

Dartbrook Mine - Modification 7 - IPC presentation – 10 min speaking time

Intro: My name is Catherine Chicken. Thank you for your time today.

In the interests of full disclosure, I am a consultant veterinarian with SEH and sit on the Upper Hunter Air Quality Advisory Committee as a non-coal industry representative. Most importantly today though, I am a local community resident with grave concerns about the impact re-establishing working operations at the Dartbrook mine pose, to the health and well-being of the communities of the UH, particularly the residents of Aberdeen, Muswellbrook, Scone and surrounds. I speak today as a deeply concerned UH resident.

There are many areas of concern regarding the re-establishment of extractive operations at the troubled Dartbrook underground mine – the list is long and concern in the community is high. The issues I wish to focus on are the effects this proposed mine modification will have on the air quality of the region, its visual impact and the cumulative effect of yet another mine on the health and well-being of the residents of the UH.

Outline Slide and move on to AIR QUALITY slide

1. Air quality

Air quality has been of increasing concern for the whole UH community for at least the last decade, as evidenced by the establishment of the UH Air Quality Monitoring Network in 2011 - installed in response to community concerns regarding air quality in the region in the face of increased coal mining activity. The network provides valuable AQ data from the 14 PM 10 (coarse particle) and 3 PM 2.5 (fine particle) monitors located strategically throughout the UH Valley. This data is publically available on the Office of Environment and Heritage website.

Slide of graphs - Figure 1

Unfortunately, air quality is deteriorating in the UH and this has been particularly apparent throughout the last 2 and a quarter years. Annual PM 10 levels at the Muswellbrook, Muswellbrook NW and Aberdeen monitoring stations rose significantly throughout 2017 and 2108, with levels for 2019 tracking upwards to date. The **annual** PM 10 levels in Muswellbrook in 2018 were above the NEPM 25ug/m³ benchmark for the first time since monitoring began, with Aberdeen and Muswellbrook NW stations measuring significant rises as well (**fig 1**). Since establishment of the Mt Pleasant mine on the NW

outskirts of the Muswellbrook township in mid-2018, there have been significant increases in **hourly** PM 10 levels at the Aberdeen and Muswellbrook NW network station monitors, as clearly seen on many days by the naked eye. The annual PM10 levels at these two sites were dramatically higher in 2018 than 2017, coinciding with increased activity at the Mt Pleasant mine site.

Annual PM 2.5 levels in Muswellbrook have never been at, or under, the $8\mu\text{g}/\text{m}^3$ NEPM benchmark since monitoring began in 2012, **with no prospect of that being achieved in the current climate.**

There is presently no monitoring of PM 2.5 levels at the Muswellbrook NW and Aberdeen stations.

Ref Slide AQ

Data from the AQ network and the subsequently generated Seasonal Air Quality reports, published and displayed on the EPA website, provide the **evidence base** to the deteriorating air quality of the region. Adding any more pollutants from the Dartbrook mine into the airshed of the Muswellbrook / Aberdeen area will only exacerbate this already significant problem.

We have got very good at monitoring air quality in this region, yet our ability to improve it has not been nearly as successful, despite many valuable initiatives implemented by the EPA in conjunction with the mining industry. It is very difficult to see how the much needed improvements in air quality are to be achieved in the face of increasing local coal production and ever more challenging climatic conditions resulting from the local effects of climate change; effects manifesting primarily as increased ambient temperatures, decreased rainfall and more severe drought conditions.

The impacts on PM 2.5 levels of 192 truck mvts per day, 11hrs per day, 5 days a week, to transport coal under the NE highway to a handling facility less than 1.5 km from the township of Aberdeen and adjacent to the highway are concerning for the health and well-being of the community to say the least, and should be a major concern in consideration of this proposal.

