



**BENGALLA MINE**

# **Development Consent MOD4 Residual Issues**

for  
**Bengalla Mining Company**  
July 2018

# **BENGALLA MINE DEVELOPMENT CONSENT MODIFICATION 4**

## **RESIDUAL ISSUES**

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*For:*

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## 1 INTRODUCTION

### 1.1 BACKGROUND

Bengalla Mining Company Pty Limited (BMC) operates the Bengalla Mine (Bengalla) in the Upper Hunter Valley of NSW. Bengalla is situated approximately 130 km north-west of Newcastle and 4 km west of the township of Muswellbrook.

On 3 March 2015, BMC was granted a State Significant Development Consent (SSD-5170) under Division 4.1 of Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) by the Secretary of the Department of Planning and Environment (DPE). SSD-5170 authorises continued coal mining operations until 2039. BMC has since been granted three modifications to SSD-5170; Modification 1 in 2015 (MOD1) (Hansen Bailey, 2015), and Modifications 2 and 3 in 2016.

On 13 December 2017, BMC made an application for a fourth modification to SSD-5170 under Section 96(2) of the EP&A Act (MOD 4). This application was supported by the 'Bengalla Mine Development Consent Modification 4 Statement of Environmental Effects' (MOD 4 SEE) (Hansen Bailey, 2017).

The MOD 4 SEE was placed on public exhibition from 18 January to 2 February 2018. A total of eight submissions from regulatory agencies were received following the public exhibition. No other submissions were received.

BMC provided the '*Bengalla Mine Development Consent Modification 4 Response to Submission*' (RTS) (Hansen Bailey, 2018) on 24 May 2018. DPE provided the RTS to regulators for comment.

This residual matters report responds to comments from regulators in response to the RTS.

### 1.2 DOCUMENT STRUCTURE

This residual matters report is structured as follows:

- **Section 2** summarises the submissions received from stakeholders;
- **Section 3** provides a comprehensive response to the issues raised;
- **Section 4** lists the abbreviations used within this residual matters report; and
- **Section 5** provides a list of reference documents for this residual matters report.

Each submission received in relation to MOD 4 is available through the DPE Major Projects website [http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=9001](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=9001).

## **2 SUBMISSION SUMMARY**

Responses to the RTS were received from the following agencies:

- DPE;
- Muswellbrook Shire Council (MSC);
- Environment Protection Authority (EPA);
- Office of Environment and Heritage (OEH);
- DPE – Division of Resources and Geoscience (DRG); and
- Department of Industry Lands and Water Division (Dol-Water).

Responses to issues are included in this residual matters report.

### 3 RESPONSE TO SUBMISSIONS

This section responds to the submissions as identified in **Section 2**. A response to issues identified by each regulatory agency is provided below.

#### 3.1 DEPARTMENT OF PLANNING AND ENVIRONMENT

##### 3.1.1 Email 18 June

###### Issue

“Could you please clarify that landowners identified in the development consent as 156 and 161, have been acquired?”

###### Response

Properties 156 and 161 have not been acquired by BMC.

Property 156 is owned by NJ & RJ Ellis and listed in Table 1 of Development Consent SSD-5170 (i.e. right to acquisition upon request by BMC).

Property 161 is owned by RB & SA Parkinson is not listed in Table 1 or 2 of SSD-5170. It is listed in BMC’s in Table 3 of SSD-5170 (i.e. “... The Applicant is only required to provide additional mitigation for this property if these rights are no longer available under the development consent for the Mt Pleasant mine).”

###### Issue

“Please clarify why landowners 126 and 186 appear once in the current consent noise criteria (ie Table 4) but in the Acoustic Assessment and revised table from the EPA they are subdivided further (ie 126N). Please confirm the noise criteria for these landholders and/or properties.”

###### Response

Bengalla in its assessments in the EIS (Hansen Bailey, 2013), MOD1 and MOD4 has provided predictions for the three residences on property 126 and two residences on property 186 (since 2013).

In the past, EPA and DPE have (for reasons unknown to BMC) only attributed one criterion to the properties. On this occasion, EPA has included the predictions for individual residences.

The relevant criteria suggested by EPA (as reproduced in the following table) are consistent with the noise impact assessment (Bridges Acoustics, 2018):

Receiver	Day (Laeq 15 min)	Evening (Laeq 15 min)	Night (Laeq 15 min)	Night (La1 1 min)
126N	38	38	38	45
126C	37	37	37	45
126S	36	36	36	45
186N	37	37	35	45
186S	36	36	35	45

### **Issue**

*“Can you also provide more detailed comment on the EPA’s revised noise criteria including comment on any implications for existing landowners with existing mitigation or acquisition rights.”*

### **Response**

As indicated in the RTS, the EPA’s criteria are consistent with the noise impact assessment.

