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Independent Planning Commission
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Mangoola: Further submission on additional material

Thank you for the opportunity to make a further submission on new material about the Mangoola Continued Operations Project.

Lock the Gate Alliance has reviewed the transcript of the Commission's meeting with the EPA and DPIE and the presentations made on the subject of air quality in Muswellbrook and appreciates the opportunity to make further comment on this material.

As is made clear by Adam Gilligan in the transcript of the Commission's meeting, air pollution in Muswellbrook is a serious issue that is affecting people in the district. Attempts to downplay the role of mining in this environmental and health problem are misdirections that do not materially alter the Commission's responsibility to refuse this project for exacerbating this problem.

In summary, having read the material and based on our knowledge of the situation in the region and the regulatory failures that are contributing to it, we make the following observations:

- Current air quality in Muswellbrook is unacceptable. It does not meet national or NSW standards and has not done so since monitoring began. Contributions to this problem by sources other than coal mining do not change the fact that the situation is already unacceptable and that this project will add further particulate pollution to the load already being experienced;
- Current air pollution in the district comes from multiple sources, but that does not make it acceptable to add further to that load if that can be avoided;
- That air pollution is also a problem in Liverpool or Armidale does not alter the matter being considered by the Commission: should further particulate pollution be added to the existing load by this project?
- That the Government has not conducted a cumulative air and health impact assessment for the region and that the population of the Hunter is too low to be able to statistically estimate the specific deaths, hospitalisations and other health effects directly attributable to air pollution broadly and mining's contribution to it specifically does not mean this effect is not occurring, especially given evidence provided by local doctors and recent mine assessment material that indicate that it is;
- Conditions of consent regarding air quality are being breached by the Mangoola mine and in any case, compliance with these conditions using "best practice" is not effective when hot and windy conditions prevail.

Air pollution load, sources and impacts

The link between higher temperatures and higher concentrations of particulate pollution which was made by Matt Riley in his presentation to the Commission must be taken into account in the IPC's determination. With increasing temperatures, and declining rainfall expected over the next twenty years as a result of climate change, this is a strong argument against adding further sources of particle pollution to a region already experiencing unacceptable pollution loads. This argument is compounded by the relationship between coal and climate change: air pollution is made worse by drought, which is made worse by climate change, which is made worse by continued release of greenhouse gases into the atmosphere, including, if approved, by this project both directly and indirectly.

Indeed, Adam Gilligan made the important clarification that increased temperatures itself leads to increased dust from the coal mines:

When we have hot, dry conditions, that will be the driver for increased dust in the valley and some of that will be dust lift-off from agricultural land or regional dust storms and those sorts of events. But we will certainly see increased dust lift-off from mined areas, some of that simply from exposed areas and 40 some from active mine operations. So, yes, climate is the driver for that because it's obviously harder to control dust when it's hot, dry and windy. But we shouldn't suggest that that is simply something beyond the control of those sort of anthropogenic sources.

In his remarks to the Commission, Matt Riley made mention of the *Draft Clean Air Strategy* which is currently on public exhibition. That Strategy makes it clear that the Upper Hunter is particularly affected by particulate pollution and that industry (particularly coal mining) is a significant source of this pollution. The Draft Strategy indicates that in the Upper Hunter, 77% of human exposure to PM_{2.5} comes from "industry" which predominately means coal mining. This is qualified with remarks that a 2015 survey indicated that wood heater usage may have been underestimated in Upper Hunter. We note that the estimates in the Draft Strategy are based on the 2013 air emissions inventory, which is the most recent available. That inventory clarifies that coal mining contributes 84.3% of human-sourced PM₁₀ in the "non-urban" area of the Greater Metropolitan Region and 60.9% of human-sourced PM_{2.5} in the "non-urban" area. Using an inventory from 2013 means these estimates do not reflect the increase in coal mining activity in the Upper Hunter since that time, including on the outskirts of Muswellbrook. Significant mining expansions that have taken place since 2013 include expansions of both Bengalla and Mount Arthur coal mines and the commencement of the Mount Pleasant mine. The government's failure to conduct an air pollution inventory in the years since 2013 should not, according to the precautionary principle, be a reason to allow further intensification of pollution loads to be inflicted on people in Muswellbrook.

The Strategy also estimates the cost of pollution in broad terms:

Each year, human-made air pollution is estimated to shorten lives of people in New South Wales. It has been estimated (Broome et al. 2020) that there are 5900 years of life lost annually due to long-term exposure to fine particles in the NSW Greater Metropolitan Region (GMR). This equates to a mortality effect equivalent to 420 premature deaths.

Air pollution is estimated to result in \$3.3 billion (2019 AUD) in health costs each year in the NSW GMR. This is based on an inflation-adjusted value of a statistical life of \$8.0 million (in 2019 AUD) from Access Economics (2008) applied to the 420 attributable deaths from Broome et al. (2020).

Continued action to reduce exposure to air pollution will help avoid adverse symptoms, the need for medication, visits to doctors and emergency departments, hospital admissions and premature deaths across cities and regions. Actions which achieve even small improvements in air quality can result in significant public health benefits.

As the recent assessment material for the Mount Pleasant Optimisation Project indicated, asthma rates are higher in Muswellbrook than the rest of the Hunter¹, and adolescent asthma and deaths from respiratory illness are significantly higher in the Hunter than elsewhere in NSW². The remarks of Richard Broome in the meeting with the Commission glossed over this and focussed on the difficulty of attributing health impacts to air pollution statistically in a population as small as Muswellbrook. This is unfortunate and again brings to mind the precautionary principle: inability to statistically measure and report on this issue or have clarity on just how many hospitalisations, deaths, pre-mature and low-birth-weight babies are attributable to air pollution in the region is not a reason to subject the community to more of it. The impacts of air pollution are incremental: the worse air quality is, the worse its effects and *“even small improvements in air quality can result in significant public health benefits.”* The NSW Government has failed to undertake a meaningful cumulative impact assessment of air pollution in the Hunter and its effects on the population, but following the precautionary principle, the absence of such understanding cannot be used by the Commission as an excuse to approve this project.

