

Enquiries  
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7 February 2022

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**Team Leader**  
**Energy, Resources and Industry**  
**Planning and Assessment**

Dear Joe

**Bengalla SSD-5170 Modification 5**  
**Muswellbrook Shire Council comments on Modification Report**

Reference is made to the Modification (MOD) Report for Bengalla MOD5 prepared by James Bailey and Associates dated 26 November 2021.

Bengalla Mine (Bengalla) is approved by Development Consent SSD-5170 granted under the (then) Division 4.1 of Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). SSD-5170 (as modified) authorises the continuation of open cut coal mining and associated activities at Bengalla until 28 February 2039.

Bengalla Mining Company Pty Ltd (BMC) operates Bengalla and are seeking a modification to SSD-5170 to facilitate the following activities:

- Operation of a mobile rock crushing facility and ancillary equipment, and the use of that crushed rock at Bengalla;
- Geotechnical investigations in connection with any activities approved under SSD-5170 from time to time;
- Prospecting operations (including exploration drilling) in accordance with BMC's mining leases issued under the *Mining Act 1992*;
- Realignment of the Western Diversion Levee within the Disturbance Boundary;
- Enlargement of the Run Of Mine (ROM) coal stockpile located adjacent to the ROM dump hopper from 40,000 tonnes(t) to 150,000 t approximate maximum capacity;
- Upgrade/widening of an existing haul road (Southern Endwall Road) adjacent to the southern visual bund, which may require removal of part of the visual bund (to be replaced by an equivalent measure);
- Disposal of tyres in-pit; and
- Minor administrative changes to conditions of SSD-5170.

Council's submission is as follows. Requests and recommendations are shown in underlined text.

### 1.0 Waste Management

It is noted that waste tyre management options are currently limited for mining operations in NSW and across Australia, due to a general lack of available recycling technologies and transportation impediments (DPIE, 2021).

Tyre Stewardship Australia has received a federal government grant to deliver a business case that can be used to make a positive shift in improving off-the-road (OTR) tyres in the

mining industry. In January 2022 the following OTR tyre importers committed to joining the voluntary Tyre Product Stewardship Scheme (the Scheme) to help find sustainable outcomes for OTR tyres that have reached their end-of-life in Australia:

- Bearcat;
- Bridgestone Mining Solutions;
- Goodyear;
- Kal Tire;
- Michelin; and
- Yokohama

The Scheme has meant that consumers will ensure that tyre retailers are considering a circular economy for end-of-life tyres, contributing to a sustainable society.

OTR tyres are a valuable resource that is being wasted by disposing in-pit. Increasing the recovery rate can lead to new investments, new markets and new jobs. For these reasons, Council requests that the BMC identify purchasing opportunities from signatories of the Scheme to drive solutions for the sustainable management, recycling and productive use of end-of-life tyres. This is Council's preferred option.

Where the first two priorities of the *Waste Avoidance and Resource Recovery Act 2001* are not feasible, waste disposal in an environmentally responsible manner should only then be considered. In relation to tyre waste management, it is therefore recommended that:

- The approval authority require that the BMC undertake a review of available recycling for end of life heavy mining plant tyres at recurrent intervals throughout the remaining life of the mine.
- A limitation be imposed on the number of, and origin of tyres that can be stockpiled and disposed of at the premises in any one year.
- Only waste tyres generated at the premises may be disposed of on the subject site.
- Tyres should be placed as deep as possible, but not directly on the pit or emplacement floor. Any associated placement activities should ensure that waste tyres do not impede saturated aquifers or compromise the stability of the consolidated final landform.
- The proponent develop an internal 'Mine Tyre Disposal Procedure' (Procedure) that provides a standard work practice for the disposal of waste tyres and guidance on the identification and environmental management of risks associated with the disposal of waste tyres. The Procedure should include a standard work practice for storage, disposal preparation and method, hazard and assessment, waste tyre tracking, monitoring and reporting.
- Temporary tyre stockpile areas should be subject to an ongoing and robust monitoring and management program to ensure that stored tyres do not provide an environment that promotes harbourage of vermin or encourages mosquito breeding. Appropriate mitigation and management measures should be put in place in respect of potential stockpile fires.
- Monitoring of disposed waste tyres should occur as part of establishment of the final landform for rehabilitation. Monitoring should assess the final shaped grade and stability prior to topsoil placement to ensure no up-rising of waste tyres has occurred, and that at least twenty metres of emplacement material is over the deposited waste tyre area.
- The proponent should maintain a comprehensive inventory of all waste heavy vehicle tyres buried on site, including within overburden emplacement area. The following key information should be included: serial number, type/make and quantity, disposal date,

surveyed coordinates of the disposal site area (Easting, Northing, relative level), and summary description of the disposal area.