In relation to the tables in Schedule 3 of SSD-5170 this results in:

- Table 1: no changes to zone of affectation.
- Table 2: no changes to zone of affectation.
- Table 3: minor changes to zone of management in accordance with the Voluntary land Acquisition Policy (VLAMP) (DPE, 2014) criteria of 3-5 dBA above project specific noise criteria of 35 dBA in west:
  - Amend ID ‘126’ to ‘126N’;
  - Remove ID 146 (max prediction 37 dBA);
  - Remove ID 156 (duplication in the original consent as already in Table 1);
  - Removal of ID 161 as it has been confirmed there is no residence since the EIS. The EIS previously indicated a prediction of >39 dBA at the “residence”). The 40 dBA contour does not exceed 25% of vacant contiguous property.
  - Addition of ID 180 (maximum prediction 38 dBa in MOD4, previously 37 dBA in EIS).

### **Issue**

*“Could you confirm that you will be providing a response to my email dated Friday 8 June?”*

### **Response**

See response in **Section 3.1.2.**

#### **3.1.2 Email 8 June 2018**

### **Issue 1 - Dry Creek East Dam – Liner**

*“The Surface Water Impact Assessment (SWIA) notes the following:*

*“To prevent potential interaction between mine water and the alluvium, the excavated storage area will be lined with approximately 600 mm of compacted clay liner, formed either of approximately 300 mm of material treated in situ and overlain by another approximately 300 mm of clay or approximately 600 mm of material placed in two layers.”*

*The figure provided in the RTS shows a single layer compacted clay liner for the general dam area and a 2 layer liner over the area within the alluvium. Is the figure just indicative of the 2 different methods described, or does this accurately depict the design of the liner over the alluvium?"*

**Response**

Both are correct. The alluvial soil was identified as brown-dark brown medium plasticity silty clay and this material is treated in-situ to become part of the liner approximately 300mm thick and then a further 300mm of clay material is placed for a total of approximately 600mm of material placed in two layers.

**Issue – External Water Demand**

*"The SEE states that "Compared with the results of MOD 1, the median (50th percentile) raw water requirement from an external source increases slightly from 1,530 ML/a to 1,575 ML/a" however the SWIA puts the increase at 1,589 ML/a. Can you please confirm which is correct?"*

**Response**

Second point of Section 8 (p59, rev G) of the Surface Water Impact Assessment (SWIA) (WSP, 2017) states 1,589 ML/a. This value is correct.

**Issue – Noise**

*"Can you please clarify between the Block ID and Owner ID numbers used in Tables 3 and 4 of the Acoustic Impact Assessment and the numbers used in the conditions of consent and map. The way this is presented is unclear."*

**Response**

The "Block ID" numbers correlate with individual lot and deposited plan numbers and are used as identifiers on the map and in the conditions of the consent.

"Owner ID" identifies the individual owners (one owner may own several blocks) and was used internally to group individual owners' land for considering contiguous (25%) assessments.

**Issue – Stockpiles**

*"Can you please confirm that material from enlarging ED1 and also from constructing Dry Creek Dam would be stockpiled in the area adjacent to ED1 (shown on the figures in the SEE) or in the main OEA, and used in future rehabilitation at the site? So only 2,500 cubic metres of material from ED1 would be stockpiled, but there would also be material from Dry Creek Dam as well (approximately 70,000 m2)?"*



## **Response**

The construction of ED1 will result in 2,500 m<sup>3</sup> of material approximately being stockpiled near ED1 (section 2.1.2 of the SEE). Approximately 450,000m<sup>3</sup> of clay for the lining of the Dry Creek realignment will be stored to the west of the active mining area within the Disturbance Boundary for a total area of approximately 70,000 m<sup>2</sup> in one or more locations (see Section 2.4.2 of the SEE). There will be no material stockpiled for Dry Creek East Dam.

## **3.2 MUSWELLBROOK SHIRE COUNCIL**

### **3.2.1 Dry Creek East Dam**

#### **Issue**

*“Council request that a condition be added to the revised Consent requiring the dam to be filled and the level checked on a regular basis for an adequate period of time to determine if the dam leaks water before it is incorporated into the mine water management system.”*

#### **Response**

BMC does not propose to fill Dry Creek East Dam prior to use. The Dry Creek East Dam has been designed appropriately by a reputable and qualified engineering company and will be constructed by a reputable and qualified contractor. This approach has been used successfully previously by BMC for all dams at Bengalla including dams prescribed by the Dams Safety Committee. Filling of the dam prior to use is not appropriate and if required will in BMC’s view be for very limited benefit.

BMC will include the Dry Creek East Dam within its existing water management system (to be documented in a revised WMP). The monitoring program will include flow meter recordings to capture pumped inflow and outflow, a shallow groundwater piezometer as described in **Section 3.3**, surface water monitoring program, and regular visual inspections as part of water management system inspections of dams at Bengalla.