Mr Riley was asked if the *Draft Clean Air Strategy* deals with sources of pollution other than woodsmoke, and specifically whether it deals with coal mining and he replied, “Yes. It does speak about regulation and our programs to improve and enhance the regulated community.” It is strictly true that the Draft Strategy “speaks about” coal mining, but there are no new measures proposed in it for reducing coal mining particulate pollution, as we describe below.

Mitigation and conditions

Crucially for the IPC, the *Draft Clean Air Strategy* makes the development assessment and determination process the key action for dealing with air pollution from coal mining. No other measures are proposed to address it. The Draft Strategy further states that:

If approved by the planning consent authority, mines must comply with conditions of consent and any conditions on an environment protection licence. Together these conditions set out air quality criteria and operating conditions that must be met, including the need to implement best practice management to minimise any air quality impacts.

For this reason, the remarks made by Adam Gilligan in the transcript of the meeting about the limitations of the “dust stop” program during adverse weather conditions are important.

The EPA’s remarks to the Commission are candid about the limits of the “dust stop” program given the amount of area exposed to dry air and wind: even when mines are complying with the dust stop practices and employing best practice dust management, there is unavoidable dust lift-off: “fundamentally, whenever you have that significant area of earth exposed on a hot, dry, windy day, you’re going to see lift-off.” Essentially, consent conditions and dust management practices are important and have had good effect, but adding more area of exposed land and spoil piles will contribute further to air pollution. Relevantly, the Department’s recommended condition of consent B27 does not expressly require the mine to ensure air quality standards are met, rather it requires

¹ Mount Pleasant Optimisation Project Environmental Impact Statement Appendix N Table 10.

² Mount Pleasant Optimisation Project Environmental Impact Statement Appendix R Table 3.2.

them to “ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances.” It is the mitigation measures that are prescribed, not the standard and the standard is only invoked with specific reference to causation by Mangoola itself. This essentially perpetuates the current situation: air quality standards are not being met and this is enabled and made lawful by the conditions of consent.

The presentation from the EPA helpfully distinguishes days where the air is clean when it enters the Valley at Merriwa and becomes polluted as it travels down the Valley, from those when there is a state-wide event occurring that brings polluted air to the Valley in Merriwa. This presentation also clearly demonstrates the effectiveness of the EPA’s programs introduced in 2014 to reduce mine dust pollution. However, it also demonstrates that there are still days when air quality does not meet the standards. According to national and state policies there are supposed to be *no days* when ambient average PM₁₀ levels exceed 50µg per cubic metre. Yet, data from 2020 shows both Muswellbrook and Muswellbrook North West Monitoring Stations experienced 15 days and 14 days respectively of the 50ug/m³ PM₁₀ standard with maximum daily averages being 181 and 238ug/cm³ respectively.³

Mangoola mine’s 2019 Annual Review indicates that there were six “reportable” exceedances of the 24hr averaging period (PM₁₀ criterion) during 2019 that were not deemed “extraordinary events” by DPIE. These six were additional to “numerous” exceedances that *were* attributed to “extraordinary events” and therefore not deemed the responsibility of the mine. In each instance, a report was provided to DPIE which then “reviewed the information presented in the report and was satisfied that reasonable and feasible measures were undertaken on the day.” The same pattern of satisfaction occurred for exceedances on two non-extraordinary days reported in the 2020 Annual Review. Furthermore, exceedances of pollution standards are also reported to be occurring at tenanted mine-owned properties and these are not considered breaches because the conditions of consent allow this to occur as long as the mine communicates about it to the tenants. In short, neither the conditions of consent, nor the “reasonable and feasible” measures undertaken by the company are sufficient to actually prevent exceedances of air quality criteria. The mine explains away its incremental contribution to a pollution load created by multiple sources, including other mines, and the public suffers the consequences with limited support or action from the agencies concerned. Regarding compliance, we note that for each of the last three years, Mangoola mine has had non-compliance recorded against its environment protection licence for failing to continuously monitor for PM₁₀ at the same monitor (monitoring point 19). The above non-compliances are relevant to the IPC’s consideration because mitigation measures are factored into the air quality assessment for the mine. That is, monitoring and dust management practices are crucial to the proponent’s assertion that only one non-mine-owned property is expected to experience air pollution that breaches the particulate standards.

The Department’s policy approach and the recommended conditions of consent (B29) expressly allows air quality standards to be breached at residences that are owned by the mine itself, even those that are residentially leased. The Department’s Assessment Report noted that properties affected by the road closure and most that are affected by the intensification and spread of noise and air pollution are “mine-owned,” but did not detail whether there are people living in those properties. The Department and the policies of the Government are not concerned with the lives, rights and the health of renters and this is a major failing of the assessment. Not owning the

³ NSW Department of Planning, Industry and Environment air quality data for 2020.

property in which you live does not mean the impacts of noise, air pollution and social dislocation do not affect you. The impact of the project on renters has not been considered by the Department or Glencore at all.

Air pollution in the Hunter is causing harm and this project will add to that harm. The programs and consent conditions relied upon to mitigate this harm are not sufficiently effective to be relied upon by the Commission. We urge the Commission to refuse this application.