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NSW GOVERNMENT | Health
Hunter New England
Local Health District

20 March 2015

Mr Matthew Sprott
Planning Officer Mining Projects
Department of Planning & Environment
GPO Box 39
Sydney NSW 2001

Dear Mr Sprott

MOUNT OWEN CONTINUED OPERATIONS PROJECT

I refer to the Environmental Impact Statement (EIS) exhibited on the NSW Department of Planning and Infrastructure website in relation to the Mount Owen Continued Operations Project.

The Mount Owen Mining Complex is located in the Upper Hunter Valley approximately 20 kilometres north-west of Singleton, 24 kilometres south-east of Muswellbrook, and just a few kilometres from the villages of Camberwell, Falbrook and Middle Falbrook.

Hunter New England Population Health has reviewed the EIS report paying particular attention to the management of air quality, noise, water and other priority issues which may have an impact on public health. The comments provided in this letter are contingent upon the EPA's confirmation that the modelling approach is appropriate. If this was found not to be the case, our findings would need to be considered in light of this. The following points are discussed and should be considered in the approval process for this project.

Air Quality
There is no evidence of a threshold below which exposure to particulate matter (PM) is not associated with health effects. Therefore, it is important that all reasonable and feasible measures are taken to minimise human exposure to PM, even where assessment criteria are met.

While the EIS uses an annual PM_{10} goal of 30 $\mu g/m^3$ for defining annual PM_{10} exceedances, this standard is currently under review and may not be applicable in the lifetime of this mine. On 29 April 2014, Environment Ministers signalled their intent to vary the Ambient Air Quality NEPM based on the latest scientific understanding of the health risks arising from airborne particle pollution. The preferred options for the draft annual average standards, that have been the subject of public consultation by the National Environment Protection Council, are 8 $\mu g/m^3$ for $PM_{2.5}$ and for PM_{10} consideration is being given to maintaining the status quo (no PM_{10} annual average standard) or adopting a new national standard of 20 $\mu g/ m^3$. It would be useful to consider the implications of these standards in planning for this project.

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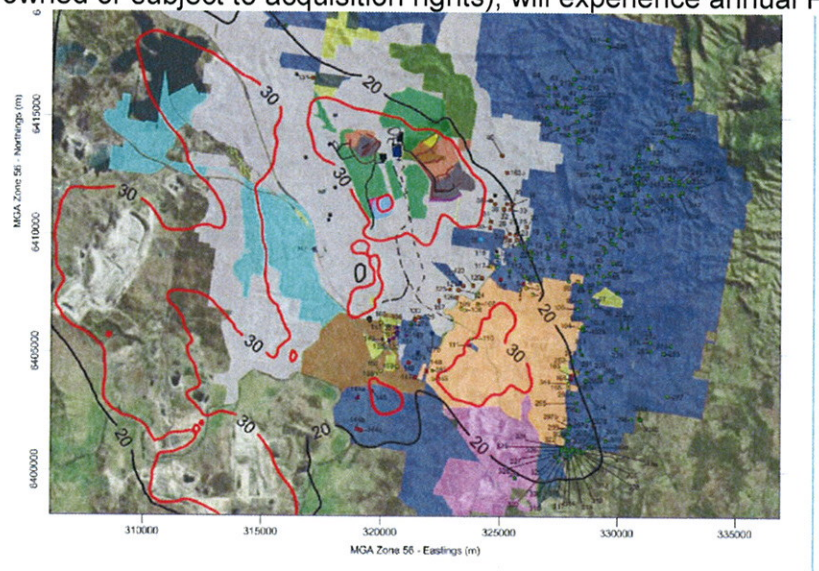
Figure 10.20 Predicted annual average $PM_{2.5}$ concentrations in Year 1 – Cumulative, on page 103 of Appendix 6 – Air Quality Assessment, identifies that many properties will be subject to annual average $PM_{2.5}$ levels above the proposed NEPM standard of 8 $\mu g/m^3$, however, the modelling suggests most of this impact will come from existing mines.

