

ADDITIONAL SUPPORTING INFORMATION REGARDING THE APPLICATION OF OFFSETS FOR THE OREBODY 32 EAST ABOVE WATER TABLE MINE PROJECT REFERRAL

The Orebody 32 East Above Water Table Mine Project Referral (the Proposal) is the second BHP Billiton Iron Ore Pty Ltd (BHP Billiton Iron Ore) Proposal to be referred to the Environmental Protection Authority (EPA) following the release of the *Offsets Guideline* (WA Government, 2014)¹. To date, no active BHP Billiton Iron Ore mine operation has been conditioned for offsets under a Ministerial Statement.

A BHP Billiton Iron Ore Offsets Strategy is currently being developed and will continue to develop throughout this year in parallel to the EPA's update of the *Offsets Guideline* 'to include further information on the use of metrics in determining offsets and on the determination and application of offsets for cumulative impacts' (WA Government, 2014 p. 3), through avenues such as established strategic working groups.

This correspondence has been compiled to:

- a) explain how BHP Billiton Iron Ore has completed the required Offsets Template for the Proposal; and
- b) explain work currently underway to answer the questions in the required *Offsets Template Form*. This work will be addressed within an *Impact Reconciliation Procedure* for the Proposal and will also be presented as necessary for discussion at strategic working group meetings.

Completed Offsets Template Form for the Orebody 32 Above Water Table Iron Ore Mine Project

The required *Offsets Template Form* is completed and attached to this document. Following application of the Mitigation Hierarchy outlined in the *Offsets Guideline* (WA Government, 2014). BHP Billiton Iron Ore has divided proposed native vegetation clearing this into two types of 'clearing domains'. These are:

- mine pit; and
- infrastructure (this includes, for example, haul roads and stockpiles, etc.).

In the case of this Proposal, BHP Billiton Iron Ore understands that, in accordance with the *Offsets Guideline* (WA Government, 2014), offsets will be applied to the proposed clearing of 'Good-to-Excellent' vegetation.

Notwithstanding this, it is noted that BHP Billiton Iron Ore has been undertaking rehabilitation activities since the 1970's. Considerable work has been undertaken in recent years to compile and interpret rehabilitation monitoring data. The data indicates that several domains can be rehabilitated back to a comparable 'Good-to-Excellent' condition. At the appropriate time, BHP Billiton Iron Ore will present relevant information to the OEPA and other decision-making authorities.

BHP Billiton Iron Ore's view on its rehabilitation practices as listed in the attached completed *Offsets Template Form* for this Proposal is briefly explained below.

¹ Following the recent submission of the BHP Billiton Iron Ore Pty Ltd Orebody 31 Iron Ore Mine Project on 20 March 2015

Orebody 32 Clearing Domains

Mine Pit – 220 ha

The 'worst-case' scenario for the Proposal is that the mine pit will not be backfilled. Therefore, BHP Billiton Iron Ore acknowledges that the mine pit will be subject to offsets based on the 'worst-case' scenario.

Infrastructure, roads and associated stockpile areas – 130 ha

BHP Billiton Iron Ore is currently reviewing and compiling a range of monitoring data which is expected to demonstrate that these clearing domains can be rehabilitated back to a comparable 'Good-to-Excellent' condition. At the time of submission of this Proposal, however, BHP Billiton Iron Ore acknowledges that clearing for these purposes will be subject to offsets based on the limited amount of publically available data at the present time.

Continuous improvement in rehabilitation at BHP Billiton Iron Ore

BHP Billiton Iron Ore acknowledges the journey it is currently on with regard to continuous improvement in rehabilitation. BHP Billiton Iron Ore believes that there are valuable opportunities available to showcase success in rehabilitating selected clearing domains back to a 'Good-to-Excellent' condition, thus reducing residual impacts as a result of native vegetation clearing in the Pilbara region in the future. These successes would provide learning and sharing opportunities across the industry to a range of proponents and we look forward to discussing these further at the appropriate time.

