



# Mary River Project

*Early Revenue Phase*

NPC Oral Hearings January 2014



# Overview of Presentation

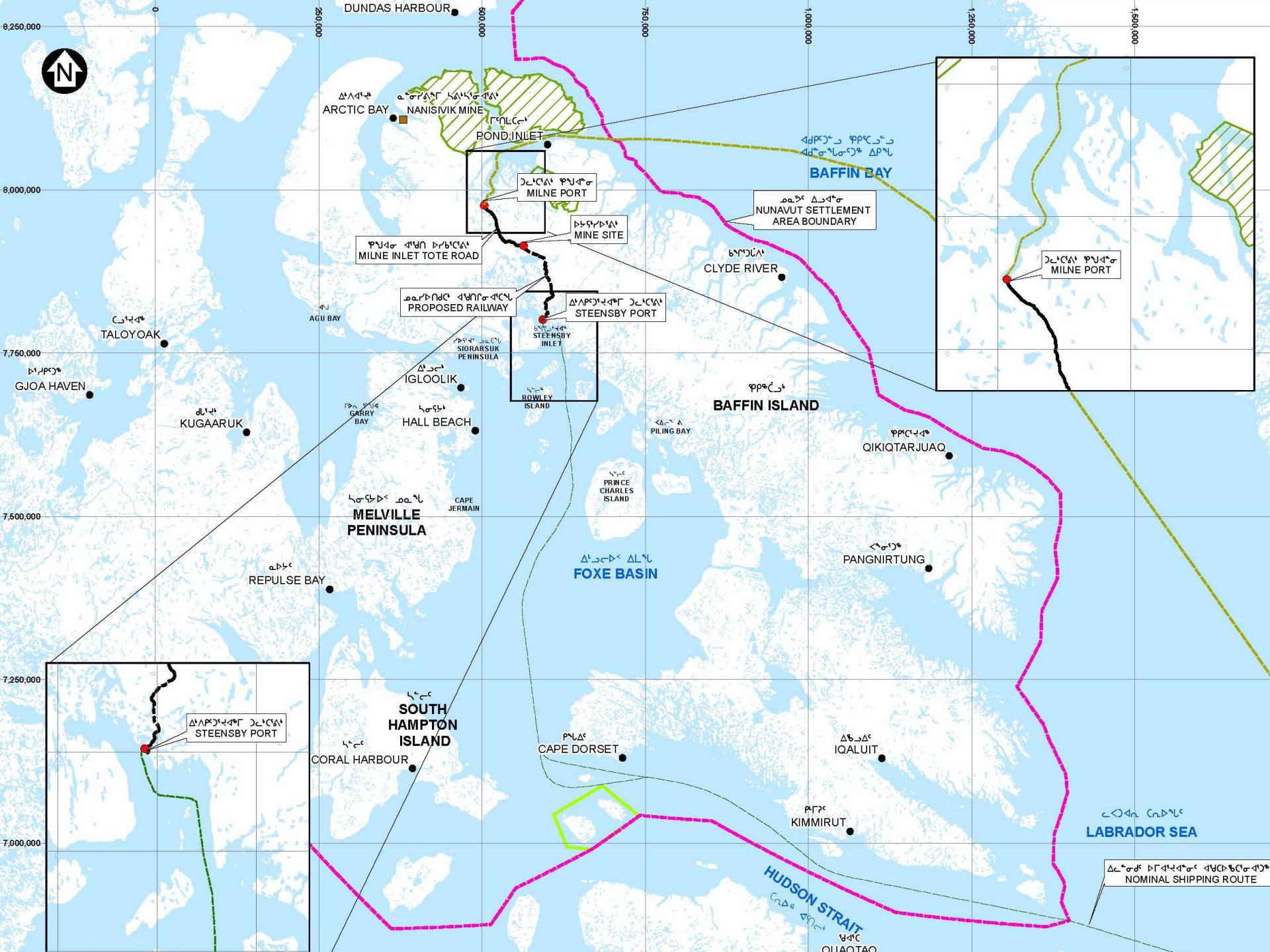
- Introduction to Early Revenue Phase (ERP)
- ERP NIRB/NPC process to date
  - Key milestones
  - NIRB and NPC mandates
- North Baffin Regional Land Use Plan (NBRLUP) Appendix J and relevant ERP considerations
- NBLRUP Appendix K and relevant ERP considerations
- Conclusion





