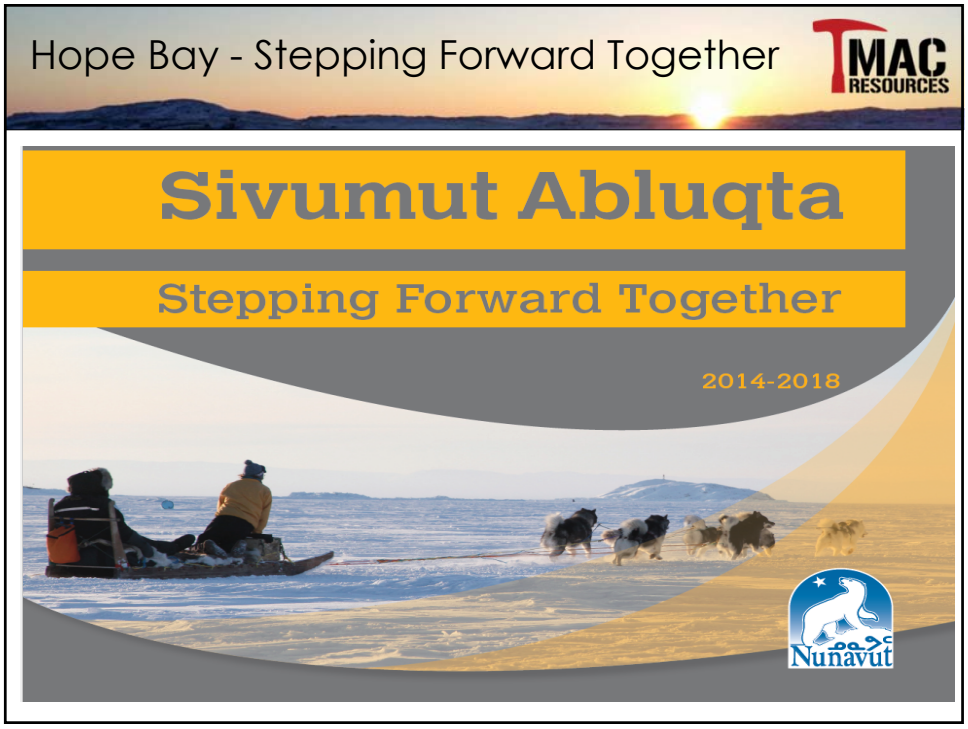
- **Key mitigation and management includes:**
  - Screening of proposed activities prior to initiation
  - Avoidance of archaeological sites through Project Design
  - Large buffer zones and barriers, where required
  - Heritage Resource Protection Plan
  - Systematic data recovery at sites that cannot be avoided

Summary of Results for Socio-Economics

- **Socio-economic benefits identified:**
  - Economic Development
  - Business Opportunities
  - Employment
  - Education and Training
  - Community Health and Well-being

- **Potential residual impacts identified:**
  - Changes in employment opportunities and income (Reclamation and Closure)
  - Changes in competition for local labour (Construction and Operation)
  - Changes to family stability (Construction and Operation)
  - Changes to family spending (Construction and Operation)
  - All socio-economic residual impacts assessed as **not significant**

The Hope Bay Project will continue to provide significant benefits to the residents and businesses of the Kitikmeot Region.


Hope Bay - Stepping Forward Together
TMAC RESOURCES
Sivumut Abluqta
Stepping Forward Together
2014-2018
Nunavut


Thank you. Questions?
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