



Bengalla Continuation Project Relocatable Infrastructure Modification (SSD 5170 MOD 3)

Environmental Assessment Report

Section 96(2) of the *Environmental Planning and Assessment Act 1979*

1. BACKGROUND

Bengalla Coal Mine (Bengalla) is located approximately 4 kilometres (km) west of Muswellbrook in the Upper Hunter Valley (see **Figure 1**). Bengalla is owned and operated by the Bengalla Mining Company Pty Limited (BMC), a joint venture between New Hope Corporation Limited, Wesfarmers Limited, Taiwan Power Company and Mitsui Coal Holdings Pty Limited.



Figure 1: Location of Bengalla Coal Mine

Bengalla is an open cut, multi-seam operation that uses both dragline and truck and shovel mining methods to extract thermal coal for export. All coal is processed at the on-site Coal Handling and Preparation Plant (CHPP) and transported by rail to the Port of Newcastle using a private rail loading facility and rail loop that connects to the Muswellbrook - Ulan railway line.

Bengalla was originally approved under DA 211/93 by the then Minister for Urban Affairs and Planning on 7 August 1995. Mining operations commenced in 1998 and are approved to continue until 2017. A State significant development application (SSD 5170) was lodged in August 2013 to extend the mine life for a further 24 years. On 3 March 2015, the Secretary, as delegate for the Minister of Planning, granted this development consent for the Bengalla Continuation Project. BMC surrendered DA211/93 in accordance with a condition of consent for SSD 5170 on 22 December 2016.

In December 2015, SSD 5170 was modified to allow changes to the mine's surface water management infrastructure and relocation of an explosives storage facility. A second modification to SSD 5170 in July 2016 approved changes to the height of the main Overburden Emplacement Area and construction of a gravel access road from Wybong Road to the Dry Creek Diversion Project Construction Site Office.

Under SSD 5170, as modified, BMC is currently approved to:

- extract and/or process up to 15 million tonnes per annum of run of mine coal until 2039;
- upgrade and augment existing infrastructure at the mine, including the CHPP, stockpiles and rail loading facility;
- temporarily divert Dry Creek;
- realign the Bengalla Link Road; and
- progressively rehabilitate the site.

The area surrounding Bengalla is dominated by mining, agricultural and rural residential land uses. There are a number of operating and proposed coal mines nearby, including the existing Mt Arthur Coal Mine to the south and the Mt Pleasant Coal Mine (MTP) to the north, which is approved but not yet operating.

MTP was acquired by MACH Energy Australia Pty Limited (MACH) in January 2016. MTP's development consent (DA 92/97) provides for the proposed construction of rail and conveyor facilities within BMC's current disturbance boundary.

2. PROPOSED MODIFICATION

BMC is proposing a third modification to SSD 5170, under section 96(2) of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The purpose of the modification is to allow for flexibility in the placement of particular approved surface infrastructure within the approved disturbance boundary.