Unlike in domestic vehicles, the emissions from off-road diesel trucks are effectively unregulated and, as this proposal involves significant numbers of truck movements in close proximity to the Aberdeen township, it will result in an increase in the already unacceptably high PM 2.5 levels of the region. In addition, there will be added PM 2.5 emissions from the diesel trains hauling

extracted coal from across the NE highway at the coal handling facility to the port of Newcastle. This aspect of impact of the proposal has not been sufficiently interrogated in consideration to the overall air quality impacts along the rail corridor and the implications of the emissions on climate change more broadly. We are dealing with a very different landscape, both literally and figuratively, in relation to the cumulative impacts of mining in this region on both air quality, and more broadly climate change, than when this mine was initially approved in the 1990s. This must be considered closely in assessing the impact that any production operations at this mine will **now** have.

2. Visual amenity

The visual impacts of mining in this region are significant and obvious for all to see, and are now so wide ranging they cannot be hidden from the major ingress and egress roads of the UH. Promoting tourism...., and the UH as a desirable destination to visit and live, is already challenging in light of the severely impacted visual landscape from Singleton to Muswellbrook. The landscape of the UH Shire is, as yet, unadulterated and the community clearly want it to stay that way. Given the proponent has openly expressed the intention to use underground operations as a precursor to an open-cut operation, approval of this proposed modification 7 will provide the pathway to open-cut coal mining in the UH Shire, a situation opposed by the local Council and the community. Even viewed in isolation, which it shouldn't be, this mine modification, with it's significant truck movements and coal loading so close to the township of Aberdeen, abutting one of the major inland public highways of the state, will be an eye saw.

Visual impacts of ever encroaching coal mining on the UH region negatively affect investment in surrounding productive land. The significant numbers of Drive In - Drive Out workers at many of the UH coalmines are a sign of the lack of desire of many of these workers to live locally. This means the traffic snake entering and exiting our region is increasingly creating congestion, contributing further to air pollution and negatively impacting residents of the area. Clearly the appeal of living in close proximity to coal mines is not high for the many DIDO workers!

3. Community health and wellbeing – mental and physical health of individuals, societal fabric / cohesion

Of concern for the whole community, regardless of their workplaces, are the cumulative impacts of mining on the health and well-being of all residents.

The cumulative impacts of mining on air quality and visual amenity are clear for all of us living in this district to see, smell and even, at times, taste. Emissions from aging coal-fired power stations, spontaneous combustion issues and dust emissions from open cut coal mines are all contributing to unacceptable levels of impact on local communities. Most notably of significant impact to UH and Muswellbrook Shire residents is the newly established Mt Pleasant mine which since its establishment in mid-2018 has resulted in elevated coarse particle air pollution detected at the Muswellbrook NW and Aberdeen network monitors. It provides a spectacular visual insult on arrival into Muswellbrook and the dust emanating from the site is obvious to see.

Cumulative long term health effects of air pollution and the visual impacts from mining on residents of this region are yet to be determined. Importantly for community members, there are very real mental health impacts resulting from on-going adulteration of the landscape.

Epidemiological studies on physical and mental health impacts are not likely to be revealing, due to the relatively small population size of the region, yet there is a need to more fully investigate and monitor the health impacts of mining activities in this area. Epidemiological studies in large population bases throughout the world have shown the significant health impacts of air pollution, and that **no level of air pollution is regarded as safe**. Considering elevated PM 2.5 levels are recognised as the greatest risk to health, allowing any further increase in these pollutants, as would arise from the off-road diesel truck movements and additional activity at the coal handling facility created by this proposal, is not justifiable.

To get to the position of today, where the residents of the township of Muswellbrook are surrounded by open cut coal mines, with the prospect of being impacted by more in the future, the processes involved in the approval

and monitoring of mining operations in this region must seriously be brought into question. The system is not serving residents and community members of the UH at all, and the balance between mining and other co-existing industries has passed any sort of tipping point. We are now at the stage where mining operations are negatively impacting the communities of the UH to an unprecedented level with respect to air quality, visual amenity and the associated mental and physical health effects that accompany this activity. There is no room for more coal mining in this region. If we are to make a sensible transition away from a coal based economy, a shift which has never been more urgent, we must preserve and support the other sectors of the local economy in order to preserve jobs into the future.

I implore you, Commissioners, to view this modification in broader terms than just the individual mine operation on the outskirts of Aberdeen and start the process of changing the landscape of this region for the betterment of all.

Thank you for your time.