

THE ROLE OF THE INDEPENDENT ENVIRONMENTAL MONITORING AGENCY IN CLOSURE PLANNING AT THE EKATI DIAMOND MINE



2009 Northern Latitudes Mining Reclamation Workshop

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Kevin O'Reilly, Manager, Independent Environmental Monitoring Agency



Presentation Overview



- **Background on Ekati**
- **Reclamation Requirements at Ekati**
- **Independent Environmental Monitoring Agency**
- **Closure Planning Regulatory History**
- **Agency Participation in Closure Planning**
- **Outcomes of Agency Participation**
- **Lessons Learned from Ekati Closure Planning**

Background on Ekati

- 1989 Diamonds discovered in the NWT
- 1994-96 Federal environmental review panel
- 1997 Approved with conditions
- 1998 Commercial production
- 310 km northeast of Yellowknife, above treeline
- Fly-in, fly-out with about 1500 workers
- Started as open pit operation (6 pits), underground mining began in 2006



Reclamation Requirements at Ekati

- **No mandatory statutory or regulatory requirements for closure plan or financial security**
- **Closure plan and security required under water licence(s)**
- **Environmental Agreement provides for a closure plan and financial security**



Independent Environmental Monitoring Agency

- Established through 1997 Environmental Agreement amongst Federal, Territorial Governments and BHP
- Seven members: BHPB, GNWT, Canada, and four Aboriginal Governments
- Seven Directors appointed by Society Members
- No “representation” - all board members are independent
- Budget about \$600,000/yr. provided by BHPB
- After a mediation, Agency budget set and indexed, independence maintained



Mandate of the Agency

- To provide an **integrated approach** to achieving the purpose of the Agreement
- To be a **public watchdog** of the regulatory process and the implementation of this Agreement
- To review relevant environmental quality data in order to **report and make recommendations** concerning:
 - environmental effects monitoring and management
 - government and BHPB reports and activities on compliance
 - effectiveness of using of Traditional Knowledge and experience of indigenous peoples



Mandate of the Agency

- To participate as an **intervenor** in regulatory processes respecting environmental matters
- To establish a **public repository** of environmental data, studies and reports relevant to the project
- To provide programs for the effective **dissemination of information** to the indigenous peoples and the general public about the project



Closure Planning Regulatory History

- **1995 Ekati Environmental Impact Statement contained conceptual closure proposals**
- **1997 First Interim Closure and Reclamation Plan submitted for Ekati pursuant to water licence**
 - approved by NWT Water Board in 1998
- **1998 Second ICRP submitted (revisions made to meet water licence and Environmental Agreement)**
 - approved by NWT Water Board in 1999

Closure Planning Regulatory History

- **2000 Third ICRP submitted**
- **2001 Revised ICRP submitted (based on reviewer feedback)**
 - approved by Mackenzie Valley Land and Water Board in 2002
- **2003 Fourth ICRP submitted**
- **2004 Revised ICRP submitted (based on reviewer feedback)**
 - Not approved by MVLWB due to concerns at July 2004 main water licence renewal public hearing

Closure Planning Regulatory History

- **2007 Fifth ICRP submitted**
 - terms of reference approved by the Wek'eezhii Land and Water Board in 2005
 - Working Group to collaboratively review ICRP
- **2008 Revised ICRP submitted (based on Working Group comments and WLWB direction)**
 - 2009 BHPB seeks clarification on WLWB jurisdiction over fish and fish habitat during reclamation
 - 2009 BHPB files for judicial review of WLWB ruling stating Board has jurisdiction over fish and fish habitat during reclamation

Agency Participation in Closure Planning

- Reviewed and commented on past versions of ICRP
- To better prepare for 2007 ICRP, held internal workshop with technical experts
 - Results shared with the company
 - Experts made available to Aboriginal government staff
- Agency Directors and staff participated in Working Group meetings



ICRP Working Group Site Visit June 2007

Agency Participation in Closure Planning

- Submitted initial comments on each section of the ICRP, verification comments on BHPB's responses
- Met with WLWB staff, other regulators, Aboriginal governments and BHPB staff
- Intervened in the public hearing on the WLWB's jurisdiction over fish and fish habitat during reclamation



Outcomes from Agency Participation

- **Mine-component specific closure objectives and criteria**
- **Improved closure criteria based on desired end-state for VECs**
- **Uncertainties in closure objectives, criteria and options better linked to specific reclamation research plans**