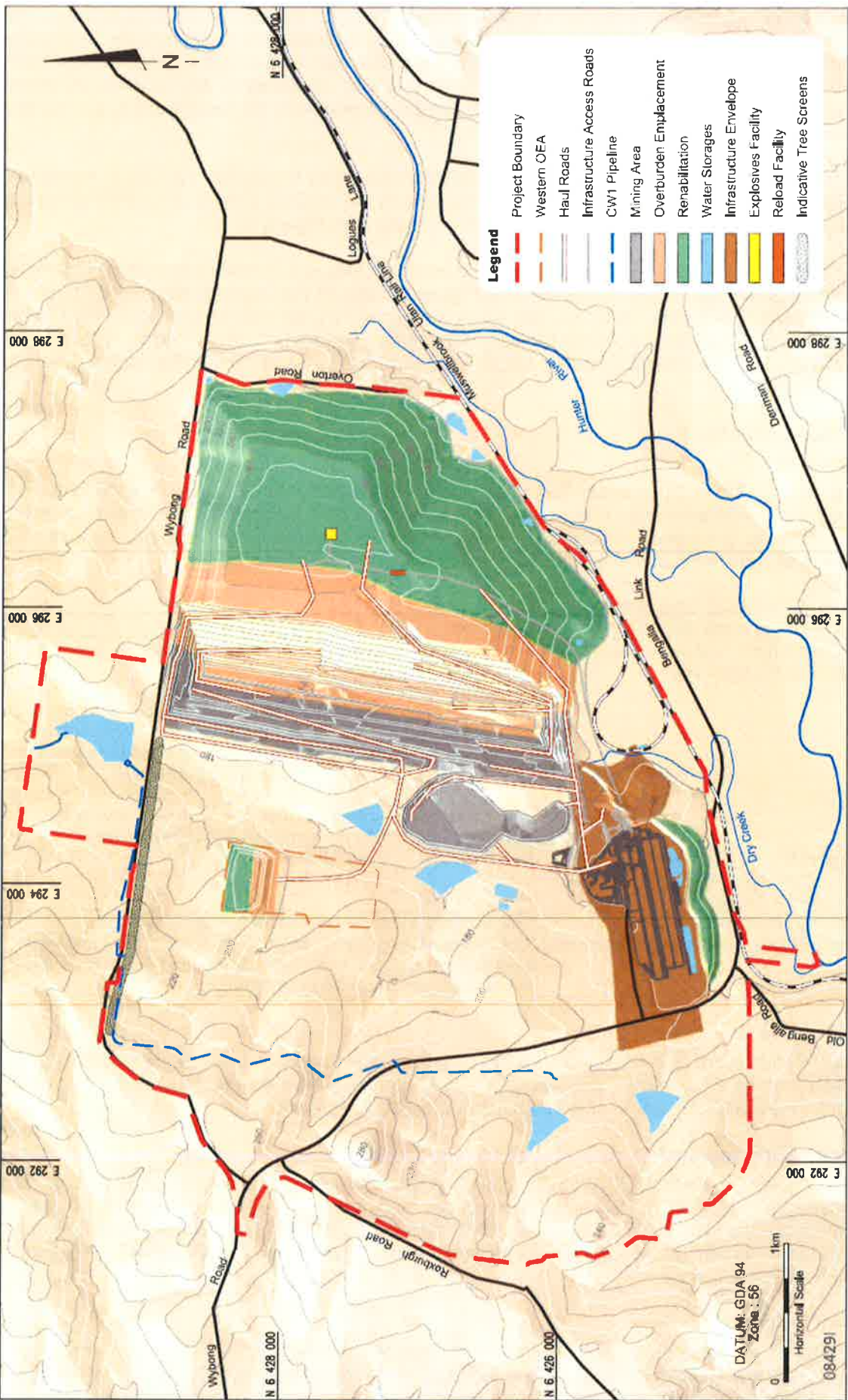
The proposed modification would provide flexibility for BMC to relocate surface infrastructure as mining progresses, as follows:

- explosives storage facility and reload facility;
- Hunter River pipeline; and
- temporary topsoil stockpiles.

The proposed modification is described further in the Statement of Environmental Effects (SEE) (see **Appendix A**) which accompanied the application. There is no proposed change to any other aspect of approved mining operations, including mining methods, mining areas, hours of operation or extraction quantities. The relocated infrastructure would still be located within the approved disturbance boundary and no additional ground disturbance or vegetation clearing would be required beyond that already approved.

The 2013 Environmental Impact Statement (2013 EIS) for SSD 5170 set out BMC's intention of allowing flexibility to relocate infrastructure within the disturbance boundary as mining progressed, including topsoil stockpiles and water storage infrastructure (see **Figure 2**). The 2013 EIS also identified and assessed the explosives storage facility and reload facility as being located on the main Overburden Emplacement Area.

In preparation for mining, topsoil is extracted and stored in temporary stockpiles until required for rehabilitation. Due to the temporary nature of these stockpiles, the 2013 EIS did not specify fixed locations (see **Figure 2**). Similarly, the 2013 EIS did not specify fixed locations for water supply or storage infrastructure, including the Hunter River pipeline, as it would be necessary to relocate the pipeline as mining progresses and water storage areas change (see **Figure 2**).



