

Bengalla Coal Mine

[Application pursuant to Part 4 of the
Environmental Planning and Assessment Act 1979]

COUNCIL SUBMISSION



**muswellbrook
shire council**

The Application

1. By Application dated 17 December 2012 (the **Application**), Bengalla Mining Company Pty Limited (the **Proponent**) seeks, pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (the **Act**), a new development, approval having the effect of continuing the Bengalla Open-Cut Coal Mine (the **Project**).

Submissions in summary form

2. Council does not support the Application and notes that:
 - (a) The Project, taken individually and in aggregation with other proposals requiring road closures and road realignments will have a substantial impact on traffic efficiency in the local government area;
 - (b) The Project falls well short of 'best practice' insofar as final landform and rehabilitation is concerned. The Project fails to provide adequate micro relief of its overburden emplacement and proposes a deep final landform void;
 - (c) The Project would have an unacceptable impact on the provision of community services; and
 - (d) The Project would contribute to particulate matter in the Upper Hunter air shed in circumstances where the air shed is at capacity insofar as the National guideline is concerned. The Project makes no sufficient attempt to manage dust with best practice techniques.

For all the above reasons, Council submits that the Application should be refused.

Local roads

Background

3. In 1997, Council adopted a mining-related road strategy for the Shire known as the Western Roads Strategy. The document was developed in response to increasing requests from the coal industry for substantial road closures and realignments. The document was developed to strategically coordinate the orderly reconfiguration of the Shire's rural road network to meet the traffic efficiency and safety needs of all road users including the coal industry – which was located then, as now, substantially west of the New England Highway. The document was funded by those industry participants seeking network closures or realignments at the time.
4. It is important to note that each of the coal mining developments in the Shire is accessed by a local road. These roads include: Thomas Mitchell Drive, Bengalla Link Road, Wybong Road, Coal Road, and Muscle Creek Road. Some of these roads were purpose built¹ and others evolved from former rural roads².
5. In addition, there is increasing coal related traffic on local roads not used for primary access to coal mines. Edderton Road, which links coal mining developments in the

¹ Bengalla Link Road and parts of Thomas Mitchell Drive, Coal Road (and Muswellbrook Coal Road).

² Wybong Road, Thomas Mitchell Drive, Muscle Creek Road.

Shire with the Golden Highway and the Mount Thorley Industrial Estate, is one such road. The Bell and Market street over-dimensioned vehicle bypass of the National highway is another.

Road closures

6. While the Application refers to the "realignment" of Bengalla Link Road, the Proponent does not, in fact, propose a realignment at all (a process which realigns the road with its road reserve) but rather a road closure and the gazettal of a new road. The distinction is important because while an application under section 138 of the *Roads Act* 1993 (the **Roads Act**) must be applied consistently with any planning approval pursuant to planning law, an Application under Part 4 of the *Roads Act*, for a road closure, does not. It is the subject of a separate consultative and statutory process. The Minister or the Planning Assessment Commission does not have power to prejudge an Application the Parliament intended as the subject of a separate administrative process.
7. Council notes that it will be the consent authority for any road closure and accordingly, does not propose to comment on the merit or otherwise of the proposal to close a section of Bengalla Link Road. Council notes, however, that any approval by the Minister or the Planning Assessment Commission must:
 - (a) Have a pre-condition that the Road Act application for road closure be approved in substantially the same terms as any planning approval; and
 - (b) Must not seek to prejudge that separate statutory exercise.
8. Council notes that it has indicated to the Proponent that Council is unlikely to consider a Road Act application for the closure of a road until a mine affected road network study for the Shire is completed so that the cumulative effect of mine related closures can be understood. The study is unlikely to be concluded before April 2014. Council anticipates that the study will not support the realignment of the Bengalla Link Road but, rather, the construction of a new road crossing east of the Bengalla overburden emplacement.

Community services

9. Council notes that in Hunter Valley Energy Coal's (HVEC) application for expansion of the Mt Arthur coal mine, it noted³ that:

The potential cumulative impacts on the local region are likely to include:

 - [(a)] likely significant strains on health services, in particular hospitals;
 - [(b)] contribution to strains on the existing childcare services; and
 - [(c)] potential pressures on existing primary education services.
10. HVEC was right to make those concessions concerning health services. In the intervening period, the Hunter New England Local Health District (HNELHD) has confirmed that poor population health presentation statistics at Muswellbrook Hospital are partly because of grossly inadequate health service availability in the Muswellbrook area. Those poor population health statistics include:

³ See p. 12.55 of the EA for the proposed modification.

