



Office of
Environment
& Heritage

Your reference: SSD-5170 MOD 1
Our reference: DOC15/317145-9
Contact: Robert Gibson, 4927 3154

Mr Carl Dumbleton
Senior Planning Officer
Resource Assessments and Compliance
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Dumbleton

RE: REVIEW OF BENGALLA MINE CONTINUATION PROJECT MODIFICATION 1 - STATEMENT OF ENVIRONMENTAL EFFECTS

I refer to your email dated 14 August 2015 requesting comment on the Statement of Environmental Effects (SEE) for a modification to the approved Bengalla Continuation Project State Significant Development (SSD-5170). This Modification is sought under section 96(2) of the Environmental Planning and Assessment Act 1979 and involves:

- additional locations for the approved explosives storage facility
- moving the fill from Clean Water Dam 1 to a new location
- changes to the approved water management system, including additional dirty water storage, relocating a discharge point and revising two dam locations.

The Office of Environment and Heritage (OEH) has undertaken a review of the SEE titled 'Bengalla Mine: Development Consent Modification Statement of Environmental Effects for Bengalla Mining Company Pty Limited. August 2015', prepared by Hansen Bailey and dated August 2015. OEH's detailed comments are provided in **Attachment A**.

In summary, OEH has concerns with the assessment of threatened biodiversity and the absence of any biodiversity offsets for proposed impacts. OEH requests that these concerns be appropriately addressed prior to recommended conditions of approval being provided for threatened biodiversity. OEH did not identify any Aboriginal cultural heritage or flooding issues so long as all regulatory requirements are followed.

If you require any further information regarding this matter please contact Robert Gibson, Regional Biodiversity Conservation Officer, on 4927 3154.

Yours sincerely

7 SEP 2015

RICHARD BATH
Senior Team Leader Planning, Hunter Central Coast Region
Regional Operations

Enclosure: Attachment A

ATTACHMENT A: OEH REVIEW OF BENGALLA CONTINUATION PROJECT - STATEMENT OF ENVIRONMENTAL EFFECTS – SECTION 96 MODIFICATION TO SSD-5170 (MOD 1)

The Office of Environment and Heritage (OEH) has reviewed the Statement of Environmental Effects (SEE) (Hansen Bailey, 2015) for the Bengalla Mine Continuation Project MOD 1 in relation to potential impacts on Aboriginal cultural heritage, flooding and threatened biodiversity. Detailed comments are provided below.

ABORIGINAL CULTURAL HERITAGE ASSESSMENT

OEH has reviewed the 'Aboriginal Archaeological Due Diligence Assessment' prepared by AECOM Australia Pty Ltd (AECOM, 2015). This report was commissioned by Hanson Bailey Environmental Consultants (Hansen Bailey) on behalf of Bengalla Mining Company, June 2015 and presented in Appendix G of the SEE. The due diligence assessment was undertaken to inform the assessment of additional lands required to facilitate the construction of clean water diversions levees within the project area, with respect to any additional impacts to Aboriginal cultural heritage sites and values.

OEH notes that the proponent has undertaken to temporarily fence off the three AHIMS registered sites (# 37-2-1492, # 37-2-2896, # 37-2-2897) that are within the project area with a minimum buffer of five metres to exclude the sites from any potential impacts. OEH supports this mitigation measure. OEH further notes that the previously recorded site (# 37-2-1468) and the newly recorded sites (BM-AS27-15 & BM-IA24-15 {AHIMS numbers not yet allocated}) are to be salvaged in accordance with the Bengalla Mine Aboriginal Cultural Heritage Management Plan. OEH supports this management strategy and has no additional recommendations or concerns with respect to Aboriginal cultural heritage and the proposed development consent modification.

FLOODING AND FLOODPLAIN MANAGEMENT

OEH has reviewed the SEE, particularly Appendix D (WRM Water & Environment Pty Ltd, 2015) for flooding and floodplain management issues for this project. Following this review it appears that the works proposed with this modification primarily impact water management within the mine area itself. There are no adverse impacts on surface flooding of private properties as a result of the proposed development, based on the information provided in the SEE. Nevertheless, the proponent must ensure that all works do not produce adverse flooding impacts on adjacent or downstream properties. This includes the location and construction of levees for clean water runoff.

There is significant information within the SEE with regard to water management on-site, including the location and construction of water management infrastructure and controlled mine water releases to the Hunter River. OEH has assumed that the relevant government agencies, including but not limited to the NSW Office of Water / Department of Primary Industries have been consulted as part of this development consent modification process.