BENGALLA MINE

Conceptual Year 4 Mine Plan

Figure 2: 2013 EIS Conceptual Year 4 Mine Plan

Conceptual plans included in the Mod 1 and Mod 2 SEEs (see **Figure 3**) showed fixed locations for the Hunter River pipeline and temporary topsoil stockpiles and an envelope of land for the explosives storage and reload facilities. This allowed for the relocation of these facilities within the envelope, until mining required relocation to the main Overburden Emplacement Area. However, this fixed envelope is no longer suitable as Australian Standard '2187.1 – 1998 Explosives – Storage, Transport and Use' (Explosives AS) requires minimum setbacks for such facilities from other infrastructure. Development of the satellite pit (see **Figure 3**) is proposed to take place inside the minimum setback distance.

The proposed modification would once again provide BMC with the ability to relocate the topsoil stockpiles, Hunter River pipeline and explosives storage and reload facilities to any location within the currently approved disturbance boundary, in consequence to the progression of mining (see **Figure 4**).

Additionally, the MTP consent allows rail facilities to be built within BMC's disturbance boundary, traversing the existing explosives storage facility envelope (see **Figure 3**). MACH has recently advised BMC that it intends to construct and operate the rail spur which would also impact on the minimum setback requirement under the Explosives AS. Mod 3 would provide flexibility within the approved disturbance boundary to relocate the explosives storage facility and reload facility, due either to advancement of mining or the establishment of the MTP rail facilities.

3. STATUTORY CONTEXT

3.1 Section 96(2)

SSD 5170 was granted in March 2015 under Part 4, Division 4.1 of the EP&A Act. Section 96 of the EP&A Act allows for a development consent to be modified by the consent authority that granted the original consent. The modification must be considered in accordance with section 96(2) of the EP&A Act which requires the consent authority to be satisfied that matters are addressed; as set out in **Table 1** below.

Table 1: Section 96(2) Mandatory Considerations

Section 96(2) Matters for Consideration	Comment
The modified development must be substantially the same as that originally approved	<p>The modification occurs entirely within the currently approved disturbance boundary.</p> <p>The modification would not change any of the core elements of the project such as mining, processing or transportation methods, total resource, production rates, operational hours, pit dimensions, employee numbers or overall intensity.</p> <p>The Department considers that the modified development would be substantially the same as originally approved.</p>
Notified the application in accordance with the <i>Environmental Planning and Assessment Regulation 2000</i> (EP&A Regulation)	See Section 4 – Consultation
Consideration of any submissions made	See Sections 5 and 6 – Submissions and Assessment
Consideration of relevant environmental planning instruments	The relevant provisions of the applicable environmental planning instruments have been considered as part of the assessment and separately in the SEE.

3.2 Other Licences

Mining activities at Bengalla are also regulated under an Environmental Protection Licence (EPL 6538) granted under the *Protection of the Environment Operations Act 1997* and six mining leases (MLs) and three mining sub-leases from Mt Pleasant's ML 1645, all granted under the *Mining Act 1992*.

3.3 Commonwealth Approval

The mine has an existing approval (2012/6378) under the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The proposed modification would not result in any disturbance beyond the currently approved disturbance boundary. BMC did not refer the modification to the Commonwealth Department of the Environment and Energy as it considers that it would not significantly impact on matters of national environmental significance.

3.4 Approval Authority

The Minister for Planning is the approval authority for the application. However, under the Minister's delegation of 16 February 2015, the Director Resource Assessments may determine the application, as no public objections were received, Council did not object to the proposal and BMC reported no political donations.



