muswellbrook shire council

ENQUIRIES
PLEASE ASK FOR Sharon Pope
DIRECT 02 65493868
OUR REFERENCE
YOUR REFERENCE

12 April, 2021

Brad James
Principal Case Manager
Independent Planning Commission

E: ipcn@ipcn.nsw.gov.au

Dear Mr James,

Mangoola Coal Continuing Operations Project – SSD 8642 – Muswellbrook Shire Council Comment – Further Air Quality Information

I refer to the material recently exhibited by the Commission, being:

- the transcript of the Commission's meeting with EPA, NSW Health and DPIE on 25 March 2021; and
- the EPA and DPIE presentation material at the Commission's meeting on 25 March 2021.

Council thanks the Commission for the opportunity to provide further comment.

1.0 Council holds concern that the documents that the different government agencies are referring to are old and do not reflect contemporary circumstances, mine approvals or operations.

2.0 The 2012 Upper Hunter Fine Particle Characterisation Study predates significant changes to mine operations in the locality:

- Bengalla mine approvals have been modified several times to change emplacement size/locations and ROM coal extraction rates;
- Muswellbrook Coal Mine approvals have been modified;
- Mangoola Mine construction activities commenced 2010 and first coal was produced 2011 with ROM coal production still ramping up in 2012; and
- Mount Pleasant Mine construction commencing 2016 and first coal produced in 2016.

Consequently, the fine particle characterisation, if completed on 2020 air quality readings, would likely be very different.

3.0 The 2012 Upper Hunter Fine Particle Characterisation Study predates a period of increasing levels of spontaneous combustion occurring on the Muswellbrook Coal Mine site. During the cooler months, when a temp inversion is generally in place for 6 or more hours over Muswellbrook, the smoke from spontaneous combustion is both very visible and detectable as odour. It is unclear from the characterisation study whether spontaneous combustion would be measured as wood smoke, secondary sulphate or secondary nitrate.

ALL COMMUNICATIONS TO BE ADDRESSED TO:
THE GENERAL MANAGER MUSWELLBROOK SHIRE COUNCIL PO BOX 122 MUSWELLBROOK NSW 2333
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4.0 The 2012 Upper Hunter Fine Particle Characterisation Study predates programs in Muswellbrook and Singleton that were put in place to assist homeowners to clean wood heater flues, thereby improving burn efficiency, and to replace wood heaters with air conditioning.

5.0 Irrespective of the source of $PM^{2.5}$ particles, if an unsafe level is reached, to maintain human health it is important that controllable activities reduce their generation of $PM^{2.5}$ to assist in bringing pollution levels back to acceptable levels.

6.0 The 2010 NSW Health report identified that Muswellbrook and Upper Hunter LGAs had higher levels of cardiovascular and respiratory hospitalisations, as well as asthma hospitalisations (adults and children), when compared with the rest of NSW. Despite the significant number of mine approvals and modifications since that date an updated report has not been prepared.

7.0 Council's view is that the 24-hour averaging period for air pollution monitoring has the unintended consequence of obscuring issues of elevated $PM^{2.5}$ levels at night, particularly when a temperature inversion is present, and that a 12-hour average would be better.

8.0 The compounding impacts of multiple intensive mining operations and coal fired power stations concentrated around a residential area stretch environmental, social, human and economic capital. The conventional mine-by-mine approach to assessment, management and mitigation does not provide confidence for the local communities impacted in a location with multiple active mines.

9.0 A better approach would involve investment in regional datasets, scientific modelling, scenarios and preferred futures, research into impact interactions, trends, effects pathways and areas of maximum mitigation impact, better regional planning, the establishment of thresholds and limits, joint monitoring, the collection of information on planned developments and more consistent data standards and methodologies. The Upper Hunter Cumulative Impact Study and Action Strategy 1997 needs to be updated to accommodate these approaches.

10.0 The current approach taken by the State Government to monitoring the cumulative impacts of air quality on the health and wellbeing of Upper Hunter residents does not assist the Commission in making informed decisions.

11.0 In the absence of regional datasets, scientific modelling, scenarios and preferred futures, research into impact interactions, trends, effects pathways, the establishment of thresholds and limits, and joint monitoring, the Precautionary Principle should apply to decision making.

12.0 If the project is to be approved, Council requests that the Proponent contribute funding toward:

- An update to the 2010 NSW Health report;
- An update of the 2012 Upper Hunter Fine Particle Characterisation Study;
- A study into the effects to human health of exposure to night-time dust levels in the Upper Hunter;
- The installation of an EPA monitored ceilometer in Muswellbrook; and
- Applies a No-fault Exceedance of Air Quality Standards condition, similar to that applied to the Mount Pleasant Mine:

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Air Quality Criteria

XX. Except for the air quality-affected land referred to in Table 1, the Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not exceed the criteria listed in Tables A, B or C at any residence on privately-owned land.

Table A: Long term criteria for particulate matter **Pollutant**	***Averaging Period***	***dCriterion***
Total suspended particulate (TSP) matter	Annual	a90 µg/m3
Particulate matter < 10 µm (PM10)	Annual	a25 µg/m3
Particulate matter < 2.5 µm ($PM_{2.5}$)	Annual	a8 µg/m3

Table B: Short term criteria for particulate matter **Pollutant**	***Averaging Period***	***dCriterion***
Particulate matter < 10 µm (PM10)	24 hour	b50 µg/m3
Particulate matter < 2.5 µm ($PM_{2.5}$)	12 hour	b25 µg/m3

Table C: Long term criteria for deposited dust **Pollutant**	***Averaging Period***	***Maximum increase in deposited dust level***	***Maximum total deposited dust level***
c Deposited dust	Annual	b2 g/m_2/month	a4 g/m_2/month

Notes to Tables A-C:
a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources);
b Incremental impact (i.e. incremental increase in concentrations due to the development on its own);
c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and
d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.

Council appreciates the opportunity to comment and would be pleased to provide additional information if requested.

Regards

Sharon Pope
Executive Manager Environmental and Planning Services

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