### **3.2.2 Land Shape and Microrelief**

#### **Issue**

*Council references a meeting with Bengalla in March 2018 in relation to this issue to “... discuss the inclusion of micro relief in mine rehabilitation post October 2015 (the commencement of the current Consent). The meeting was constructive and Bengalla are currently working with Council to provide an improved land shape in the relevant area within the rehabilitation. As of the 7<sup>th</sup> June 2018 Bengalla provided a plan for an improved land shape that was accepted by Council. We are now looking forward to Bengalla advising state regulators and providing a schedule for the implementation of the plan.*

*The other matters raised by Council were adequately addressed”.*

## **Response**

BMC looks forward to providing updates to its Rehabilitation Management Plan in accordance with SSD-5170 in relation to its final landform, when finalised.

### **3.2.3 Tree Planting Along Public Roads**

#### **Issue**

*“Council notes that the RTS has been used as an opportunity to change the existing Schedule 3, Conditions 40 and 41. ... In March 2018 Bengalla asked Council to support an extension of time for 12 months for this requirement. This request was taken to a Council meeting and Council agreed to the request ... This remains Council’s position and would not support an open, unclear, time frame for these works. ... ”*

#### **Response**

BMC agree to leave the condition as it stands in the current consent (SSD–5170 Modification 3).

### **3.3 DOI WATER**

Dol Water’s letter dated 13 June 2018 states *“The department has reviewed the response to submissions and has no further comment in relation to the proposal. The following recommended conditions are provided for consideration in assessment of the proposal:*

- 1 That the proponent be required to install a shallow alluvial monitoring bore down gradient of the new Dry Creek East Dam and include in the Water Management Plan.*
- 2 That the proponent be required to update the Water Management Plan in consultation with Dol Water.”*

BMC concurs with these recommendations and will install the shallow alluvial bore in a suitable location as soon as practical. The Water Management Plan will be updated in consultation with Dol Water.

### **3.4 ENVIRONMENT PROTECTION AUTHORITY**

The EPA’s letter dated 12 June 2018 accepts BMC’s RTS with minor amendments to the Environmental Protection Licence conditions.

These proposed changes are acceptable to BMC.

### **3.5 DPE DIVISION OF RESOURCES AND GEOSCIENCE**

The DRG’s letter dated 12 June 2018 states *“The Division is satisfied that the Proponent has adequately addresses the issues raised in the submission dated 30 January 2018.”*

Noted.

### 3.6 OFFICE OF ENVIRONMENT AND HERITAGE

The OEH's letter of 18 June 2018 states "... OEH is satisfied that the flood impacts of the proposal will be confined to mine lands, provided that the integrity of the dams is maintained. The design and integrity of the upgraded Stage Discharge Dam (ED1) should be assessed by the NSW Dam Safety Committee."

Noted.

\* \* \*

for

**HANSEN BAILEY**



Dianne Munro  
Principal

#### 4 ABBREVIATIONS

Term	Definition
µg	Microgram
AQIA	Air Quality Impact Assessment
Bengalla	Bengalla Mine
BMC	Bengalla Mining Company Pty Limited
dBA	Expression of the relative loudness of sounds in air as perceived by the human ear
DPE	Department of Planning and Environment
Dol - Water	Department of Industry Lands and Water Division
DRG	Division of Resources and Geoscience
EIS	Environmental Impact Assessment
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPL	Environmental Protection Licence
km	kilometre
m	Metre
MAC	Mt Arthur Coal
MACH Energy	MACH Energy Australia Pty Ltd
Mangoola	Mangoola Mine
mm	Millimetre
ML/a	Megalitre per annum
MSC	Muswellbrook Shire Council
MTP	Mount Pleasant Operation
NSW	New South Wales
OEA	Overburden Emplacement Area
OEH	Office of Environment and Heritage
Proponent	Bengalla Mining Company
Residual Matters Report	This report
RTS	Response to Submissions
SWIA	Surface Water Impact Assessment
SSD	State Significant Development
ZOA	Zone of Affection
VLAMP	Voluntary Land and Acquisition and Mitigation Policy (DPE, 2014)
WMP	Water Management Plan

## 5 REFERENCES

- Bridges Acoustics (2017) *Acoustic Impact Assessment. Prepared for the Bengalla Development Consent Modification 4 Statement of Environmental Effects.*
- Hansen Bailey (2013), *Continuation of Bengalla Mine Environmental Impact Statement prepared for Bengalla Mining Company Pty Limited.*
- Hansen Bailey (2015), *Bengalla Mine Development Consent Modification Statement of Environmental Effects (SSD-5170 Modification 1).*
- Hansen Bailey (2017), *Bengalla Development Consent Modification 4 Statement of Environmental Effects.*
- Hansen Bailey (2018), *Bengalla Mine Development Consent Modification 4 Response to Submissions.*
- Todoroski Air Sciences (2013), *Continuation of Bengalla Mine Air Quality and Greenhouse Gas Impact Assessment.*
- Todoroski Air Sciences (2017c), *Air Quality Assessment – Bengalla Mine Development Consent Modification 4.*
- WSP Australia Pty Ltd (2017), *Continuation of Bengalla Mine Modification 4, Surface Water Impact Assessment.*