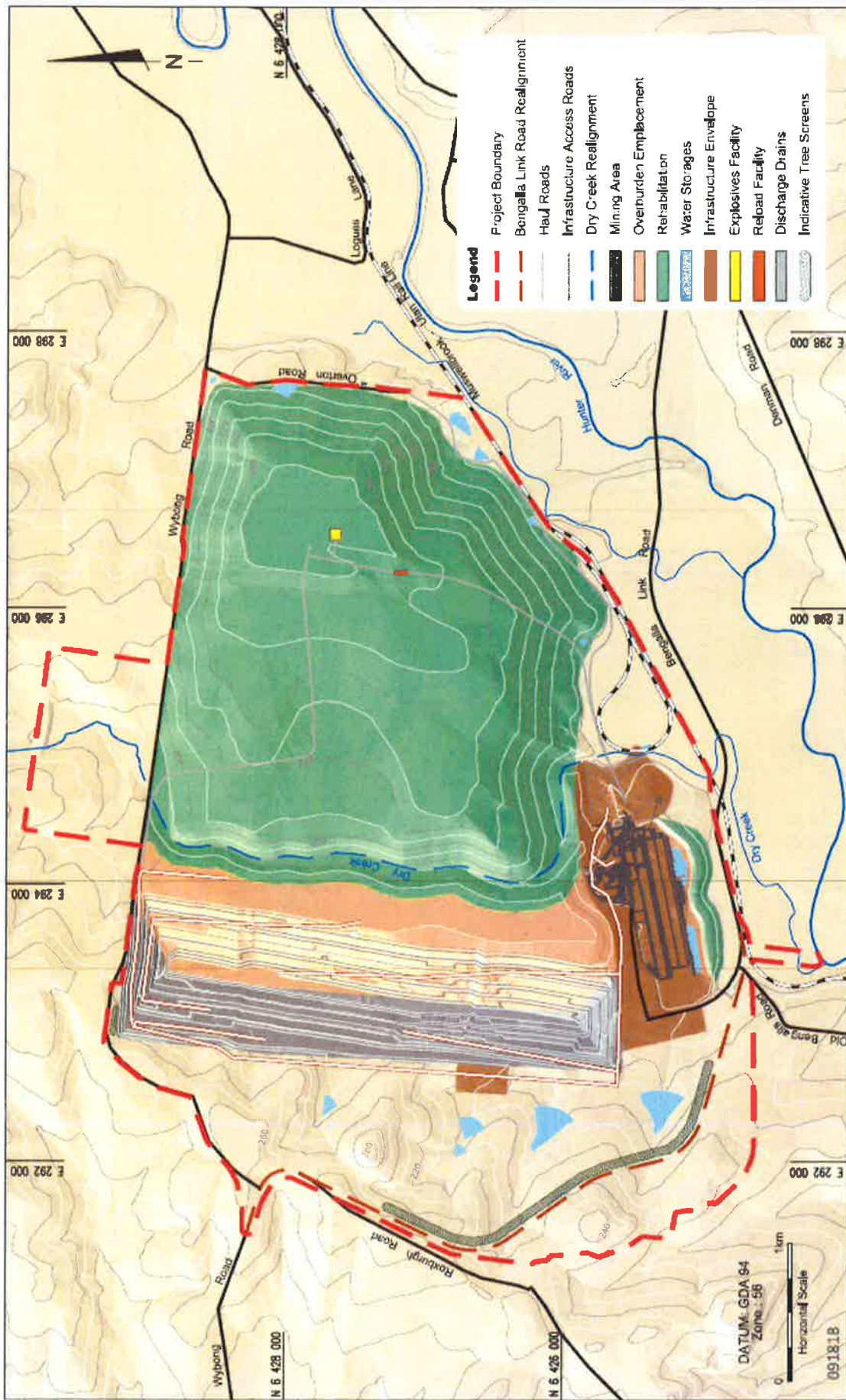
BENGALLA MINE

Modification Overview - Year 4 Mine Plan (MOD2)

Figure 3: MOD 2 Conceptual Year 4 Mine Plan

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Conceptual Year 24 Mine Plan

Figure 4: Conceptual Mine Plan Year 24

3.5 Environmental Planning Instruments

A number of environmental planning instruments (EPIs) apply to the modification, including the:

- *State Environmental Planning Policy (State and Regional Development) 2011*;
- *State Environmental Planning Policy (Mining, Petroleum and Extractive Industries)*;
- *State Environmental Planning Policy (Hazardous and Offensive Development)*;
- *Muswellbrook Local Environmental Plan 2009*; and
- *Hunter Regional Plan 2016*.