Orebody 32 East Above Water Table Mine Project									
Existing environment/ Impact	Mitigation			Significant Residual Impact	Offset Calculation Methodology				
	Avoid and minimise	Rehabilitation Type	Likely Rehab Success		Type	Risk	Likely offset success	Time Lag	Offset Quantification
220 hectares of 'Good-to-Excellent' vegetation to be cleared for: a pit area.	The worst-case scenario is that the mine pit will not be back-filled.	Site-specific approach.	<p><u>Can the environmental values be rehabilitated/Evidence?</u></p> <p>No. Various closure scenarios are being investigated, however, worst case is the pit will not be backfilled.</p> <p>The Proponent would like the EPA to note that there are comparable sites whereby mine batters have been successfully rehabilitated. The Proponent proposes to compile case-studies and present to the EPA as part of discussions via working strategy groups and/or in relation to future developments.</p>	<p><u>Extent</u> 220 hectares</p> <p><u>Quality</u> Degraded</p> <p><u>Conservation Significance</u> Nil</p> <p><u>Land Tenure</u> Pastoral Lease or Unallocated Crown Land.</p> <p><u>Time Scale</u> Permenant</p> <p><u>According to the agreed significance framework, residual impact is considered to be significant because:</u> 220 hectares of 'Good-to-Excellent' vegetation in the Pilbara Hamersley IBRA sub-region will be cleared and potentially not rehabilitated.</p>	Monetary offsets contribution to the Pilbara Offsets Strategic Fund	N/A	Suggested Ministerial Conditions are provided in the Orebody 32 East Above Water Table Iron Ore Referral Supporting Document	Permanent	\$750 per hectare of 'Good-to-Excellent' vegetation cleared within the Hamersley IBRA subregion.
130 ha hectares of 'Good-to-Excellent' vegetation to be cleared for: haul road, stockpiles and ancillary purposes.	Avoid/minimise - Use existing infrastructure such as workshops, offices, etc. at adjacent Orebody 24 and Orebody 25.	130 hectares rehabilitated back to 'Good-to-Excellent'.	<p><u>Can the environmental values be rehabilitated/Evidence?</u></p> <p>Yes. BHP Billiton Iron Ore has successes in rehabilitainga a range of low-impact disturbances of a comparable nature and timeframe at various Pilbara operations. Further information is contained within a memo attached to this spreadsheet.</p> <p><u>Operator experience in undertaking rehabilitation?</u> Yes, please refer to the memo attached to this spreadsheet.</p> <p><u>What is the type of vegetation being rehabilitated?</u> Hummock and Tussock Grassland frequenting with Acacia.</p> <p><u>Time lag?</u> 12 years post closure.</p> <p><u>Credibility of the rehabilitation proposed (evidence of demonstrated success)</u> Please refer to the memo attached to this spreadsheet for discussion and a brief overview of recent successes in the rehabilitation of comparable low impact clearing. The Proponent would like the EPA to note that extensive rehabilitation monitoring data is currently being compiled to demonstrate the credibility of its rehabilitation. The Proponent proposes to compile case studies for presentation to the EPA in future.</p>	<p><u>Extent</u> 130 hectares</p> <p><u>Quality</u> The Proponent has had successes in rehabilitating 'low impact' clearing disturbance back to a similar pre-mining condition.</p> <p><u>Conservation Significance</u> Nil</p> <p><u>Land Tenure</u> Pastoral Lease or Unallocated Crown Land.</p> <p><u>Time Scale</u> 12 years post closure</p> <p><u>According to the agreed significance framework, residual impact is considered to be significant because:</u> 130 hectares of 'Good-to-Excellent' vegetation in the Pilbara Hamersley IBRA region will be cleared and based on recent comparable successes, it may potentially be rehabilitated back to a comparable pre-mining condition.</p>	Monetary offsets contribution to the Pilbara Offsets Strategic Fund	N/A	Suggested Ministerial Conditions are provided in the Orebody 32 East Above Water Table Iron Ore Referral Supporting Document	12 years post closure	\$750 per hectare of 'Good-to-Excellent' vegetation cleared within the Hamersley IBRA subregion.