

## Appendix A3: Nature Conservation Act Response

The following Appendix is in response to the EIS comment from DERM relating to the requirements under the Nature Conservation Act 1992.

### Biodiversity offset management plan

A biodiversity offsets package (Appendix A2- Offset Strategy Document) is being developed in consultation with DEWHA and DERM as a separate Biodiversity Offset Management Plan to address the objectives of both the current State & Commonwealth legislative offset requirements. The Offset Management Plan will be implemented over an appropriate time frame to accomplish the following objectives:

Identify suitable potential offset areas with ecological values analogous to EPBC endangered ecological communities: brigalow (*Acacia harpophylla* dominant and sub-dominant); and

- Natural Grasslands of the Queensland Central Highlands (formerly listed as bluegrass *Dichanthium spp.* dominant grasslands of the Brigalow Belt Bioregions);
- assess the ecological value and equivalence of offsets to ensure comparable offset extent, species assemblage, floristic structure and ecological integrity utilising an appropriate biometric methodology,
- develop appropriate management prescriptions to ensure long term viability of offsets (such as pest
- control, livestock management, access exclusion, ameliorative plantings and fire regime management);
- develop appropriate covenants for the future conservation and management of offsets; and
- develop appropriate monitoring and maintenance activities and performance review process to ensure long term viability of the offsets.

The extent of significant vegetation communities proposed to be offset is detailed in Section 8.1.2.1 and Table 8.4 of the EIS; and Section 5.1.1 and 5.3 Table of Appendix K. The process of developing a suitable Biodiversity Offset Management Plan is an iterative process with State and Commonwealth regulatory bodies.

### Relocation of Infrastructure to minimise impacts to brigalow

The previous location of the coal conveyor belt in the southern area of the project dissected a stand of significant brigalow dominated vegetation (RE 11.4.9), (Figure 8.6 Section 8.1.1.3 of EIS). The previous location of the conveyor would have directly resulted in the clearing of 4.4 ha of brigalow, leaving two stands of brigalow approximately 3.3 ha and 19.5 ha in extent to the north of the conveyor and one larger stand of contiguous vegetation of approximately 82.4 ha to the south of the conveyor. Fragmentation of this stand will potentially increase edge effects to the brigalow communities from weed invasion, particularly effecting the two smaller extents of less viable brigalow to the north of the conveyor.



A re-design of the conveyor corridor has been undertaken to minimise clearing impacts and fragmentation of this community. The previous conveyor corridor width was approximately 120 m wide to allow for a service road and associated infrastructure. Reconsideration of the conveyor corridor design and relocation of the proposed service road has allowed for the conveyor corridor to be narrowed significantly to 40 m.

The conveyor alignment itself has also been moved approximately 360 m to the north of the previous design to minimise the area intersection the brigalow community. The re-location and narrowing of the conveyor corridor has effectively halved the brigalow proposed to be clearing, resulting in an extent of approximately 2.1 ha of brigalow potentially impacted.

Direct clearing impacts on this community previously represented approximately 0.03% of the local extent of brigalow. This has been reduced to 0.015 % of the local extent with the re-alignment and reduction of width for the conveyor.

The redesign of the conveyor corridor has also effectively increased the surface area and extent of connectivity of the stand of remaining brigalow to the south of the conveyor increasing it to a single 117ha stand of contiguous vegetation. This reduces the probability of edge effects to this community and increases the long term habitat viability.

Potential impacts associated with the operation of the overland conveyor are likely to be restricted to particulate emissions (e.g. coal dust) and their effect upon vegetation immediately adjacent to the overland conveyor (e.g. reduced photosynthetic and transpiration rates). The adoption of standard dust suppression will minimise any such impacts. It is anticipated that operation of the overland conveyor would have limited deleterious impacts on native fauna.

Re-design of the conveyor to move it further north (and ideally out of the brigalow community) was investigated, however to do so would require the installation of transfer towers and other associated infrastructure such as a power supply and water supply for dust suppression, all of which amounts to potential significant impacts to the adjacent vegetation.