The Department has considered the modification against the relevant provisions of these EPIs, as well as BMC's consideration of these matters in its SEE. Based on this assessment, the Department considers that the proposed development can be undertaken in a manner that is generally consistent with the aims, objectives and provisions of the EPIs.

4. CONSULTATION

Under clause 118 of the EP&A Regulation, the Secretary is required to make the modification application publicly available. Consequently, the Department:

- placed a public exhibition notice in the *Muswellbrook Chronicle* and *Hunter Valley News*;
- made the application and accompanying SEE publicly available from 6 October until 24 October 2016 at its Information Centre, Muswellbrook Shire Council and the Nature Conservation Council; and
- placed the application and SEE on its website.

The Department is satisfied that the notification process met the requirements of the EP&A Act and the EP&A Regulation.

The Department notes that BMC also conducted its own consultation with key stakeholders prior to submitting the modification application. As summarised in the SEE, BMC held meetings with key government agencies and its Community Consultative Committee (CCC) to both inform and seek advice on the proposed modification.

5. SUBMISSIONS

The Department received five submissions from government agencies and one submission from a neighbouring mining company (see **Appendix B**). One confidential community submission was received.

BMC provided a Response to Submissions (RTS) document to address concerns raised in these seven submissions (see **Appendix C**). A summary of the issues raised and BMC's response is provided below.

Department of Primary Industries and the **Division of Resources and Energy** of the Department of Industry had no objections or comments on the proposed modification.

The Office of Environment and Heritage (OEH) commented that the modification involves changes within the already approved disturbance footprint and therefore likely impacts on Aboriginal cultural heritage, threatened biodiversity and flooding have already been considered and addressed. Consequently OEH did not provide any further comment.

The **Environment Protection Authority** (EPA) had no objections to the proposal and was satisfied that proposal's air, noise and water quality impacts can be managed under the mine's existing EPL with no variation required.

Muswellbrook Shire Council had no objections to the proposed modification and did not provide any recommendations.

Mach Energy stated that it has no objections to the modification providing there is no impediment to mining operations at MTP. This includes shared mining lease boundaries and the proposed construction of rail and conveyor facilities adjacent to BMC operations.

Community Submission

One member of the local community made a submission commenting on but not objecting to the proposed modification. The submitter questioned whether BMC is required to undertake air quality and noise monitoring and publish the results. The submission included a request that the Department impose requirements as a condition of consent to make monitoring data publicly available.

BMC stated in its RTS that SSD 5170 and EPL 6538 both require monitoring of air quality, noise, blasting and surface water impacts. Results from environmental monitoring are made available monthly on BMC's website. Monitoring data is also discussed in quarterly CCC meetings and in the Annual Reviews which are required under existing conditions of consent.

6. ASSESSMENT

The Department has assessed the merits of the proposed modification in accordance with the relevant objects and requirements of the EP&A Act. In assessing the proposal's merits, the Department has considered the:

- modification application and accompanying SEE;
- relevant content of the 2013 EIS and previous SEEs for Mod 1 and Mod 2;
- submissions received and RTS;
- existing conditions of consent; and
- relevant environmental planning instruments, policies and guidelines.

The Department considers the key issues associated with the proposed modification are hazards, visual, biodiversity and Aboriginal heritage impacts.

6.1 Hazards

The explosives storage and reload facilities would continue to be required as part of active mining operations. BMC is seeking flexibility in the location of these approved facilities within the mine's existing approved disturbance boundary. There would be no changes to the storage capacity, type or use of explosives required.

Bengalla currently holds two licences to store explosives and associated materials, being 07-100151-001 and XSTR100151. The relocated facilities would be constructed in accordance with the Explosives AS and relevant NSW Occupational Health and Safety regulations. The ability to relocate the explosives storage and reload facilities would allow BMC to meet the Explosives AS requirements, accommodate the proposed MTP rail facilities and efficiently progress its mining.