Figure 10.21 Predicted annual average PM_{10} concentrations in Year 1– Cumulative, page 104 identifies that many private residences will be subject to annual average PM_{10} levels above 20 $\mu g/m^3$. In excess of 30 residences in Wattle Ponds and to the north of Wattle Ponds (not mine owned or subject to acquisition rights), will experience annual PM_{10} levels above 20 $\mu g/m^3$.



Species:	Location:	Scenario:	Percentile:	Averaging Time:
PM_{10}	Mount Owen	Year 5 – Cumulative	N/A	Annual
Model Used:	**Units:**	**Guideline:**	**Met Data:**	**Plot:**
CALPUFF	$\mu g/m^3$	30	2011/2012	J. Barnett

Figure 10.25: Predicted annual average PM_{10} concentrations in Year 5 – Cumulative

Page 119 identifies six residences (2 with acquisition rights) that will experience greater than 5 exceedances of the PM_{10} 24 hour standard of 50$\mu g/ m^3$ annually.

In summary, this project will add further particulate emissions into an intensively mined area. In the light of the proposed changes to the NEPM standards, and in recognition that health impacts are reduced with lower exposure to PM, it would be prudent for the project to explore all reasonable and feasible measures to minimise human exposure.

Noise and Blasting

Environmental noise can have negative impacts on human health and well-being, and trigger ongoing community complaints about annoyance, sleep disturbance and stress. Evidence concerning the adverse health effects of environmental noise is detailed in a number of publications, for example, the *World Health Organization (WHO) Night Noise Guidelines for Europe* (2009) and the *WHO Guidelines for Community Noise* (1999). To protect public health, it is prudent to take all reasonable and feasible measures to minimise public exposure to mine-related noise, irrespective of compliance with the relevant noise policies.

Data presented in Section 5.1 Complaints Analysis of Appendix 5 – Social Impact and Opportunities Assessment of the EIS, indicate that 75% of the 16 complaints received over the three years to June 2014 related to noise and blasting, and that the majority of complaints came from just two households. These complaints arose despite the blasts that were the subject of complaints, having been undertaken within approval limits.

Under the *NSW Industrial Noise Policy* (EPA 2000), a development is considered to cause a noise impact if the predicted noise level at the receiver exceeds the project specific noise levels (PSNL) for the project.

The noise modelling in the EIS identifies 3 private residences that will experience exceedances of noise criteria of greater than 5 dB(A) placing them in the zone of acquisition. There are a further 8 private residences that will experience exceedances of 2-5 db(A) above the PSNL, placing them in the noise management zone.

The *NSW Industrial Noise Policy* details the response and mitigation measures required when noise trigger levels are met or exceeded. Effective community consultation is required throughout the project to facilitate public involvement and to allow for the community to participate in the mitigation selection process.

In February the NSW Environment Protection Authority (EPA) announced the introduction of new conditions for open cut coal mines in NSW prohibiting the emission of blast fumes that are likely to cause offence to members of the public. The new licence condition states: "offensive blast fumes must not be emitted from the premises".

Results presented in Appendix 6 on page 125 and 126 for NO_2 from blasting modelling reinforce the need to ensure blasting is subject to strict meteorological criteria to ensure no impact on surrounding residents. We emphasise the need to ensure strict control of blast conditions to protect the public from blast fume emissions.

Rainwater Tanks

It is noted in the EIS that rainwater tanks will be cleaned at privately-owned properties every three years within a 4 kilometre radius from the approved Project Area.

The peak reference document in Australia for information on rainwater tanks is enHealth's *Guidance on use of rainwater tanks* (2010). It would be appropriate to utilise this document and apply its recommendations and standards to rainwater tank systems within the vicinity of the development.

The above document states that "tanks should be inspected every 2-3 years for the presence of accumulated sediment. If the bottom of the tank is covered with sediment the tank should be cleaned". With the impact of increased dust from mining operations, it is possible that the current three year cleaning interval may be too long. Consideration should be given to decreasing the time interval for cleaning tanks at privately-owned properties, or implementing a mid-term inspection.

In addition, consideration should be given to installing rainwater tank first flush diverters to reduce the amount of sediment entering the tanks.

A management system for receiving complaints and rectifying issues identified should be considered.

If you require any further information please feel free to contact Carolyn Herlihy, Environmental Health Officer on (02) 4924 6477.

Yours Sincerely

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