Early Revenue Phase







# Components of the Early Revenue Phase

In addition to the Approved Project:

- a. Mine Site:
  - i. Truck Loading of ore,
  - ii. Truck fleet maintenance;
- b. Tote Road:
  - i. Expected 76 ore trucks (152 transits) per day;
  - ii. Year round trucking
- c. Milne Port:
  - i. Ore stockpiling, ship loading (3.5 Mt/a);
- d. Shipping:
  - I. Expected 54 ore shipments (108 transits) per year
  - II. Open water shipping



# Purpose of the Early Revenue Phase

- The ERP enables the overall Mary River Project to advance in a phased approach
- The infrastructure developed for the ERP will serve the construction of the Approved Railway Project
- It is expected that the road haulage operation (ERP) would continue with the operation of the Approved Project



# NIRB and NPC Joint Review – Key Steps

- **June 2013** - Project description submitted to NIRB and NPC
- **August 2013** - NPC issued determination that ERP project proposal conditionally conforms to the NBRLUP but will require joint review under section 3.5.12
- **October 2013** – Technical comments relating to NIRB and NPC decisions were submitted by interveners
- **November 2013** – Baffinland filed responses to technical comments with NIRB and also filed a submission with NPC



# NIRB and NPC Joint Review – Key Steps (cont.)

- **November 26-28, 2013** - NIRB/NPC Technical Meetings in Iqaluit
- **January 7 - 10, 2014** – NPC Oral Hearings in Clyde River, Grise Fiord, Resolute, Arctic Bay, Pond Inlet
- **January 27-31, 2014** – NIRB Final Hearings in Pond Inlet



# Nunavut Impact Review Board Mandate

- **Nunavut Impact Review Board** is assessing potential for environmental and socio-economic impacts relating to the Early Revenue Phase (including social and economic related to communities)
  - At completion of process will decide whether to amend the Project Certificate



# Nunavut Planning Commission Mandate

- **Nunavut Planning Commission** (jointly with NIRB) is determining whether the proposed transportation corridors meet the guidelines set out in Appendices J and K of the North Baffin Regional Land Use Plan (NBRLUP)
  - At completion of process will confirm whether use of transportation corridors conforms to NBRLUP and whether to recommend an amendment to the Minister
  - NPC will consider information gathered during the NPC/NIRB joint process as well as information from these oral hearings in making its decision and recommendation



Appendix J - Marine and Terrestrial Transportation/ Communications Corridor Alternative Route Assessment





# Appendix J

- Appendix J of the NBRLUP is, “Marine and Terrestrial Transportation/ Communications Corridor Alternative Route Assessment”
- It is NPC’s information requirements for applicants wishing to develop a transportation and/or communications corridor in the North Baffin region



# Appendix J

1. A description of the proposed corridor, including its use, its general routing, the possible environmental and social impacts, and any seasonal considerations that may be appropriate.
2. A comparison of the proposed route with alternative routes in terms of environmental and social factors as well as technical and cost considerations.

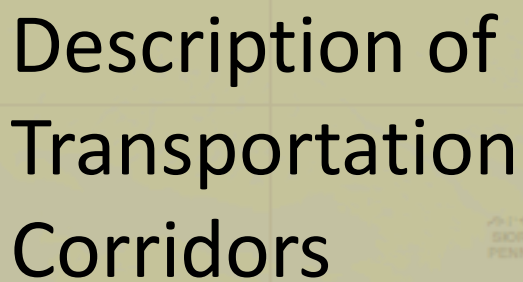


# Appendix J (cont.)

3. An assessment of the suitability of the corridor for the inclusion of other possible communication and transportation initiatives (roads, transmission lines, pipelines etc.). This assessment should include:

- The environmental, social and terrain engineering consequences, and the cumulative impacts of the project, and
- The environmental and social impact of the project on nearby settlements or on nearby existing and proposed transportation systems.
- Baffinland's submission to NPC of Nov. 8, 2013 is a roadmap to show how the ERP Addendum submitted to NIRB and NPC in June 2013 meets the information requirements of Appendix J