An existing suite of consent conditions places a number of restrictions on blasting activities, including requiring the development and implementation of a Blast Management Plan. The Department considers the requirements of these conditions, combined with the Explosives AS and explosives storage licences, adequately manage any likely impacts from the location and use of the explosives storage and reload facilities.

6.2 Visual Impacts

The SEE considered potential visual impacts from relocating the temporary topsoil stockpiles and the explosives storage and reload facilities within the disturbance boundary. The Hunter River water pipeline would have negligible visual impacts wherever it is located.

6.2.1 Topsoil Stockpiles

BMC is proposing to relocate topsoil stockpiles to any location within its approved disturbance boundary, as required. The 2013 EIS included criteria for managing topsoil stockpiles as follows:

- locating stockpiles on areas of flat topography or along contours to prevent erosion and away from trafficable areas or mining areas, trees and watercourses;
- limiting stockpiles to a maximum height of 3 metres; and
- revegetating topsoil that would be stockpiled for longer than 3 months.

The above criteria would further limit the very minor visual impacts from the stockpiles in addition to managing potential erosion and dust impacts.

6.2.2 Explosives Storage Facility and Reload Facility

The 2013 EIS included a landscape and visual assessment that considered the explosives storage and reload facilities being located on the main Overburden Emplacement Area. This assessment noted that views of each location would be minimal due to screening effects, scale, distance and the mitigation measures proposed by BMC (see **Table 3**). Mitigation employed by BMC involves 10 metre height restrictions for the buildings, vegetation screening at appropriate distances (for safety reasons) and micro-land shaping. Further mitigation outlined by BMC includes the use of muted green and beige paint for infrastructure and non-reflective and textured buildings to avoid glare. Conditions 36-41 of Schedule 3 of the consent specify mitigation of visual impacts and requires preparation and implementation of a Visual Impact Mitigation Plan. Vegetation screens along the western project boundary were also proposed through Mod 1 and should further mitigate visual impacts from the west.

Table 3: Visual Assessment for the Explosives Storage Facility and Reload Facility

Visually Sensitive Location Assessment Point	Visually Sensitive Location Assessment Result
PM2 – View Place, representative of views from the north	Explosives storage facility and reload facility shielded by shoulder of main Overburden Emplacement Area
PM3 – Ironbark Ridge estate, representative of views from the east	Explosives storage facility and reload facility visible, however mitigation would reduce impacts
PM5 – Denman Road, representative of views from the south and west	Explosives storage facility and reload facility visible, but unlikely to have significant impact due to distance (8 km) and small scale of the facilities

The location of the explosives storage and reload facilities on the main Overburden Emplacement Area is the same as was originally approved. Adequate mitigation is in place to address visual impacts from locations on the western side of the mine. Topsoil stockpiles would be temporary and mitigation to reduce visual impacts has been proposed. Existing conditions in the development consent address management of visual impacts.

The Department has reviewed the potential visual impacts from relocating the topsoil stockpiles and the explosives storage and reload facilities and considers that there is unlikely to be any increased impact to sensitive receivers. Impacts from realigning the Hunter River pipeline are insignificant.

6.3 Biodiversity Impacts

BMC's proposal for flexibility in locating minor infrastructure within the approved disturbance boundary may have potential to impact on biodiversity values.

The 2013 EIS included a biodiversity assessment which considered vegetation communities within the proposed disturbance boundary (see **Figure 5**). Due to historical grazing, the site was considered to have been largely degraded. The impact of clearing 881 ha of vegetation, including 535 ha of Box Gum Woodland was assessed. The current consent (conditions 26 - 30 of Schedule 3) requires preparation of a Biodiversity Management Plan, Offset Strategy and lodgement of a conservation bond. The vegetation clearing is to be compensated with an offset of 6,215 ha of high quality vegetation.

Advice provided by OEH for this modification acknowledges that biodiversity impacts have been addressed in the previous assessment and compensated for under existing offsets. Consequently the Department considers that relocating the topsoil stockpiles, Hunter River pipeline and explosives storage and reload facilities at suitable locations within the disturbance boundary would have no additional impacts on biodiversity.