- i. The proponent should undertake a preliminary Environmental Risk Assessments (RA) prior to the selection of an appropriate disposal area for the waste heavy vehicle tyres. The RA to consider the potential unacceptable risk of soil; sediment; groundwater or surface water contamination; as well as proximity to coal rejects and potentially acid forming material.
- j. A range of measures should be implemented for the purpose of extending the operational lifespan of mining equipment tyres and minimising disposal rates. These measures could include road design, mining equipment speed limits, regular tyre inspection and maintenance, repair of tyres as far as practicable without impacting safe operation of equipment, and consideration of other beneficial use on-site where practical (e.g reuse as bunding, for intersection construction etc).
- k. Waste tyre disposal information should be reported in the Bengalla Mine Annual Review.
- l. The existing groundwater monitoring program should assist in identifying any potential contamination from waste tyre disposal and prompt remediation actions.

Additionally, the following information should be clarified:

- a. Quantity of tyres currently stockpiled and historically buried at the mine (where applicable).
- b. How existing stockpiled tyres will be managed e.g disposal of these tyres should be staggered to optimise disposal locations and volumes.

## **2.0 Mobile Rock Crushing Facility**

Section 1.3.1 of the Modification Report states that the 'crushed rock may be used for .... rock lining of drains in rehabilitation'. Leading practice of mine rehabilitation is that the area of rehabilitation is environmentally sustainable. This requires the landform to be stable and free from long-term erosion.

It is expected that the crushed rock used in the rock lining of drains of rehabilitation will accommodate natural erosive processes and be resistant to weathering in the long-term.

## **3.0 Visual Impact**

The modification includes the enlargement of ROM coal stockpile height by approximately 10 m. Section 6.3 of the Modification Report includes a 'Visual Long Sections' diagram from two key locations along Bengalla Link Road and Denman Road.

Recommend that two photos are provided (one each from Bengalla Link Road and Denman Road). The photos should label key approved aspects of Bengalla (e.g. current stockpiles and associated infrastructure and active mining area) and the location of the proposed ROM coal stockpiles.

## **4.0 Tree Plantings Along Public Roads**

Council acknowledges that due to physical constraints within the relevant public road reserves, BMC is seeking amendments to Condition 40 and 41 of Schedule 3 of SSD-5170 to provide flexibility in relation to the required visual tree screens. It is also acknowledged that some of the tree plantings have already occurred.

Council does not have any objections to the wording of the inclusion of planting of trees where feasible 'to Council's written satisfaction' (partially covered by a Section 138 permit).

Council requests that the following information be provided to understand the status of works completed and the scope of works remaining:

1. A revised tree planting program which includes:
  - a) The locations of historic and planned tree plantings;
  - b) An 80% minimum survival rate commitment for the trees planted;
  - c) A description of where trees cannot be planted and why;
  - d) Typical cross sections of planting/bunding for any road section;
  - e) Plans showing overhead powerlines and other services; and
  - f) A works program indicating commencement date of plantings and timeline.

Additionally, it is expected any future planting will be undertaken:

1. Generally, as described in Section 5.3 of the AECOM Tree Screen Plan (June, 2017) using a species list described in Section 5 of the same;
2. In accordance with a Section 138 permit, prepared prior to any works within Council's road corridor; and
3. In consideration of Over Size Over Mass vehicle widths and turning circles of long vehicles (up to 90m wind turbine blades) for road access.

Council have previously requested that BMC use resources planned to be committed to the Denman Road tree plantings to be used for riparian trees on the Hunter River on Bengalla owned land to provide a visual benefit from Denman Road, which is the intent of the condition. Council requests an update on this request.

## 5.0 Other

Clarify the Disturbance Boundary shown in Figure 6. Update to be consistent with Disturbance Boundary shown in Figure 2 (if required).

Council staff appreciates the opportunity to comment and would be pleased to provide additional information if requested. Should you need to discuss the above, please contact Theresa Folpp, Development Compliance Officer on 02 6549 3700 or email [council@muswellbrook.nsw.gov.au](mailto:council@muswellbrook.nsw.gov.au).

Yours faithfully



Sharon Pope  
**Executive Manager Environment and Planning**

## References

- DPIE (2021) *Tarrawonga Coal Mine Modification 9 – Waste Tyre Disposal Planning Secretary's Assessment Report*