- (a) In "the period 2007 to 2009, 0-35 year-old people resident in the Muswellbrook postcode had higher rates of emergency department presentations for both asthma and overall respiratory illness than the remainder of the [HNELHD] and Sydney"⁴;
- (b) "For rates of asthma presentations, residents in the Muswellbrook postcode ranked highest among people aged less than 35 years of age"⁵;
- (c) "Muswellbrook area has high rates for emergency department presentation for asthma"⁶;
- (d) "Singleton and Muswellbrook local government areas have higher rates of cardiovascular disease hospital separations than all of the [HNELHD] or NSW"⁷.

Additionally, Muswellbrook has the highest preventable mortality rate in the Hunter and the emergency department at the hospital has been described by HNELHD as "grossly undersized". It is understood the floor area of the existing emergency department, for example, is 1/20th of the appropriate clinical standard.

- 11. At the time of the Mt Arthur approval, the Department of Planning accepted the impact but noted that royalty payments would be made to the State Government which was responsible for improving health services and health infrastructure in Muswellbrook and it was satisfied funds would flow as they were required. With respect, that finding was a convenient falsehood. The Department of Planning either knew or ought to have known that at the time the Department of Health had nothing in its budget, neither in its forward estimates, nor in its ten year planning to do anything to improve either health services or health infrastructure at Muswellbrook in any significant way.
- 12. Council submits that the health services strain will, in addition, be on general medical practitioner services, midwifery and other allied health services including ambulance services.
- 13. Council submits that the Project will have a deleterious effect on human health and should be refused. Council submits that assessed impacts on human health should not be "bundled up" with other considerations in a balancing exercise undertaken to assess public interest.
- 14. Council submits that HVEC's was also right to make concessions with respect to its assessed impact on childcare and early and primary education services. Council notes that it holds an independent Shire-wide children services study which confirms that assessment. Council subsidises childcare services, particularly costly out-of-hours day care services, in the Shire and the Project will place an unacceptable burden on Council and its community.

⁴ See p. 11, *Respiratory and cardiovascular diseases and cancer among residents in the Hunter New England Area Health Service*, NSW Health.

⁵ *Op Cit*, p.12.

⁶ *Op Cit*, p.11.

⁷ *Op Cit*, p.19.

Final landform

15. The Project includes a conceptual final landform that includes expansive planar slopes and a distinct lack of micro relief and natural appearance. This is particularly evident from the township of Muswellbrook. The landscape plan falls well short of best practice being deployed at neighbouring mines.
16. Council's mining rehabilitation policy encourages research into best practice rehabilitation techniques particularly in this field of emplacement geomorphology to attain stable and natural looking landforms.
17. Since developing the policy, a number of mining operations have employed software such as GeoFluv and others to develop much more natural looking plans. Such sophisticated landscape design and modelling should be employed by the proponent for final landform development so that mining rehabilitation strategies and management plans may be better informed and developed.
18. The eastern Overburden Emplacement Area (OEA) has been a concern to visual amenity since the mine was proposed in the early 1990s. Significant progress has been made over time since the mine has been approved, however it continues to be a large planar slope landscape feature that looms large on the view scapes from many parts of Muswellbrook.
19. The proposal on public exhibition is silent on the alleviation of the visual impact of the final landform from prominent vantage points. Council has a long held policy that rehabilitated landforms should look natural.
20. The proponent has provided Council with alternative landscape designs that may offer some relief, however these have not been placed on public exhibition.
21. Council is firmly of the view that it is a critical component of the social licence to operate that the community has confidence in the final landscape design put forward.
22. The final land form should include some additional visual relief that may have affect to any residence or vantage point to the east of the Hunter River or north or south of the operation. If necessary, the height of the emplacement should be increased but only for the purpose of providing a more natural final landform.