6.4 Aboriginal Heritage Impacts

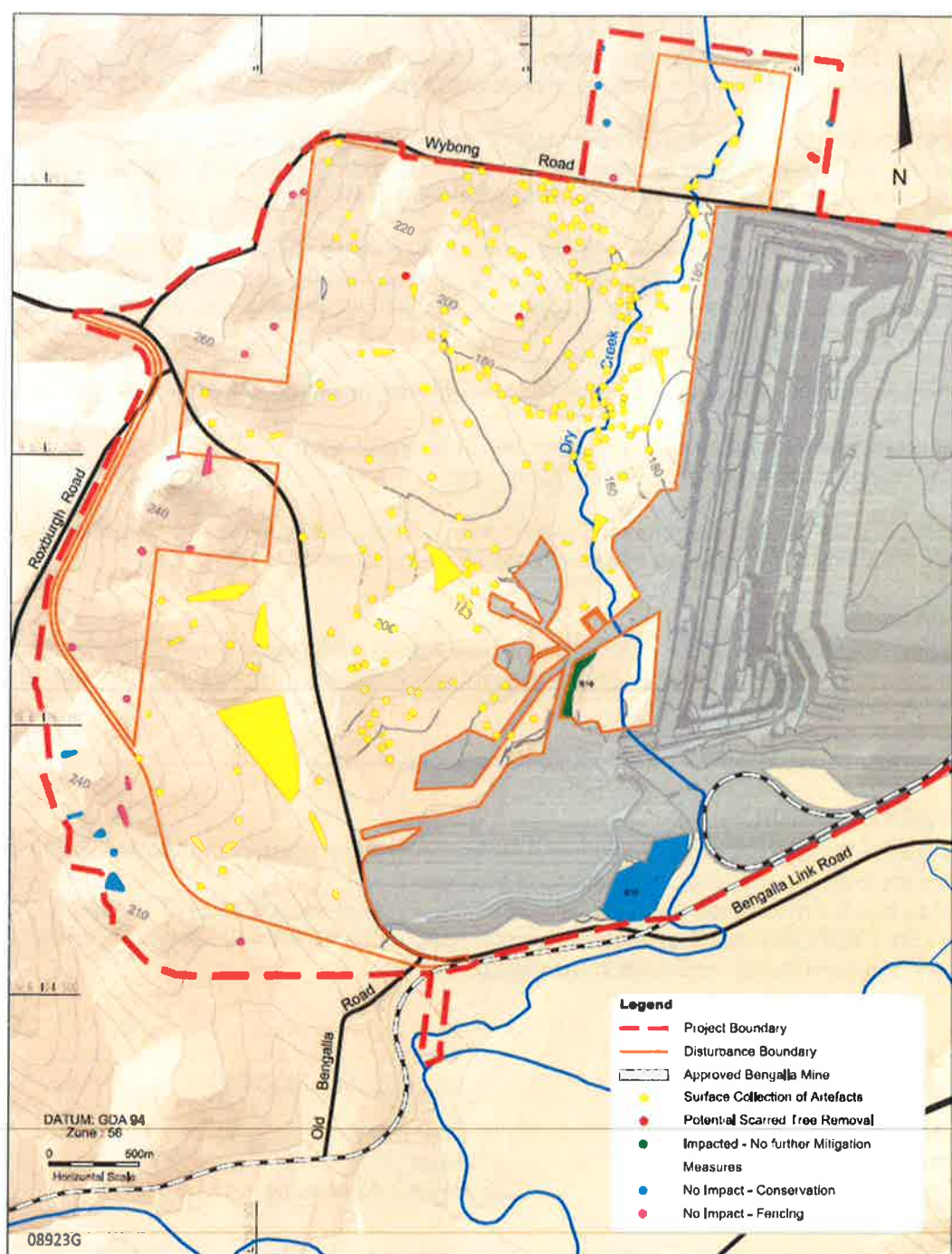
The 2013 EIS provided an assessment of Aboriginal heritage. In total, 289 Aboriginal heritage sites were identified within the current disturbance boundary (see **Figure 6**). It was estimated that 263 sites would be disturbed by the project. Of those, 259 were considered to be of low archaeological significance. The four remaining sites comprised an artefact scatter and three potential scarred trees of moderate archaeological sensitivity. BMC notes that an arborist inspection in August 2012 concluded that the scarring on the trees was a result of natural causes. Nonetheless, BMC committed to the salvage and management of the artefact scatter and scarred trees in consultation with the local Aboriginal community.