# Preferred Transportation Route - Land

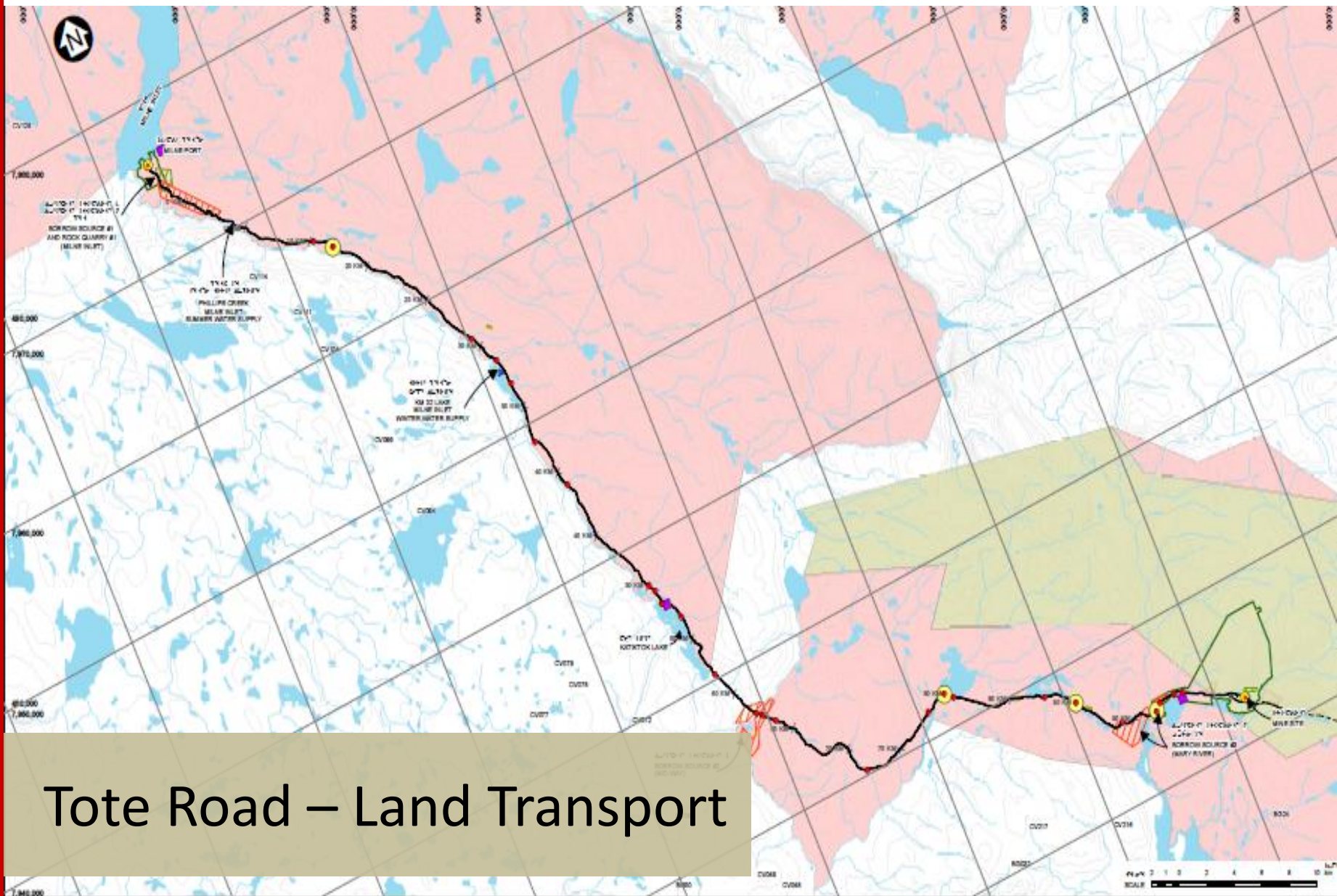
- Use 100 kilometer Tote Road to move ore from Mine to Milne Port
  - Road has existed since the 1960's
  - Included in Nunavut Land Claims Agreement as a public road
  - Best alternative from environmental, social and cost perspective
- Alternatives to tote road were assessed, but using the existing road is best alternative:
  - Minimizes environmental footprint and distance to port
  - Minimizes disturbance to landforms and scenic value
  - Minimizes disturbance to archeological resources
  - Minimizes social effects
  - Minimizes cost to building a second road or railway



