

# Ekati Closure and Reclamation Plan Working Group Advisory Document

**Prepared:** October 31, 2007

**Files:** MV2001L2-0008 & MV2003L2-0013

**Working Group Meeting Date:** September 28, 2007

**Board Meeting Date:** November 19, 2007

**SUBJECT:**

Section 2 (Section 6.1 – 6.3 and associated sections of appendix D) of the Ekati Interim Closure and Reclamation Plan (ICRP) as submitted by BHP Billiton Diamonds Inc. (BHPB).

**REGULATORY HISTORY:**

On January 15, 2007 BHP Billiton submitted an Interim Closure and Reclamation Plan (ICRP) to the WLWB to satisfy the requirements of Water Licences MV2001L2-0008 and MV2003L2-0013.

Submission of the ICRP reactivated the Working Group responsible for providing “... *opinions and recommendations in a timely manner to the Board on the technical soundness and adequacy of the ICRP in fulfilling the requirements set out in Water Licences MV2001L2-0008 (part L) and MV2003L2-0013 (part J), and the requirements set out in the ICRP Terms of Reference once approved by the Board*” (taken from the Working Group Terms of Reference, December 2005).

1. The ICRP was divided into four sections to ease its review:

Working Group Section	Corresponding Parts of the ICRP
1	1. Executive Summary 2. Introduction 3. Scope 4. Project Background 5. Mine Overview  Appendix A - Terms and Definitions Appendix C - Closure Goal, Objective and Criteria
2	6.1 Open Pits 6.2 Underground Mines 6.3 Waste Rock Storage Area  Appendix D- Engineering Summary only those items that apply to sections 6.1 -6.3
3	6.4 Processed Kimberlite Containment Facilities 6.5 Dams, Dykes and Channels 6.6 Buildings and Infrastructure

	Appendix D - Engineering Summary only those items that apply to sections 6.4-6.6.
4	7. Temporary Closure Measures 8. Environmental Assessment 9. Progressive Reclamation  Appendix F - Reclamation Research Plan Appendix G - Post Closure Monitoring
Sections of the ICRP providing background and supplementary information, but were not to be reviewed and approved by the Board.	Appendix B - Community Consultation Summary Appendix E - Risks and Contingencies Appendix H - Expected Cost of Closure and Reclamation Appendix I - ICRP Terms of Reference Appendix J - Plain English Summary

2. A familiarization phase began on January 18, 2007 and lasted four weeks. No written comments were required at the end of this phase but members were encouraged to review and become familiar with the plan in its entirety. This phase ended on February 18, 2007.
3. Immediately following the familiarization phase was the review and comment period for Section 1 of the ICRP. Following the review and comment period, BHPB provided responses to all received comments. The section 1 working group meeting was held on May 3, 2007. Following the meeting, members had one week to provide written comments verifying whether or not BHPB's responses satisfied those comments and concerns raised before or during the meeting. BHPB used this opportunity to respond to recommendations made during the meeting. This verification period ended on April 18, 2006.
4. The section 1 Advisory Document was presented to the Board on May 25, 2007.
5. The section 2 review was initiated following the receipt from BHPB of the revised closure objectives and criteria tables on June 22, 2007. The deadline for the submission of comments to be reviewed during the working group was July 27, 2007. Members were encouraged to discuss questions and concerns with BHPB prior to the submission of the comments. Comments were provided by INAC, DFO, NSMA, IEMA, JW (the Board's consultant), GNWT-ENR and EC.
6. On August 10, 2007, the WLWB reviewed the comments provided by all parties and provided direction to BHPB. BHPB provided their responses to comments on September 14, 2007 to allow two weeks for parties to view BHP's responses.
7. The Working Group meeting for section 2 was held on September 28, 2007.
8. Following the meeting, members had one week to provide written comments verifying whether or not BHPB's responses satisfied those comments and concerns raised before or during the meeting. BHPB used this opportunity to respond to recommendations made during the meeting. This verification period ended on October 5, 2007. Verification comments were provided by INAC, DFO, IEMA, JW (the Board's consultant) and GNWT-ENR.

## **ATTENDEES AT SEPTEMBER 28, 2007 WORKING GROUP MEETING:**

Zabey Nevitt	WLWB	Helen Butler	BHP Billiton
Ryan Fequet	WLWB	Laura Tyler	BHP Billiton
Claire Singer	GNWT-ENR	Marc Wen	Rescan
Colleen Roche	GNWT-ENR	Kevin Jones	EBA Engineering
Bruce Hanna	DFO	Bill Ross	IEMA
Lisa Lowman	EC	Kevin O'Reilly	IEMA
Nick Lawson	Jacques Whitford	Lionel Marcincoski	INAC
Steve Wilbur	Jacques Whitford	Julian Kanigan	INAC
Archie Catholique	LDFN	Jason Brennan	INAC

## **SUMMARY OF REVIEW COMMENTS AND OPINIONS OF MEMBERS:**

Two significant issues remained outstanding following the Working Group meetings, and the subsequent verification comments

### **(1) The creation of fish habitat / littoral zones within the pits as a closure and reclamation technique (Tracking #s 1-8, 10-15 & 24-27).**

Working Group Members have requested that BHPB consider implementing shallow areas around the edges of the pits as a restoration technique for the closure of their pits, as well as allowing fish to re-enter the pits once they are filled.

