

**Margot White Response to Independent Planning Commission on Additional Material -
Mangoola Coal Continued Operations (SSD 8642)**

My understanding is that the Commissioners, Professor Barlow and Mr Cochrane were seeking additional information and clarification on matters of air quality in the Upper Hunter region:

- What the trends are for PM10 and PM2.5 levels in Muswellbrook, Wymbong, Jerry's Plains, Singleton and Merriwa?
- In particular sustained high levels of PM2.5 and exceedances and concerns about long term cumulative effects of this.

It appears to me that apart from actually having monitoring results for the levels of both PM10 and PM2.5 (and therefore knowing that the levels are too high, and in the case of PM2.5 exceeding the NEPM level of 8ug/m3), that the Department does not have sufficient recent data to make the assumptions they have in their additional presentation.

There are far too many variables around the data when comparing one location with another. For example what is in the immediate vicinity of each monitor?

I do know for example the Muswellbrook Bowman Park monitor is in a residential area where there are several homes with chimneys in close proximity. We don't know how these residents heat their homes. That is really the point - there is just not enough data to make the conclusions the Department are making.

It appears they are actually providing unsubstantiated advocacy for the industry.

The particle characterisation study that Matthew Riley (Director of Climate and Atmospheric Science) relies on in his presentation is now 9 years old. To claim that wood smoke from domestic solar (sic) fuel wood heaters in winter is still the primary cause of the higher PM2.5 concentrations in Muswellbrook is a difficult proposition to prove. Muswellbrook's population has remained static from 2012 to the present. Mining has increased significantly over the same time frame. One could assume that with Public Health campaigns having been run around emissions from wood fired heating and open wood fires that their use may have declined somewhat. However the reality is we don't know because there is no recent data to quantify wood heater usage in Muswellbrook.

The fact remains that regardless of source, the levels of PM2.5 are too high.

We know open-cut coal mining and its heavy use of off road diesel engines is a significant contributor to PM10 and PM2.5 levels.

The Department seem to be arguing both ways when it comes to source of monitored particle matter levels in regard to Mangoola Coal Continued Operations Project.

The DPIE seeks to disaggregate Muswellbrook PM10 air quality data from Mangoola data in one paragraph of their Assessment Report:

stating at p56 6.3.19: DPIE Assessment Report

“While some exceedances were identified at the EPA monitoring station at Muswellbrook in 2018, this monitor is located over 17km from dust generating activities at Mangoola and is located at a parallel to the dominate wind direction at the site. Accordingly, the Department is satisfied that the background air quality environment surrounding the Mangoola Mine can be characterised as remaining below 25ug/m3 annual average PM10”

At the same time the department is seeking to aggregate air quality data claiming at p56 6.3.21 DPIE Assessment Report

“Between 2012 and 2018, PM2.5 concentrations have exceeded the annual average criterion of 8ug/m3 at monitors near the existing Mangoola Mine and the 24-hour average PM2.5 criterion has been exceeded on 15 occasions at the EPA monitor in Muswellbrook.....the PM 2.5 levels measured in Muswellbrook are largely attributable to particles emitted from vehicle exhaust and wood heaters within the Muswellbrook township”

Matthew Riley of DPIE then seeks to aggregate PM10 data in his presentation of additional information to the IPC P-5 lines 1 & 2 (Auscript Australasia Pty Limited Transcript in confidence) states ***“because PM10 can be a pollutant that travels a long distance, it is indicative of a regional pollutant.”***

All three explanations cannot be correct.

What we do know is that large scale open cut coal mining has increased in the Muswellbrook LGA since the 2012 Characterisation Study was done. Levels of PM2.5 are above the 8ug/m3 annual criterion every year and the Upper Hunter is over-represented in exceedances for PM10.

We also know (and Adam Gilligan EPA Director of Regulatory Operations shows in his presentation slides and states P-11 line 39[Auscript Australasia Pty Limited Transcript in confidence]) that there is:

“increased dust lift-off from mined areas, some of that simply from exposed areas and some from active mine operations.....climate is the driver for that because it’s obviously harder to control dust when it’s hot, dry and windy.”

GHG emissions will increase weather variability. We can expect more extreme drought conditions if we don't start to transition away from open cut thermal coal mining. The Department and the proponent blame drought for the poor air quality, failing to make the

obvious connection that the proposed project seeking approval will produce GHG emissions adding to the potential for more extreme weather conditions.

Those of us that live in close proximity to this Project know that the dust in our homes has increased significantly since Mangoola Coal began operations. This is referred to as anecdotal evidence, there is no data to support these statements other than the lived experience.

The Department uses old data from the fine particle characterisation study done in 2012 and compares air quality here with cherry-picked other NSW locations to support their bias towards approval of this project.

Regardless of what the air quality is in Wagga Wagga or Liverpool, it is not alright here in this LGA, so instead of trying to explain it onto other sources, without definitive data, it would be wise to control the things we can.

The simplest way to control and possibly reduce the particulate matter in the air is to not disturb anymore land.

Is trying to use chemical suppression after exposing the land a good option? I would think at this point in time we should be trying to reduce the amount of chemicals we are putting into the water cycle not increase them.

Best practice dust suppression at mines is not keeping pace with the increasing large areas of exposed/disturbed ground.

The off road diesel engines are not required to have currently available technology fitted to them to reduce their emissions.

We the community are being told it is all ok, that no harm is being done.

In the meeting transcript P-15 from line 40 (Auscript Australasia Pty Limited Transcript in confidence) Dr Richard Broome states

“exposure to PM2.5, both long term and short term, is associated with the shortening of life, so premature death.....to date there’s not.....the suggestion that PM2.5 from different sources might have different health effects....”

This is exactly the reason we should not be approving any increase or continuation of activities that we know contribute to our poor air quality.

I do not think that the IPC's questions about the long term air quality trends from the existing monitoring networks have been adequately answered by the DPIE.

In the absence of evidence I feel this project cannot be approved. Dr Richard Broome again P-16 from line 25 (Auscript Australasia Pty Limited Transcript in confidence)

“we know very well from evidence that exists that exposure is associated with health effects and that reducing that exposure is likely to result in some sort of benefit to the community that’s – where the exposure is reduced.”

So the correct course of action is to not approve this project and to move towards reducing the burden on our air shed.

Margot White