# Preferred Transportation Route - Sea

- Use shipping corridor to move ore from Port to Europe
  - Used by Baffinland since 2004 for resupply and ore shipments
  - Deep water suitable for shipping
  - Most direct route minimizing environmental interactions and cost
  - 15 kilometers from Pond Inlet at closest point





## Tote Road – Land Transport



# Tote Road – Existing Land Transportation Corridor

- Approved Project includes improvements to existing road bed, realignment, grades, and water crossings
- Ore haulage using conventional trucks with two trailers
- Daily Traffic Volume Assessed
  - Average of 76 ore trucks (approx. 152 transits)
  - Other traffic 30 trucks
- Existing and approved Mitigation and Management Plans adapted to ERP activities



# Tote Road – Ore Trucks

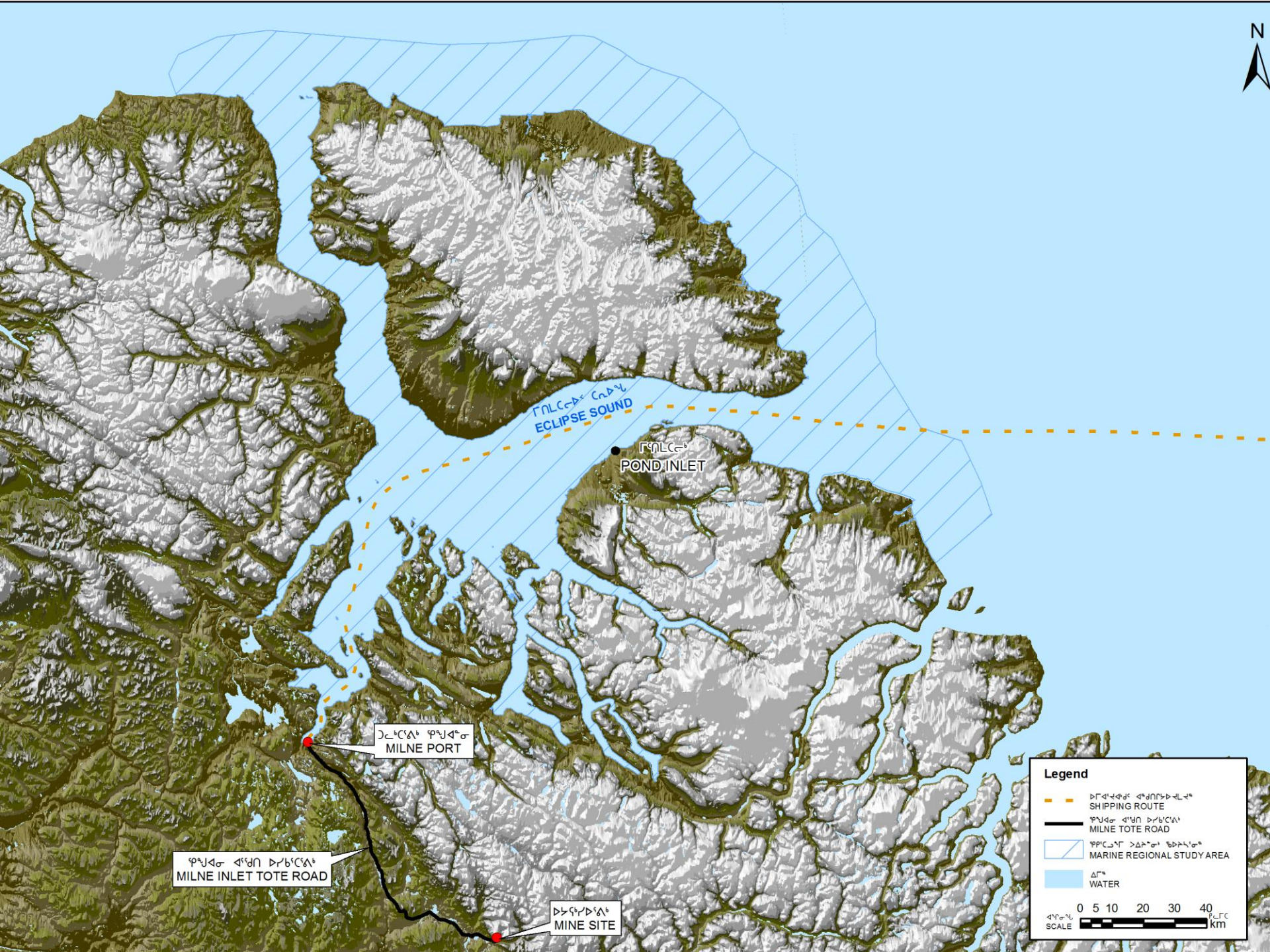




A large cargo ship with a red and white hull is sailing on a calm body of water. In the background, a large, rocky island with a flat top is visible, and further back, snow-capped mountains rise against a clear sky. The water is still, reflecting the ship and the island. A red vertical bar is on the left side of the image.

## Shipping from Milne Port








# Shipping

- Shipment of 3.5 million tonnes per year of ore from Milne Port
- Ships
  - Smallest = 64 shipments (128 transits)
  - Largest = 32 shipments (64 transits)
- Assessment based on 54 ore shipments
  - Conservative for environmental and social assessment
- Fuel deliveries
- Freight deliveries





## NBRLUP, Appendix K - Marine and Terrestrial Transportation/ Communications Corridor Guidelines



# Overview of NBLUP, Appendix K

- Appendix K of the NBRLUP is entitled, “Marine and Terrestrial Transportation/ Communications Corridor Guidelines”
- It is the planning guidelines to be used in the assessment of a new transportation/ communications corridor proposal



# Overview of NBLUP, Appendix K

## 1. The corridor width shall be a function of:

- The number and type of identified facilities within the corridor;
  - Physical and biophysical conditions;
  - Availability of detailed engineering data for one or more transportation modes within the corridor;
  - Safe distances between different facilities within the corridor; and
  - Aesthetics
- Baffinland believes the proposed corridors comply with these considerations



# Overview of NBLUP, Appendix K (cont.)

## 2. Corridors shall:

- Minimize negative impacts on community lifestyles;
