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Presentation to the Nunavut Impact Review Board Regarding the Baffinland Mary River Project



Deposit #1

NIRB Final Hearings
Iqaluit, Igloolik and Pond Inlet, Nunavut

Environment Canada
July 2012



Project Component Locations



Milne Inlet



Steensby Inlet



Outline

- Environment Canada's role in environmental assessment
- Legislation influencing the recommendations
- Summary of main recommendations



EC Role in Environmental Assessments

Environment Canada (EC):

- Screens and reviews development proposals for environmental impacts falling within its mandate
 - Air quality
 - Water quality and quantity
 - Migratory birds and species at risk
 - Emergency response planning
- Provides recommendations and expert advice to the Nunavut Impact Review Board and Nunavut Water Board
- Administers disposal at sea permits

Relevant Acts and Regulations

- *Department of the Environment Act*
- *Canadian Environmental Protection Act (1999)*
- *Fisheries Act* – pollution prevention provisions
- *Migratory Birds Convention Act*
- *Species at Risk Act*



EC's Main Concerns

- Insufficient baseline data to ensure:
 - Mitigation and monitoring plans are thorough and scientifically defensible
 - Impact predictions can be confirmed
 - Potential impacts can be identified early and mitigated
- Comprehensive monitoring needed to address gaps in baseline knowledge, detect project-related impacts and inform adaptive management



Key recommendations – Air quality

- Dustfall monitoring along the railway corridor
- Continuous ambient monitoring of SO₂ at Steensby Port
- Development of an incineration management plan
- Stack emission testing of incinerators prior to commissioning



Key recommendations – Water quality and quantity

- Reference sites for the freshwater and marine
 - Should not be within the mine's zone of influence.
 - Comprehensive sampling program at these sites in 2012
- Acid sensitive bodies of water
 - Some lakes and streams in the area are sensitive to acid
 - 100m setback from water bodies should be observed for quarries with acid generating potential
- Uncertainty in flow estimates is high therefore use precautionary approach in infrastructure design



Key recommendations – Water quality effects from discharges

- Regular monitoring of water quality in all five Local Study Areas
- Investigation of all exceedances of water quality guidelines
- Development of a monitoring program during the construction phase



Key recommendations – Water quality impacts on marine birds

- Use sea water lubricated propeller shaft bearings on project vessels to eliminate leakage of oil
- Monitoring in Steensby Inlet for accumulation of hydrocarbons
- Monitoring benthic community and water quality in Steensby Inlet to verify predictions of ballast dispersal



Migratory birds



Thick-billed murre colony



Ivory Gull



Common eider



Key recommendations – Migratory birds

- Use best management practices for lighting on ships and communication towers to reduce risk of bird collisions
- Continue contributing to marine bird baseline data collection along southern shipping route
- Monitor marine birds during shipping operations using established methodology
- Extend study area into Davis Strait



Key recommendations – Species at risk

- Monitoring for shipping impacts on sea ice and changes to polar bear and seal distribution



Key recommendations – Emergency response

- Timing window for fuel shipment
- Spill response plans include:
 - Inventory of wildlife deterrent equipment
 - Maps of key habitat sites for migratory birds and sensitive shorelines
- Spill response plans for the overwintering fuel vessel address the tracking and recovery of fuel spills under the ice

Ongoing work

- Working groups for ongoing cooperation, and consideration of environmental effects monitoring and mitigation measures relating to the interaction between the Project and terrestrial wildlife and seabirds
- Baffinland will support ongoing baseline studies on marine migratory birds



THANK YOU

