

12 March 2021

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Dear Ms Evans

**MOUNT PLEASANT OPTIMISATION PROJECT (SSD-10418)**

I refer to your email of 2 February 2021 requesting advice in relation to the Environmental Impact Statement (EIS) for the Mount Pleasant Optimisation Project.

The Mount Pleasant Operation is an open cut coal mine located approximately 3 kilometres north-west of Muswellbrook in the Upper Hunter Valley of New South Wales (NSW). It is understood that the open cut mine is currently at its closest proximity to Muswellbrook and that the focus of mining activities will progressively move north and west, further away from Muswellbrook town.

The proposal includes:

- Increasing the per annum extraction rate from the currently approved 10.5 million tonnes (Mtpa) of run-of-mine (ROM) coal to 21 Mtpa, in stages, as the active mining area moves further away from the town of Muswellbrook.
- Extending the life of the mine from December 2026 to December 2048.
- Increasing per annum waste rock removal from 53 million bank cubic metres (Mbcm) to 89 Mbcm.
- Deepening the North Pit by approximately 85 metres, and changing, but not increasing, the surface disturbance area.
- Maintaining the hours of operation at 24 hours per day, 7 days per week.
- No changes to the open cut mining method.

Hunter New England Population Health (HNE Health) has reviewed the EIS for the Project paying particular attention to the management of air quality, noise, water and issues which may have an impact on public health and would like to make the following comments.

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### Air Quality and Noise

Previous assessments for the Mount Pleasant Operation identified a number of privately-owned residences that were predicted to exceed applicable noise or air quality criteria. These residences were provided for under the NSW Voluntary Land Acquisition and Mitigation Policy (VLAMP) with acquisition upon request rights for 30 receivers, mitigation upon request rights for 20 receivers, and specific noise criteria for 12 receivers.

The summary of modelling results in Appendix B - Air Quality Impact Assessment (AQIA) show modelling results for 6 scenarios, being years 4, 6, 9, 12, 19 & 22.

In the AQIA, Tables 7-2, 7-3, 7-4 and 7-5 detail the extent of the exceedances potentially impacting these residences. For example, in Table 7-3, Scenario 4 Project alone 24 hour averages for PM<sub>10</sub> are predicted to be up to 91 µg/m<sup>3</sup> on up to 19 days at receptor 154b, and up to 104 µg/m<sup>3</sup> on up to 12 days at receptor 156a.

The AQIA summarises that 13 privately owned receptors and one parcel of vacant land would be afforded acquisition upon request rights for potential air quality impacts. Of these, all but two already have acquisition upon request rights for potential noise impacts under the current approval. Of the remaining two, one has mitigation upon request rights for potential noise impacts and there is some ambiguity as to whether the other one (154b) also has mitigation upon request rights for potential noise impacts (in paragraph 6 on page 66 of the AQIA it says 154 and 154b have mitigation rights, but in the last paragraph on the same page it only mentions 154).

Table 1, below, is adapted from Tables 5-2 and 5-5 in the AQIA, to show the summary of PM<sub>10</sub> and PM<sub>2.5</sub> levels monitored at Muswellbrook and how these compare to the Ambient Air Quality National Environment Protection Measures (NEPM) standards for these metrics.

**Table 1 – Summary of ambient PM10 and PM2.5 levels from the Upper Hunter Air Quality Monitoring Network at Muswellbrook 2012 to 2019.**

Dust metric	NEPM standard (µg/m <sup>3</sup> )	NEPM 2025 Goal (µg/m <sup>3</sup> )	2012	2013	2014	2015	2016	2017	2018	2019
PM10 Annual Average	25		21.8	22.6	21.4	19.1	19.2	21.7	27.2	34.4
PM10 Maximum 24 hour average	50		51.0	55.6	53.0	72.6	43.9	56.5	185.9	231.3
PM 2.5 Annual average	8	7	10.1	9.4	9.7	8.7	8.4	9.4	9.4	12.2
PM2.5 Maximum 24 hour average	25	20	26.4	36.6	27.4	31.2	29.4	31.1	26.5	77.4
Red indicates exceedance of NEPM standards										

These results indicate that the town of Muswellbrook is already experiencing in all years, PM<sub>2.5</sub> levels which exceed the current NEPM standards of 8 µg/m<sup>3</sup> annual average and 25 µg/m<sup>3</sup> 24 hour average. The results also show multiple exceedances of PM<sub>10</sub> levels.

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**Conclusion**

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. Both the modelling, and the actual air monitoring results for Muswellbrook (2012 – 2019), show exceedances of NEPM standards for PM<sub>10</sub> and PM<sub>2.5</sub>. While it is understood that there are multiple sources contributing to the PM levels in Muswellbrook, that is not an acceptable reason to allow further increases that may impact on the health of the residents of this area.

If you require any further information please telephone Carolyn Herlihy, Environmental Health Officer on 4924 6477.

Yours sincerely



Dr David Durrheim  
Director - Health Protection

