Independent Environmental Monitoring Agency 2009-10 Annual Report Summary



A PUBLIC WATCHDOG FOR ENVIRONMENTAL MANAGEMENT AT EKATI DIAMOND MINE" TECHNICAL ANNUAL REPORT 2009-10

A PUBLIC WATCHDOG FOR ENVIRONMENTAL MANAGEMENT AT EKATI DIAMOND MINE[™]

ENVIRONMENTAL MONITORING AGENCY



ANNUAL REPORT SUMMARY 2009-10

THE EK ATI DIAMOND MINE IS OWNED AND OPERATED BY BHP BILLITON CANADA INC.

INDEPENDENT ENVIRONMENTAL MONITORING AGENCY

> A PUBLIC WATCHDOG FOR ENVIRONMENTAL MANAGEMENT AT EKATI DIAMOND MINE™ PLAIN LANGUAGE ANNUAL REPORT 2009-10



Outline

- Agency Activities 2009-10
- Processed Kimberlite and Wastewater Management
- Traditional Knowledge
- Wildlife
- Water and Fish
- Air Quality
- Environmental Impact Report 2009
- Closure and Reclamation
- Regional Monitoring and Cumulative Effects
- Assessment of the Regulators
- Assessment of BHP Billiton





Agency Activities 2009-10

- 5 board meetings, site visits to Ekati, and AGM
- Community visit to Gamètì
- Presentations to Akaitcho Treaty 8 Board and NSMA
- Presentation at Northern Latitudes Mining Reclamation workshop
- Meetings with other signers of Environmental Agreement and Inter-Agency Coordinating Team







Agency Activities 2009-10

- Reviewed aquatic and wildlife monitoring programs
- Reviewed
 Environmental Impact
 Report 2009 and other
 BHPB documents
- Interim Closure and Reclamation Plan legal disputes and Supreme Court judicial review
- More focus on communications









Processed Kimberlite and Wastewater Management

- Fay Lake area appears stable after 2008 spill
- WLWB approved use of Beartooth pit as a sump to store minewater
- Second part of nitrate experiment in LLCF Cell D completed
- Review of 2010 Wastewater and Processed Kimberlite Management Plan showed number of deficiencies









Traditional Knowledge

- BHPB TK projects with KIA, LKDFN, jobshadowing, donations for community gatherings
- Toolbox for including TK in AEMPs (DIAND)
- Repeat recommendation from Agency on need to document use of TK in mine management
- Agency recommendation rejected by BHPB

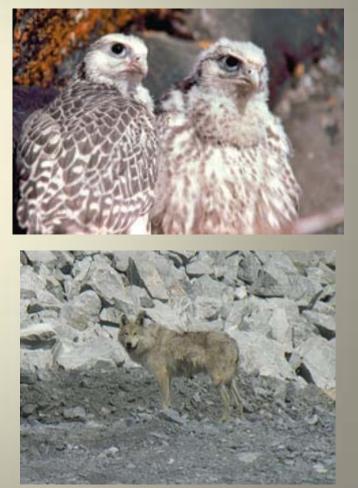




Wildlife

- Review of 2009 WEMP report
- Review of wildlife monitoring programs at diamond mines
- Changes to wildlife monitoring at Ekati: no aerial caribou surveys; no wolverine or grizzly monitoring
- Mine footprint: 2,992 ha (almost 30 km²)
- Wildlife deaths in 2009: 7 small animals (vehicle-related); 9 non-vehicle (8 caribou [including 4 caribou in airport fence] and 1 fox)
- Moose seen south of Lac de Gras in July (moose also seen at Exeter Lake in 2008)







Wildlife

- The Agency recommends that BHPB complete its wildlife monitoring review with the other diamond mines.
- BHPB has committed to continuing the WEMP review process. Two workshops were held in 2010 to help develop an improved WEMP: technical (July) and community/TK (October).
- Wolverine and grizzly DNA hair-snagging done in 2010 (and planned for 2011)



Water and Fish

- SPB water licence renewal
- One water licence for entire mine
- 2009 monitoring results: nitrate levels and some metals still high, lowest # of species ever for water bugs in Leslie and Moose Lakes
- Nitrate in mine wastewater
- NWT water quality standards still under development
- Lake mud samples beside main camp show dioxins and furans
- New incinerators <u>STILL</u> not working
- PDC 10-year review distributed by BHPB









Air Quality

- Agency contracted an independent review of 2008 Air Quality Monitoring Program (AQMP) report
- GHG emissions 25% less than in 2003-2005
- Continuous Air Monitoring
- High Volume Air Sampling
- Dust monitoring
- Snow sampling
- Lichen sampling



Environmental Impact Report 2009

- Agency review showed number of deficiencies, which resulted in Minister's Report
- BHPB made important improvements, including process for better consultation on future EIRs



Environmental Impact Report 2009

- Agency recommends that BHPB host an EIR workshop to better define the purpose and focus of the EIR, review the methodology, and better define adaptive management for the mine.
- BHPB has committed to an open "pre-EIR" meeting in 2011 to kick off the 2012 EIR process. The workshop could address the items identified by IEMA as well as other topical issues.
- Indian and Northern Affairs Canada (INAC) supports this recommendation.



Closure and Reclamation

- Two serious issues with current ICRP:
- BHPB proposed fish barriers for pit lakes for first time ever in 2007.
 Agency and others of the view this is not desirable or necessary.
- 2) Reclamation Research Plans need more detail, and lack of progress is a major concern.
- ICRP improved through Working Group
- BHPB challenged WLWB jurisdiction over fish and then appealed to courts
- Supreme Court: Too early to decide, let WLWB do its job





Regional Monitoring and Cumulative Effects

- GNWT project on cumulative effects in Bathurst herd summer range not yet completed
- Joint GNWT-Tlicho proposal for Bathurst caribou management, submitted to WRRB May 2010
- \$8 million in federal budget for cumulative effects monitoring and management





Assessment of the Regulators

- Regulators effective and work together.
- DFO staff helpful and continue work on contaminants studies for northern fish.
- DIAND inspections are high quality. Good reviews of 2009 EIR and AEMP.
- Disappointed that DFO and DIAND dropped out of judicial review.
- EC has good advice on air quality monitoring. Useful study on links between burning garbage and pollution of lake sediments/water.
- GNWT-ENR work on 2009 EIR was helpful. Caribou monitoring at the mines should be higher priority.
- WLWB staff helpful. Well-run process to combine water licences, well-handled judicial review. Disappointed in decision to allow use of Beartooth as minewater sump.





Assessment of BHP Billiton

- BHPB operates Ekati in environmentally sound way, with room for improvement.
- Need to move forward on reclamation planning and research.
- Concerns with 2009 EIR led to helpful meetings but still needs more work.
- 3-year AEMP review was useful
- 2008 AQMP report being reviewed
- Environmental monitoring programs show improvement, but still not clear on how results are used or how changes are made.







THANK YOU!



Independent Environmental Monitoring Agency

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