The proponent is responsible for flood emergency management procedures within its own site. The occupation and use of this site should place no extra requirements on the State Emergency Services for assistance during flood times.

In its current form, the floodplain management components of the proposal are generally supported by OEH.

Recommended Conditions of Consent

1. The proponent is to ensure that there are no adverse flooding impacts on property owned by entities other than the proponent as a result of the works on this site.
2. The occupation and use of this site should place no extra requirements on the State Emergency Services for assistance during flood times.

THREATENED SPECIES

OEH reviewed the Ecological Assessment (Cumberland Ecology, 2015) presented in Appendix C of the SEE to ascertain likely impacts of the project on threatened biodiversity. The proposed modification would result in the clearance of 9.1 hectares (ha) of land to construct two clean water diversion levees in the Dry Creek catchment. About 6.1 ha of the new development footprint is White Box – Yellow Box – Blakey's Red Gum Grassy Woodland Endangered Ecological Community (Box-Gum Woodland EEC). The levee is anticipated to result in the permanent clearing of about 1.3 ha of Box-Gum Woodland EEC (0.6 ha woodland and 0.7 ha derived native grassland) and the temporary clearing of 4.9 ha of Box-Gum Woodland EEC (2.2 ha woodland and 2.7 ha derived native grassland). The proposal is to rehabilitate the area of temporary disturbance back to its pre-MOD 1 vegetation state. OEH notes that the assessment of this additional clearing of EEC vegetation was considered 'not significant' and thus no biodiversity offset was proposed. The assessment was anecdotal, and not based on the 'NSW Biodiversity Offsets Policy for Major Projects' (Office of Environment and Heritage, 2014a).

Under the current biodiversity offsets policy the scale of any likely impact on threatened biodiversity is measured by the Framework for Biodiversity Assessment (Office of Environment and Heritage, 2014b). This requires an assessment of a project using the current BioBanking Credit Calculator and the provision of specific data in a 'Biodiversity Assessment Report'. OEH's main role is to ensure that the policy is implemented correctly. Presently the policy is in a transitional period in which the consent authority, in this case the Department of Planning and Environment can apply some flexibility in the way that this policy is implemented (Office of Environment and Heritage, 2014a: p. 5).

In reviewing the proposal under the current biodiversity offsetting policy notes that the assessment has not followed the requirements of this policy; particularly that no BioBanking credit calculator assessment was provided, that few of the requirements of the Biodiversity Assessment Report have been met, and that no biodiversity offset have been proposed. These are described below.

BioBanking credit calculator assessment and offset requirement

The SEE does not contain a BioBank assessment of the proposed impact using the BioBanking Assessment Methodology (Office of Environment and Heritage, 2014). This is required under current biodiversity offsetting policy. Therefore, OEH ran this calculator using available details provided in the SEE and assuming values for missing data (see Biodiversity Assessment Report Requirements below). Based on this assessment the clearance of 9.07 ha of vegetation (all assigned to HU 701) generates 139 ecosystem credits to be offset. Thus the project has a biodiversity offset requirement.

Biodiversity Assessment Report requirements

The Ecological Assessment does not fully comply with the requirements of the Biodiversity Assessment Report requirements as required under the Framework for Biodiversity Assessment. Those requirements are summarised in Appendix 7 of the Framework for Biodiversity Assessment (Office of Environment and Heritage, 2014b). Most of the missing Biodiversity Assessment Report data requirements stem from the absence of a BioBanking Credit Calculator assessment and the absence of any proposed biodiversity offset in the SEE. Other missing components relate to an overly-brief summary of threatened species survey effort for the development site (e.g. no maps of survey sites relied on by this assessment), no consideration of survey effort in relation to OEH threatened species survey guidelines (Department of Environment and Conservation, 2004; Department of Environment and Climate Change, 2009), and no maps of local threatened species survey results. The proponent needs to provide this data in order for OEH to complete its required assessment.

Biodiversity offset requirements

The proponent's assessment of the proposed clearing of 6.1 ha of Box-Gum Woodland EEC was considered to be 'not significant' after running the '7-part test'. This appears to be the main reason why no biodiversity offset was proposed for this modification. Instead the following three mitigation measures are proposed:

1. mature tree retention, where possible, in the 5.56 ha buffer zone
2. pre-clearance assessments by a suitably-qualified ecologist and clearance supervision to 'soft-fell' habitat trees and translocate any animals resident in the clearing area
3. revegetation of the buffer zone to pre-MOD 1 vegetation condition; use of erosion, sedimentation and pollution control measures during and after construction (Cumberland Ecology, 2015: p. 6.1).