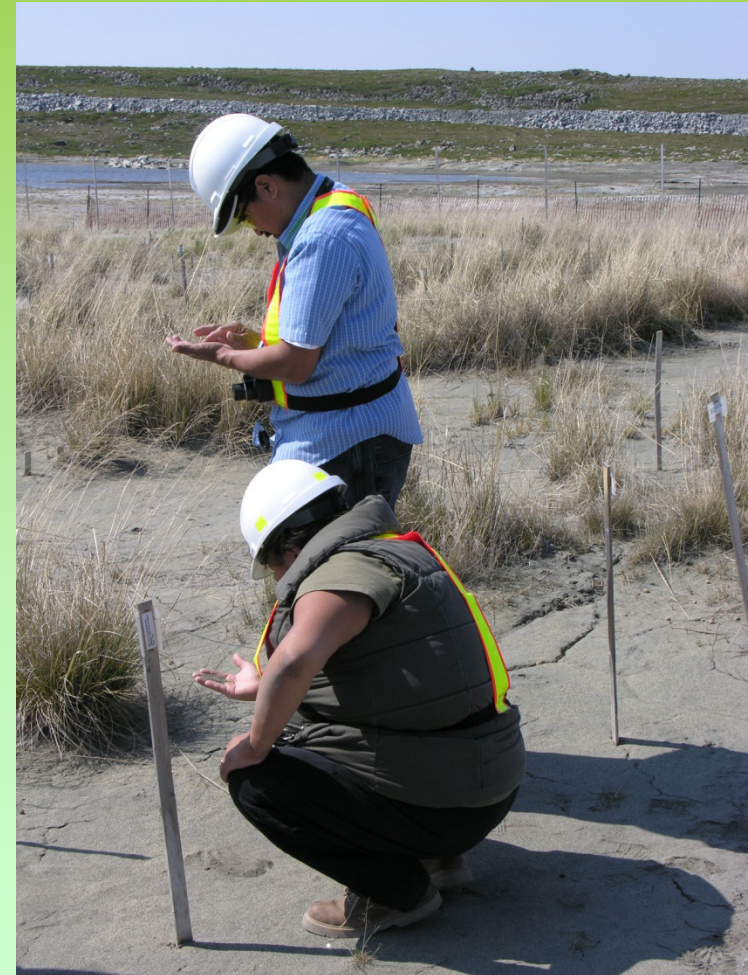
Outcomes from Agency Participation

- **Disagreement on whether pit lakes should allow for safe fish passage and viable aquatic ecosystem**
- **Commitments from BHPB to carry forward revisions into next version of ICRP**
 - **specifics on road closure**
 - **further consultation on waste rock pile ramps**
 - **water flow (above and below ground) between pits at closure**



Outstanding Agency Concerns

- **Scale and pace of progressive reclamation**
- **No scientific reasons to prevent fish passage and revegetated shallow zones in pit lakes**
- **Limited research into extra-fine processed kimberlite in the tailings area, and storage and treatment options**



Outstanding Agency Concerns

- **Revegetation and rock cover design for tailings not finalized**
- **Closure criteria for revegetation sustainability should be developed**
- **Reclamation Research Plans**
 - **More details needed to understand remaining work and to better report progress**
 - **Timelines appear to leave some work until too close to final closure (may not get necessary information in time)**

Lessons Learned from Ekati Closure Planning

- **Current version of the Ekati ICRP is greatly improved over earlier efforts and likely best closure plan ever for a NWT mine**
- **Significant improvements to structure and organization of Ekati ICRP**
 - **Greater clarity on goals, objectives, criteria and options**
 - **Reclamation Research Plan linked to uncertainties in objectives, criteria and options**
 - **Process and content have raised the bar for subsequent closure planning for NWT mines**

Lessons Learned from Ekati Closure Planning

- **Need for earlier and more meaningful consultation with communities and other stakeholders in defining closure objectives, options and criteria**
- **Strong need for capacity building (including funding) for Aboriginal communities to better participate in closure planning**
- **Clearer regulatory guidance needed to set out expectations and closure standards**

Contacting the Agency



Independent Environmental Monitoring Agency

Office: Suite 203, 5006 Franklin Avenue, Yellowknife NT

Mail: P.O. Box 1192, Yellowknife NT X1A 2N8 Canada

Phone: 867-669-9141 **Fax:** 867-669-9141

e-mail: monitor1@yk.com

website: www.monitoringagency.net