Working group members including Department of Fisheries and Oceans, Indian and Northern Affairs Canada and the Independent Environmental Monitoring Agency all support the creation of a littoral zone around the pit edge at closure to facilitate ecological regeneration. BHP Billiton has taken the position that as they have already compensated for lost fish habitat in the past by entering into an agreement (Fisheries Act Authorizations) with DFO, they should not be required to recreate fish habitat.

BHP Billiton and DFO are currently undergoing discussions to try and resolve this issue. They have indicated that they will advise the board of any agreement at which time other members of the Working Group will be informed.

### **(2) The timing of the Beartooth Pit closure with the completion of closure-related research and the ICRP approval from the WLWB. (Tracking #67)**

The completion of mining operations within the Beartooth Pit is expected to take place in 2009 before another revision of the ICRP is likely to be developed. Members of the Working Group raised concerns that the closure option for Beartooth pit, i.e., pump flooding will be approved in this version of the plan as a final closure option, and other options, including the placement of processed kimberlite, or waste rock in the pit will not be considered as research on the applicability of these options will not be available to BHPB and reviewers before the closure options for Beartooth are decided on.

Board staff and BHPB met to discuss this issue further following the Working Group meeting.

Research to examine closure options for the Beartooth pit is ongoing and the schedule for this research is outlined in the reclamation research plan (section 4). The company has noted, and Board staff agree that a series of approvals would be required before the company could carry out the proposed reclamation activities (i.e., pit flooding) and therefore reviewers will be provided with opportunities to review and comment on final closure options prior to reclaiming the pit. Further, it is an option that the Board could decide (as part of a possible conditional approval of the ICRP) to direct BHPB to carry out further work in relation to the Beartooth pit.

### **OTHER ISSUES:**

- The use of wildlife ramps on the waste rock piles. Several reviewers, while unwilling to commit to a preferred option, raised concerns about the construction of wildlife ramps onto the waste rock piles. BHPB has noted that they are flexible regarding the Board's final decision regarding this issue **(tracking #201 & 202)**.
- The suggestion by BHPB to leave the berms surrounding the pits in place after the pits have been filled will require further discussion. However, reviewers have indicated that this as a minor issue which should be resolved with further dialogue between BHPB and concerned parties **(tracking #68 & #91)**.
- The downstream effects of water extraction volumes and rates from source lakes (when pumping to fill pits) on aquatic mammals remains a concern for ENR **(tracking #81)**.
- ENR remains concerned with the availability of information relating to the geocharacterization of the waste rock piles. **(tracking #212)**
- ENR continues to be concerned that the link between increased raptor nesting habitat and the effect on passerines and other migratory birds has not been discussed **(tracking #254)**.

### **PARTICIPATION IN THE WORKING GROUP PROCESS**

Board staff wish to bring to the attention of the Board the challenge of ensuring the effective participation of organizations, particularly aboriginal organizations, in the working group process. Following the completion of the working group meeting, three parties (the North Slave Metis Alliance (NSMA), the Kitikmeot Inuit Association (KIA) and the Lutselk'e Dene First Nation (LDFN)) sent emails to Board staff stating concerns about capacity to participate and expectations of representatives that do participate

Only one of the aboriginal organizations (LDFN) sent a representative to the section 2 Working Group meeting. To date the Tlicho Government has not participated in the process, the NSMA has been active up until the WG#2 meeting, and the KIA and YKDFN have also not participated.

Environment Canada did not send an attendee to the meeting who was able to discuss any of the issues raised by Environment Canada in their section 2 comments, no verification comments were sent.

BHPB raised concerns during the section 2 Working Group meeting that the ICRP process was established as a mechanism to review the plan, and no other forum, other than the hearing would be available to discuss issues parties may

have. Concern was raised that the working group process may not achieve its purpose if many organizations are not participating, but only intend to present during the hearing.

Board staff indicated that there was little they could do to ensure participation as the Board has no jurisdiction to provide intervener funding or mandate participation. However Board staff indicated that they would encourage all parties to continue a dialogue with BHPB in order to improve the understanding of the plan and resolution of issues. Should these parties raise substantial concerns at the Hearing, the Board may be requested to rule on whether these concerns should have been addressed during the Working Group process.

**RECOMMENDATIONS:**

Board staff recommendations:

1. BHPB and DFO continue dialogue regarding the issue with the fish authorization and keep the Board updated on the status of these discussions.
2. Parties which have other concerns be encouraged to continue discussions with BHPB to find resolution and clarification.

**ATTACHMENTS:**

- Comment Summary Table

**Respectfully submitted,**



**Ryan Fequet**



**Zabey Nevitt**