

Re: State Significant Development No. 5765

I wish to register this submission on the Bowdens Silver development for an open cut silver mine and associated infrastructure. I've grown up spending many weekends and most holidays on my family's farm, Sunny Hill, in Lue. I would like to register some concerns related to the impact of the development on myself, my family's business, and the wider Lue community. After examining the various volumes of the submission I have condensed my key concerns in the following submission. These concerns form the justification for my protest against the proposed development, and constitute my firm objection to this project continuing at all, or at the very least in its current proposed state. The objections are as follows:

Vol 1 Part 1 Noise and Vibration

- I would like to question why the day-time noise of 40dB(A) is allowable at Lue residences, where as 43dB(A) is allowed at the Lue Public School. Throughout the majority of the year, students are attempting to learn at the school grounds. Any disturbances due to noise could impact the ability of these students to engage properly in classes and learn as they should. It is Important to note that the decibel scale is logarithmic, and a 3dB difference is equivalent to there being twice the noise energy at the school than at the residences (in terms of power). It seems wrong that it is allowable for there to be twice the noise energy present at school than at a residential home. Likewise for the pottery hall which is allowed more than 4 times the noise energy than a residential home. This seems counterintuitive to an activity like pottery which should be a peaceful undertaking.
- The report acknowledged that airblast overpressure is predicted to exceed the human comfort criterion at 115dBLpk at R7. It is conceded that above the +3dBA level additional treatment will be offered such as double glazed windows. This will lower noise levels internally in the building, but it removes the ability to comfortably remain outside your home on a verandah, a key tenant of relaxed country living. This action makes sense near a town or city with pollution, where people are inclined to spend the majority of their time in their residences, but the people of Lue place huge value on being comfortable outdoors.
- In the report, cumulative noise is completely disregarded on a macroscopic scale, as there are no nearby industrial developments. This constitutes a gross oversimplification of the surrounding area. For example the Lue Enduro motocross track creates significant noise in the area, which anecdotally is capable of travelling many kilometers to local residences, including my own. The peak effect of this should be included in any noise modelling.
- At location R12, the predicted maximum human comfort criteria of 120dBLpk is exceeded. What about the level of this pressure wave at Lue Public School. It may comply with human comfort levels, but it will still be highly disruptive to learning activities. What is the predicted pressure level at the school during a blast?

- It is stated that traffic noise will increase the sound level at LPOI3 by 1.3dBa, which is below the 2dBa trigger level. This doesn't take into account the implied traffic increases related to mining operations such as workers or family members frequenting the Lue pub for a meal. Additionally, the big difference between town and open road speed limits will result in increased noise from braking and accelerating vehicles nearby the school. This is especially important for vehicles frequenting the mine that often have heavy loads and louder breaking.
- Is it possible for the raw noise monitoring data to be uploaded online, or accessible in real time? There should be no reason that noise monitoring at the Lue residences that are 15m and 20m from the road not be available publicly.
- I am shocked that the published peer review acknowledges that 11 rural residences will exceed the government's recommended noise levels. I am confused as to why it is allowable for the operation to exceed these government noise levels. This indicates that the proposed location of the mine is not compatible with the Lue community.

Vol 1 Part 3 Materials Characteristics

- This study explicitly concedes that it does not cover bushfire risks. Given the nature of the previous extreme bushfire season (2019/2020) we've just seen in the Wollemi area, this should surely be included. Having tonnes of sodium cyanide on site that could potentially be aerated in high wind bushfire conditions, and put into the environment is dangerous to say the least. Sodium cyanide is a known biological hazard capable of killing surrounding native vegetation. With a melting point of 563.7 degrees celsius, housing Sodium Cyanide onsite without specific bushfire considerations is dangerous. Temperatures well above 560 degrees are regularly seen in Australian bushfires, which presents the risk of a bushfire melting the sodium cyanide, increasing it's mobility and ability to permeate the ground and surrounding environment. In consideration of this, I would like to know what is the size of the cleared buffer zone between the processing area and any vegetation? The concern is raised as the solid cyanide briquettes are to be stored in the processing area. This last bushfire season has shown how traditional bushfire modelling is not conservative enough, especially when a dangerous chemical such as sodium cyanide is concerned.

