

Comment Table – ICRP WORKING GROUP #3

Received From – (GNWT – Environment and Natural Resources)

ICRP SECTION	TOPIC	COMMENT
	<p align="center">Long Lake Containment Facility - Wildlife</p>	<p>BHP Billiton proposes a combination rock and vegetation cover of the Long Lake Containment Facility (LLCF) rather than an engineered cap. Currently, revegetation trials demonstrate that many native grasses will colonize and persist in the fine-grained tailings of the LLCF. Grasses provide forage for many herbivores and may attract wildlife to the site potentially exposing them to elevated metals and other constituents present in the processed kimberlite. While the bioaccumulation of these constituents may not be an issue due to low exposure times, attracting wildlife to a site that has many hazards (i.e. waste rock piles, pit lakes, etc.) is not desirable. ENR recommends that the site (post-closure) should provide a neutral landscape; neither attracting nor deterring wildlife and designed to be as hazard-free as possible. In this regard, ENR staff request that BHP Billiton continue research in this area specifically focusing on:</p> <ul style="list-style-type: none"> • A comparison between a rock/vegetative cover vs. an engineered cap in the following areas: <ul style="list-style-type: none"> ○ Comparison of the risk associated with exposure to metals and other constituents of the processed kimberlite by herbivores as opposed to no exposure due to capping of the LLCF. (This should consider those elements omitted from the Wildlife LLCF Risk Assessment March 2004 such as: barium, selenium and magnesium). ○ Those plant species least palatable to herbivores and those least likely to bioaccumulate metals and other elements that may be toxic or in toxic quantities. ○ Risk of attraction of wildlife and subsequent exposure to onsite hazards post-closure.

		<ul style="list-style-type: none"> ○ Timeframe over which stability and security of containment is achieved and how well it withstands over time (i.e. vegetation takes time to establish and therefore containment is not immediate). ○ Dust generation
	Long Lake Containment Facility – Environmental Protection	<p>Table 54 contains information about the historic tonnages and volumes and predicted amount of processed kimberlite that will be placed in the LLCF.</p> <p>In the review of BHP’s Environmental Impact Review 2006 (EIR), it was noted that other waste products are deposited here as well, including treated sewage and hydrocarbons.</p> <p>ENR requests that a table similar to Table 54 (containing total deposition to date and predicted deposition at the end of mine life) be provided, detailing all other products that will be placed in the LLCF.</p> <p>Further to this point, ENR asked in our review of the EIR that BHPB consider alternative methods for the disposal of extractable petroleum hydrocarbons. It was projected at the time of the EIR that up to 50 000 kg of hydrocarbons would be placed in the LLCF over the mine life. Could the proponent provide an update as to the status of this request?</p>
	Information Requirements	<p>One of the objectives in having an interim closure plan should be to provide sufficient detail to allow for an independent agency to carry out closure activities, if required. To this end, could the proponent provide further information in the ICRP on how drainage of the PK occurs, the timing of this process - specifically the criteria for determining when the cover materials should be placed on top to ensure the cover does not sink into the processed kimberlite slurry. A discussion of the expected performance of the cover during extreme climatic events such as freshet should also be included.</p>