### **Assessment of Impacts to significant species and vegetation communities**

Specific and detailed assessment of impacts to all vegetation communities and conservation significant species including endangered, vulnerable, rare and near threatened species (including the koala) are identified and outlined in within Section 8.2.2, Table 8.11, Table 8.12 and Appendix K of the EIS. Assessment includes source of impact, impact type (e.g. direct, indirect, habitat loss, etc) likely hood of impact occurrence, mitigation and /or compensatory measures and residual impact classification. Specific impacts to all 'of least concern' species are not addressed specifically and are not a requirement of the TOR, however impacts to 'of least concern species' are implicitly addressed under the descriptions of overall impacts to faunal assemblages in Section 8.2.2 of the EIS and Section 5.0 Appendix K. Specific detail on direct mechanisms for mitigation and compensatory measures for the management of conservation significant species and vegetation communities, and pest species are also outlined within the both construction and operation Environmental Management Plans.

## **Fauna Survey**

The survey design, methodology and survey effort undertaken for the baseline flora and fauna assessments were developed and undertaken by experienced ecologists and fully meet the requirements of the Terms of Reference (ToR) for the project. The survey is consistent with the currently accepted standards for full terrestrial vertebrate fauna surveys and vascular flora surveys in Queensland (EPA, 1999). The surveys undertaken effectively quantify the faunal and floral assemblages for the study area for the purpose of impact assessment. Surveys include review of fourteen previous ecological surveys of the site (Appendix 1 of Appendix K the EIS) under different seasonal and climatic conditions. Further fauna surveys conducted in the proposed overland conveyor area are not expected to reveal further data on faunal assemblages of potential for conservation significant species that cannot not be derived or extrapolated from current survey data. Pre-clearing fauna surveys within appropriate habitat will be conducted to mitigate potential impacts to conservation significant species. Measures for pre-clearing surveys will be outlined within the fauna section of Construction Environmental Management Plan.

### **'Back on Track' Species**

Discussion of the DERM 'back on track' species list has not previously been addressed in the EIS as it was not a requirement of the ToR. It should also be noted that the 'back on track' species listings and associated Recovery Actions Database (RAD) is still under development as a framework for DERM to prioritise conservation tasks for significant species. DERM have been contacted (pers. comm.. Senior Conservation Officer, Threatened Species and Ecosystems Unit, Conservation Services Division) and have undertaken to provide any draft information that may be available for relevant 'back on track species'. This information will be considered, and incorporated into mitigation strategies where appropriate, as it comes to hand.

### **Identification of EPBC listed species habitat on site**

Presence of suitable habitat for conservation significant species listed under the EPBC act is described in Section 8.2.1.1 and Table 8.8 of the EIS, and discussed in specific detail in Section 4.3.3 of Appendix K of the EIS. Habitat values for species are also discussed in detail in Section 4.3.8 of Appendix K of the EIS.

### **Rehabilitation and long term maintenance of habitat**

Long term re-establishment of ecosystem functionality is a key objective of the rehabilitation plan for the project (Section 4.8.6 of the EIS). Steps identified to meet this objective include:

- success criteria and targets (Section 4.8.6.1, Table 4.30 and Section 3.7.5 of Appendix Q of the EIS);
- specific rehabilitation prescriptions and (Section 4.8.6.5 of the EIS),
- maintenance requirements (Section 4.8.6.5 of the EIS),
- monitoring requirements (Section 4.8.7, and Section 3.7.7 of Appendix Q of the EIS)
- and rehabilitation commitments (Section 3.7.8 of Appendix Q of the EIS)



The above steps are outlined to guide progressive rehabilitation of disturbed areas in order to ensure the long term re-establishment of ecosystems and habitat. Opportunities to enhance or restore connectivity of habitat across the landscape will be identified during development of a detailed Rehabilitation Management Plan that addresses site specific rehabilitation issues and requirements relevant to operations as they progress. The above commitments are proposed to be listed as Environmental Authority Conditions for the Project (Section 3.7.9 of Appendix Q of the EIS).

The above includes a commitment to undertake progressive rehabilitation of disturbed ground within 2 years of disturbance, this timeframe for rehabilitation is in keeping with industry best standard, and complies with the objectives of the BMA Guideline for the Design of Sustainable Mine Landforms (Appendix R5). The commitment is also proposed in the EMP (Appendix Q of the EIS ) to be a condition of the mine Environmental Authority.