Vol 3 Part 8b Lighting and Sky Glow

- Vertical illuminance calculations mention that "if shields are installed on the front and side of the fittings... vertical illuminance at the mine site boundary would reduce without significant reduction in the working illumination level within the mine site". We would like to confirm that all lights will be fitted with these guides. The entire project relies on the assumption that 'without significant impact' is fine for the residents of Lue. This precedent should also be

applied to Bowdens (specifically their lighting in this case), and guides should always be fitted regardless of whether or not the light is predicted to exceed Australian standards.

Vol 3 Part 9a Biodiversity Assessment

- 381.71 hectares of native vegetation is a huge impact. As much as 55.24% of Inland Scribbly Gum grassy open forest on hills is impacted within the region. This would impact any population of Powerful Owl within the region, and other native animals that have the scribbly gum as their habitat.
- The spotted tail quoll is already classified as near endangered in Australia. Given that two were found incidentally as roadkill near the proposed area of operations, what would the impact of increased mining traffic be on the local quoll populations? Is this project worth the risk of bringing a species to endangered status?
- Not only will this project potentially diminish Spotted Tail Quoll populations, but it also impacts at least 13 threatened species! Native wildlife, especially that which is threatened should be conserved wherever possible, especially around Lue where the fauna are a tangible asset for agri-tourism as well as the happiness of residents. A blow against the native animal population is a blow against the Australian rural culture of Lue.

Vol 5 Part 14 Agricultural Impact Statement

- Reduced groundwater levels and availability for existing authorised users and ecosystems is viewed as a high risk (B3), meaning it is likely and of medium consequence. To the people who rely directly on groundwater to supply agricultural processes, it is assuredly not a medium consequence. For example, for the two properties with registered bores that are predicted to drop by more than 2m of water level, the consequences could be critical to the continuance of their operation. In this case the risk should be critical, not medium.
- Agri-Tourism is qualified as an important part of the surrounding area. For example the cluster of bed and breakfasts to the northeast of Mudgee to service wineries in the area. The aforementioned effects of pollution, noise, and light will detrimentally impact the brand of the area, as an unspoiled location for agri-tourism. This has previously been seen in locations such as Singleton in the Hunter Region. Although mining funded studies have shown increases in cash flow to specific businesses such as restaurants in the area, the established businesses at Lue such as the pottery hall and guest houses are unlikely to benefit. For example take Elephant Mountain Wines, which is located only 3.8km southeast of the mine site. This business draws a portion of income from self-contained accommodation for up to 16 people. There is no doubt that this business will be impacted by the mining operations, as the operation will diminish the brand value of Lue as a pristine rural location. It is suggested that intervening topography would minimise any impacts on the

Lue district. This may hold for viewing the mine site directly, but pollution, noise and sky glow will transcend these physical features. I do not want to see the culture of Lue change so drastically for the benefit of a private company.

- It has been noted that surface water flow levels will decrease by 4.4% at Hawkins Creek, and 2.2% for Lawsons Creek during operations. My family's farm is located on Bung Eye Creek, and draw our water for cattle operations from the ground here. Over the drought we have had to destock by around 35% just to have enough available water to allow the cattle to survive. Decreasing the surface flow levels will have chain effects in ground water content in the area that will potentially decrease our ability to obtain water even more so.

For these reasons and others, I object to this mining project in the Lue area. Something that is significantly harder to quantify or refer to than any aforementioned issues, is the culture and feeling in a town such as Lue. It is something that I can't put a value on, or perform a cost benefit analysis for. Simply put, the quiet, rural nature of Lue is priceless, and should not be sacrificed for any amount of valuable metal that can be sucked from the earth. I want to note that all prior objections have been based on the presumption of successful operations over the entire lifetime of the project. If you look at many other Australian mining operations such as the Texas silver mine in Southern Queensland, it is clear that accidents and problems are encountered. In this case emergency action had to be taken to stop storage ponds leaking heavy metals into the Murray-Darling system. This potential disaster could be caused by as little as 40mm of rain, and send cyanide and lead into the Murray Darling Basin. As a similar operation as a silver mine, a potential breach of the tailings site at Lue, could leak less saline water with a lower pH than is naturally present in Lue into the environment which could inhibit the growth of natural vegetation, let alone poison water sources used for agricultural production with heavy metals and cyanide. The potential for lead as a bioaccumulator to poison cattle and potentially humans should be a concern.

Placing this aside, there are still detrimental impacts to the safety, biodiversity, local business feasibility, and culture of Lue, as a result of the Bowdens Silver mine. For these reasons, I object to this major project.