  - Improve access to other resources having high potential for development, while still maintaining the shortest practicable distance between the primary resource areas and the trans-shipment location;
  - Be designed in accordance with existing and prospective land use capability including topography, soil, permafrost and wildlife; and
  - Be designed in accordance with the availability of granular supplies.
- Baffinland believes the proposed corridors comply with these considerations



# Overview of NBLUP, Appendix K (cont.)

3. In keeping with existing legal and legislative requirements, including the NLCA, corridors shall not negatively impact:

- Community business, residential and projected expansion areas;
- Important fish and wildlife harvesting areas;
- Key habitat for fish and wildlife species, especially areas used by endangered species;
- Areas of high scenic, historic, cultural and archeological value.
- Baffinland believes the proposed corridors comply with these considerations



# How Baffinland has Listened to Community Comments

- Baffinland's Final Environmental Impact Statement is the largest publication of North Baffin Traditional Knowledge ever produced.
  - This information was used first and far most in our assessments for the Early Revenue Phase
- Bruce Head Narwhal monitoring study with HTO and QIA
- Marine mammal aerial surveys in Milne Inlet, Eclipse Sound and Navy Board Inlet since 2006
- Caribou calving surveys along the Tote Road in 2013
- Marine bird nest surveys in Milne Inlet and Steensby Inlet
- Fish, invertebrate and ballast water studies in Milne Inlet
- Archeological surveys and work for more than 6 years. Community meetings in Igloolik and Pond Inlet specifically on archeology considerations.
- Plant and soil surveys across entire study area to characterize habitat for birds, caribou and other wildlife
- Extensive fresh water studies at Mary River, down to Steensby Port and all the way to Milne Port including Philips Creek.
- Migratory bird surveys and research
- Landform and permafrost investigations for all land transportation corridors
- Social and economic assessments for North Baffin communities



# Conclusion

- Baffinland believes the use of the existing Tote Road and the shipping route comply with Appendix J and K of the North Baffin Land Use Plan
- The Environmental Impact Statement for the Early Revenue Phase has been written to address NPC and NIRB guidelines
  - No significant effects on the environment
  - Positive effects on social and economic considerations