Final voids

23. The final landform includes a final landform void. No effort has been made to create a more natural looking void landscape. The Conceptual final landform appears as if there is no doubt that further mining approvals would be sought and granted.
24. Council submits that an achievable final landscape be provided for the case that no further mining is permitted following the end of this current proposed timeframe.
25. Council requests that in addition to the indicative detailed cross sections of the proposed void, indication of the depth of contained water, grade of all slopes approaching water body, catchment area, vegetation within the catchment area, areas of exclusion of stock, vehicles and pedestrians should also be provided.
26. Council submits that the proposed final landform voids represent a substantial and permanent environmental detriment and that the Project makes no sensible attempt

to minimise its use of voids and that it is legitimate to refuse development consent, in conjunction with other principles of public interest, for that reason.

Revegetation

27. Council submits that the landscape rehabilitation should be determined from the integration of potential land uses considering the proximity to road access, utilities, water supply, surrounding land uses, slope, aspect, outlook or visibility and elevation. The analysis of these factors should result in a series of sub-domains that meet the strategic objectives set out in Council's Land Use Development Strategy.
28. It is proposed that following the completion of rehabilitation, when the completion criteria is met, that the land be rezoned to appropriate land use zones in the Muswellbrook Local Environment Plan.
29. Any land that may be proposed for RU1 should be characterised by:
 - (a) having access to roads, water and utilities and the final land form must be of a suitable geomorphology to allow for functional association with adjacent high quality agricultural land; and
 - (b) infrastructure or utilities necessary to give effect to the land uses contemplated by the plan.
32. All land rehabilitation plantings should provide for biodiversity connectivity – that is no more than 3km spacing between minimum patches sizes of 10 hectares and interstitial tree plantings at 60-80m spacing (3-4 trees per hectare).
33. The planar slopes of the overburden emplacement facing the township of Muswellbrook should have a full coverage of high density tree plantings.
34. Council does not support the reconstruction of Dry Creek and notes that experience has shown the inability to reconstruct waterways to an appropriate standard.

Air quality

35. The National Environment Protection Measures, of no more than 50 micrograms per cubic metre of 10 micron particulate matter averaged over a 24 hour period (and having a target goal of no more than 5 breaches of that standard over a 12 month period) has already been exceeded in the Muswellbrook township and grossly exceeded in the Singleton township. The putative standard for the potentially more harmful 2.5 micron material has been exceeded substantially more in the Muswellbrook township.
36. The standard sets a limit beyond which experts agree that human population health is intolerably compromised.
37. The proposed development will contribute additional dust to the Upper Hunter air shed in circumstances where human health has already been intolerably compromised. The Proponent's air quality methodology avoids assessing the cumulative impact of its emissions on the tolerance threshold created by the standard in circumstances where the air shed has cumulatively exceeded the threshold. Council submits that the development will have an intolerable impact on human health and development approval should be refused.

38. Further, and in the alternative, Council submits that the Proponent's application falls well short of best practice dust management.
39. Further, Council notes that 12:00pm to 12:00am dust readings have typically been higher than daytime readings. A mix of different operational methods during the night together with air inversion compressions is likely to be contributing factors.
40. Council notes that the night mining close to townships is a challenging environment but notes that routine high levels of dust emission during the night offset by lower day emissions (so as to approach but not exceed the daily average) is not best practice.
41. Council notes that a condition requiring a maximum standard for night dust emissions be imposed.

Heritage

42. Council notes that a number of items of significant European heritage including Bengalla Homestead will have been inaccessible for a substantial period of time if the application is approved. Council submits that a detailed management and access plan for these items be drafted to the satisfaction of Council as part of any conditional approval.

Planning and regulatory capacity

43. While not being the consent authority, legislative change has repealed Part 3A, Council makes, on behalf of its community, comprehensive submissions as part of the approval process for all major developments – including recommending specific conditions of consent. Council's submission is invited by reason of statute and as consent authority for various attendant matters relating to the development.
44. The process is exhaustive of staff time. Council is not appropriately resourced to conduct the important task of evaluating complex and lengthy applications – particularly in the absence of cumulative data. Council receives no application fee to offset the cost of the assessment of mining applications and the direct cost of that process is therefore directly borne by the community.