OEH recognised that the impacts on Aboriginal heritage sites has been addressed through the 2013 assessment. Conditions 31 and 32 of Schedule 3 of the consent require BMC to develop and implement Aboriginal Heritage and Historic Heritage Management Plans. The Aboriginal Heritage Management Plan includes a requirement for BMC to put in place procedures for the salvage and management of heritage sites within the disturbance area and for ongoing consultation with OEH and Aboriginal stakeholders.

Given the previous assessment, requirements for BMC to manage heritage sites and OEH's advice, the Department considers that the modification would not cause any additional heritage impacts.

6.5 Other impacts

Other potential impacts are not predicted to be significant, and the Department is satisfied that they can be controlled, mitigated or managed through existing conditions of consent (see **Table 4**).



BENGALLA MINE



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ENVIRONMENTAL CONSULTANTS

Management of Aboriginal Archaeological Sites

Figure 6: Management of Aboriginal Archaeological Sites, 2013 EIS

Table 4: Other Impacts

Issue	Consideration and Assessment	Recommendation
Water	<ul style="list-style-type: none"> The proposed relocation of the Hunter River pipeline would lead to no change to the volumes or rates of water to be extracted via the pipeline or to the offtake point from the Hunter River. EPA had no concerns with relocating the pipeline. OEH is satisfied that the risk of flooding would not increase. It is unlikely there would be any material changes to existing approved surface water management at Bengalla. 	No changes to the existing conditions of consent required.

7. CONCLUSION

The Department has completed its assessment of the proposal, including consideration of potential environmental, social and economic impacts and the relevant requirements of the EP&A Act.

BMC is seeking flexibility in locating the approved Hunter River pipeline, explosives storage and reload facilities and temporary topsoil stockpiles within Bengalla's existing disturbance boundary, to allow for the westward progression of mining and proposed infrastructure development at MTP.

The Department considers the proposal would not significantly change the scale or environmental impacts of approved activities at Bengalla. The proposed changes are reasonable and would allow BMC to manage mining operations in accordance with the Explosives AS without altering the approved project layout, disturbance boundary or final landform.

The Department is satisfied that, subject to existing management measures, the proposed modification would result in:

- no material change to currently approved operations at Bengalla; and
- no material change to approved environmental impacts.

The Department is satisfied that the proposed modification is in the public interest, and should be approved, subject to minor administrative changes to existing conditions of consent.

8. CONDITIONS

The Department has prepared a Notice of Modification (see **Appendix D**) to the existing development consent. It has also prepared a consolidated development consent which reflects the overall consent as it is proposed to be modified (see **Appendix E**).

BMC has reviewed and accepted the recommended conditions of consent.

9. RECOMMENDATION

It is RECOMMENDED that the Director Resource Assessments, as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report;
- **determines** that the modification request falls within the scope of section 96(2) of the EP&A Act;
- **approves** the modification application under section 96(2) of the EP&A Act, subject to conditions; and
- **signs** the attached notice of modification (**Appendix D**).



Melanie Hollis 23.12.16
Planning Officer
Resource Assessments



Howard Reed 23.12.16
Director
Resource Assessments

APPENDIX A: STATEMENT OF ENVIRONMENTAL EFFECTS

See the Department's website at www.majorprojects.planning.nsw.gov.au

APPENDIX B: SUBMISSIONS

See the Department's website at www.majorprojects.planning.nsw.gov.au

APPENDIX C: RESPONSE TO SUBMISSIONS

See the Department's website at www.majorprojects.planning.nsw.gov.au

APPENDIX D: NOTICE OF MODIFICATION

APPENDIX E: CONSOLIDATED CONSENT