As described in the Framework for Biodiversity Assessment, there are some circumstances where a biodiversity offset is not required (Office of Environment and Heritage, 2014b: Table 4). OEH acknowledges that the scale of the impact is small, however, it is the nature and quality of the vegetation and threatened species habitat effected that determines offsetting obligations. However, in this instance all available data shows that an offset will be required. As such OEH would have expected the SEE to address the provision of biodiversity offsets and/or compensatory measures under Section 6 'Impacts, Management and Mitigation' and Chapter 5 of the Ecology Study.

OEH notes that the proposed impact area (both clearing and buffer zone) on vegetation is approximately 9 ha of vegetation (including about 6.1 ha of Box-Gum Woodland). This generated approximately 139 ecosystem credits. The current market value of ecosystem credits in the Hunter Region is around \$2,000 per credit and as such the biodiversity value of the 9 ha of native vegetation to be removed is in the order of \$278,000. OEH recommends that the proponent should either retire the appropriate biodiversity credits or provide appropriate supplementary measures, equivalent to the biodiversity value that is being lost, to either a site specific environmental project that benefits threatened species or towards an action(s) that benefits a likely potential threatened species (as listed under OEH's 'Saving Our Species' program) (Office of Environment and Heritage, 2014a). To determine the exact number of biodiversity credits the proposed impact area would generate, OEH recommends that the proposal be assessed under the BioBanking Assessment Methodology (Office of Environment and Heritage 2014c) using the full complement of required data collected from the site. If the proponent does not wish to undertake such an initiative then OEH would expect a suitable biodiversity offset (commensurate to the impact site) be set aside and managed in perpetuity under one of the following conservation mechanisms:

- the establishment of BioBanking sites with BioBanking agreements under the *Threatened Species Conservation Act 1995*
- the dedication of land under the *National Parks and Wildlife Act 1974*
- a Trust Agreement under the *Nature Conservation Trust Act 2001*
- a Planning Agreement under s93F of the *Environmental Assessment and Planning Act 1979*.

Note: OEH no longer supports public positive covenant under s88E of the *Conveyancing Act 1919* or Conservation Agreements under the *National Parks and Wildlife Act 1974* as appropriate conservation mechanisms to secure and/or manage biodiversity offsets.

Conclusion

OEH is not able to provide recommended conditions for approval for threatened biodiversity for this project until deficiencies in the SEE are addressed.

References:

- AECOM Australia Pty Ltd. (2015). *Aboriginal Archaeological Due Diligence Assessment*. June 2015. AECOM Australia Pty Ltd, Brisbane. http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7221
- Cumberland Ecology (2015) *Bengalla Mine – Section 96(2) Modification to SSD-5170. Ecological Assessment for Hansen Bailey*. June 2015. Cumberland Ecology, Carlingford Court. http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7221
- Department of Environment and Conservation (2004) *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities. Working Draft*. November 2004. NSW Department of Environment and Conservation, Sydney. www.environment.nsw.gov.au/surveys/BiodiversitySurveyGuidelinesDraft.htm

Department of Environment and Climate Change (2009) *Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna – Amphibians*. April 2009. Department of Environment and Climate Change (NSW), Sydney. www.environment.nsw.gov.au/resources/threatenedspecies/09213amphibians.pdf

Hansen Bailey (2015) *Bengalla Mine: Development Consent Modification Statement of Environmental Effects for Bengalla Mining Company Pty Limited*. August 2015. Hansen Bailey, Singleton. http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7221

Office of Environment and Heritage (2014a) *NSW Biodiversity Offsets Policy for Major Projects*. September 2014. NSW Office of Environment and Heritage, Sydney www.environment.nsw.gov.au/resources/biodiversity/140672biopolicy.pdf

Office of Environment and Heritage (2014b) *Framework for Biodiversity Assessment*. September 2014. NSW Office of Environment and Heritage, Sydney www.environment.nsw.gov.au/resources/biodiversity/140675fba.pdf

Office of Environment and Heritage (2014c) *BioBanking Assessment Methodology* 2014. September 2014. Office of Environment and Heritage, Sydney. www.environment.nsw.gov.au/biobanking/bbreview.htm.

WRM Water & Environment Pty Ltd (2015) *Bengalla Modification Surface Water Impact Assessment*. 11 August 2015. WRM Water & Environment Pty Ltd, Spring Hill. http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7221

OEH – SEPTEMBER 2015