15 October 2013

Matthew Sprott
Planning Officer – Mining Projects
NSW Department of Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Mr Sprott,

CONTINUATION OF BENGALLA MINE PROJECT (SSD-5170)

I refer to the Environmental Impact Statement (EIS) exhibited on the NSW Department of Planning & Infrastructure web site in relation to the Continuation of Bengalla Mine Project.

The project is a continuation to the Approved development DA 211/93 and includes increasing the run-of-mine (ROM) coal extraction for 24 years from 10.7Mtpa to a maximum of 15Mtpa, relocating a section of Bengalla Link Road at approximately year 15, relocation of Dry Creek via dams and pipework through rehabilitation areas, minor modification to the coal handling and processing infrastructure and stockpiles and construction of an out of mining over burden emplacement area to the west of dry creek for excess spoil materials. The mine is located approximately four kilometres west of Muswellbrook.

Hunter New England Population Health has reviewed the EIS report paying particular attention to the management of air quality, noise, water and issues which may have an impact on public health. The following points are discussed and should be considered in the approval process for this project:

Noise and Blasting

The EIS notes activities associated with construction, operation and maintenance of the project will be carried out up to 24 hours a day, seven days a week. Blasting will primarily be limited between the hours 7:00 am and 5:00 pm, six days a week Monday to Saturday with restricted blasting on Sundays between 10:00am and 3:00pm when blasting is located within 500m of the infrastructure area.

It is noted that there are a number of privately owned residences that will be negatively affected by noise if the continuation of the Bengalla Mine Project is approved.

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The EIS states that there are residences that will potentially be affected by noise and blasting which are currently owned by Bengalla Mine or other nearby mines. There are also a number of privately owned residential properties which are subject to acquisition by another mining company. It is unclear from the EIS whether these properties receive noise mitigation measures to protect current or future tenants.

It is recommended that the proponent clearly demonstrate that the community residing within the noise impacted area have been fully consulted and that the predicted noise levels and proposed mitigation measures are acceptable to them. A complaints mechanism for residents should be available and incorporated into the proposed noise monitoring program which enables both rapid assessment and corrective measures (if required) to be implemented.

Air Quality

The EIS predicts a deterioration in air quality across a wide area adjacent to the mine that will impact upon neighbours of the mine - including over 100 private properties. A total of 16 private receptors are predicted to experience exceedances of the maximum 24 hour average PM₁₀ criterion of 50 µg/m³ during the project life. The EIS proposes acquisition of properties subject to high PM₁₀ levels to address these exceedances. Acquisition of properties to achieve air quality goals is disruptive of the psychosocial fabric of the community and should be avoided where possible. If additional dust control measures are available and have not been included in the dispersion model, it is recommended that they are included before acquisition of properties is considered. Many mine owned properties will be greatly impacted by the proposal. It is unclear what impact this will have on human habitation and the viability of small residential clusters in the vicinity of the mine. Residents of mine-owned properties should be fully informed of the health risks of residing in houses where levels of particulates are above assessment criteria.

The emission factors underlying the PM10 modelling assume an emission factor of 85% for control of dust due to hauling on unsealed roads. We acknowledge this may be theoretically achievable but it exceeds current practice as described in the referenced Katestone report. Hence we recommend that a sensitivity analysis should be performed using a realistic range of inputs, e.g. 65-80%, to provide a plausible estimate of the development's potential impact.

We note the EIS assumes existing air quality criterion will be acceptable out to 24 years from the commencement of the project. Given that air quality criteria are likely to be revised downward within that time it would be reasonable to assume a more conservative air quality goal will be applied two decades hence.

Rainwater Tanks

The EIS does not provide comment on issues associated with drinking water, specifically for residents without a reticulated water supply and reliant on rain water tanks. A detailed analysis of issues associated with water quality from rainwater tanks at residences is recommended.

Hunter New England Population Health strongly supports the inclusion of measures to address impacts to drinking water quality from rainwater tanks. The installation of first flush systems for private rainwater tanks and implementing a tank cleaning program for properties affected by air quality impacts of the project are suggested strategies. The peak

reference document in Australia for information in relation to rainwater tanks is enHealth's *Guidance on use of rainwater tanks*, accessible at:
[http://www.health.gov.au/internet/main/publishing.nsf/Content/DD676FA1241CDD0DCA25787000076BCD/\\$File/enhealth-raintank.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/DD676FA1241CDD0DCA25787000076BCD/$File/enhealth-raintank.pdf)

It would be appropriate to utilise the above document and apply its recommendations and standards to rainwater tank systems within the vicinity of the mine in a proactive manner. A management system of taking complaints and rectifying issues identified should also be considered.


Social Impacts

The EIS considers a range of project specific and cumulative social impacts of mining in the area, including on demand for housing, education and health services, and to community identity and wellbeing. It is recommended that the proponent continue to monitor social impacts over time and make adjustments as necessary.

We note that while there is extensive description of the community and stakeholder engagement processes undertaken there is no information provided in the stakeholder engagement section of the EIS on the level of community satisfaction or dissatisfaction with the project.

If you require additional information, please contact Ms Cindy Gliddon, Environmental Health Officer, on 02 4924 6468.

Yours sincerely



Dr David Durrheim
Service Director - Health Protection
Hunter New England Population Health



25 October 2013

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CR2013/006515
MD

Director, Mining & Industry Projects
Department of Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Mr Matthew Sprott

DENMAN ROAD (MR209) & OTHER CLASSIFIED ROADS: EXHIBITION OF ENVIRONMENTAL IMPACT STATEMENT (SSD 5170), BENGALLA

Dear Mr Sprott,

I refer to a letter to Roads and Maritime Services dated 2 September 2013 from Hansen Bailey advising of the public exhibition of the Environmental Impact Statement (EIS) for the subject project. I apologise for the delay in responding.

Roads and Maritime Responsibilities

Transport for NSW and Roads and Maritime's primary interests are in the road network, traffic and broader transport issues. In particular, the efficiency and safety of the classified road network, the security of property assets and the integration of land use and transport.

In accordance with the *Roads Act 1993*, Roads and Maritime has powers in relation to road works, traffic control facilities, connections to roads and other works on the classified road network. Bengalla Link Road and Thomas Mitchell Drive are local roads. Denman Road (MR209), the New England Highway (HW9) and the Golden Highway (HW27) are classified (State) roads. Roads and Maritime concurrence is required for connections to these roads with Council consent, under Section 138 of the Act. The New England Highway is also part of the National Land Transport Network. Council is the roads authority for these roads and all other public roads in the area. Should road works be required on the classified (State) roads, Roads and Maritime would exercise the functions of roads authority under Sections 64 and 71 of the Act.

Roads and Maritime Response and Requirements

Roads and Maritime has reviewed the information provided, including the Traffic and Transport Impact Assessment (TTIA) prepared by DC Traffic Engineering Pty Ltd dated 10 July 2013. There are many inconsistencies and errors in the TTIA (too many to detail). However, the overall requirements for intersection improvements on the State road network, to accommodate the additional workforce traffic, are accepted.

Roads & Maritime Services

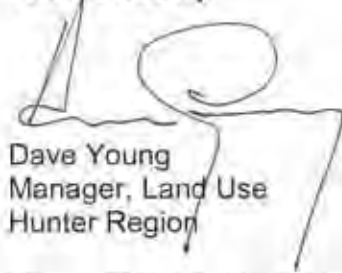
The intersection of Denman Road and Thomas Mitchell Drive is required to be upgraded to a seagull arrangement by BHP Billiton under Mt Arthur Coal Mine – Open Cut Consolidation Project Approval 09_0062 (Schedule 3, Condition 47) by the end of December 2019. Until this time, queuing and delays at the intersection are likely to worsen due to the subject proposal and the cumulative impacts of other existing and proposed mining activities in the area. The Department should consider requesting a contribution towards the cost of the intersection works by the proponent (Bengalla) and have the works brought forward. Bringing forward these works would significantly improve the performance and enhance road safety and the efficiency of the intersection for all users.

On the Minister's determination of this matter, it would be appreciated if a copy of the Project Approval is forwarded to RMS for record and / or action purposes.

Muswellbrook Shire Council should also be consulted regarding the adequacy of the TTIA.

Please contact me on 4924 0688 if you require further advice.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Dave Young', is written over a printed name and title. The signature is stylized and somewhat abstract.

Dave Young
Manager, Land Use
Hunter Region

Cc General Manager
Muswellbrook Shire Council

Ms Dorna Darab
Transport for NSW