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Submission to Independent Planning Commission NSW

Re: Brandy Hill Quarry Expansion Project SSD 5899

Thank you for the opportunity to comment on this application. As a direct neighbour of the quarry, the four main objections I have to the expansion of the quarry are:

1. Damage to Roads:

The roads in our area are already sub-standard and frequently pot-holed, particularly along routes towards Maitland and Raymond Terrace. While this is not solely due to the quarry trucks, the extra traffic that will be generated, and the nature of that traffic (heavily laden trucks) can only add to the damage done to the already poor condition of the roads.

While Hanson contributes to the upkeep of Brandy Hill Drive, the same is not true of Seaham Road, Clarence Town Road, Raymond Terrace Road, Butterwick Road and other main routes by the quarry trucks.

2. Noise Disturbance:

Sound generated by the quarry at night, which I assume is due to the crushing of rock, is a constant low frequency thudding noise. While this noise is not too disturbing with the windows shut, during the warmer months from mid-September to mid-March, it is disturbingly loud, and one lies in bed, sometimes for hours, waiting for the noise to stop so it is possible to fall asleep.

I understand that reports on the noise level suggest it is within acceptable limits, however, it certainly does not feel that way when lying in bed on a hot night. This may be due to the frequency at which the sound is emitted not just the decibel level. Living in an off-grid, solar powered house means that we have insufficient power to run an air conditioner and are therefore unable to just "close the windows and put the air-con on" to cool the house at night for sleeping.

3. Particulate emissions:

The quarry wishes to not only expand their hours of operation, but to add to their operations, beyond the original consent to include concrete crushing and batching. While I approve in principle to idea of recycling concrete, given the CO₂ emissions produced and environmental damage caused by the production of new concrete, I do not believe that the Brandy Hill Quarry is the correct location, due to its close proximity to homes. Furthermore, I do not believe that the manner in which Hanson wishes to carry this out will be safe for the surrounding community.

Concrete crushing and batching releases several dangerous chemicals into the air and waterways, of most concern to me is the small particulate matter that will include silicates. If Hanson were to carry out open crushing, as they propose, this would not even attempt to control point source emissions, let alone fugitive emissions.

I understand that Hanson is a business and therefore wishes to keep their costs as low as possible, and this is no doubt why they wish to avoid the expense of enclosing the crushers. However, if, as they claim, they are unable to afford to carry out this procedure in a way that maximises the safety of those that live around the quarry, then I see no evidence that they are responsible

enough to carry out operations in a way that will respect the community that is going to be impacted by their operations. Almost without exception, the members of this community moved here for a quiet rural lifestyle.

4. Koala habitat:

The EIS conducted, at the request of and paid for by Hanson, claimed that the population of koalas in the area is not a breeding population. I am biologist who has worked on the reproductive biology of marsupials at various locations around Australia and in New Zealand, as part of the Marsupial CRC University of Newcastle. This included a koala project on Snake Island, just off the coast of Victoria. From carrying out this role, I developed a thorough knowledge of the mating behaviour of koalas.

I have seen this behaviour being exhibited between male and female koalas on the land between our house and the neighbouring quarry, and, as I have said previously, I believe the sampling period of the EIS to be inadequate to determine whether the population was a breeding population.

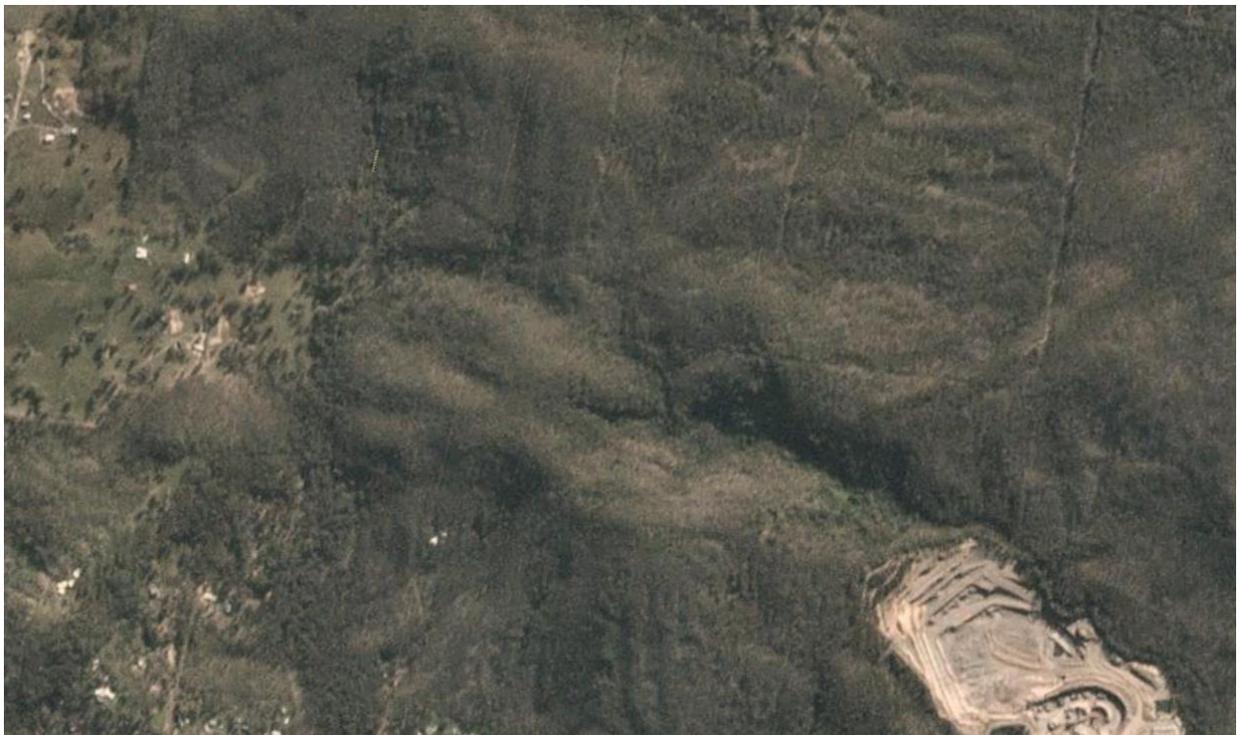
That aside, the lengthy drought that has affected this area became more patently obvious towards the end of 2019, when large swathes of trees, particularly along the ridges, became almost completely denuded of leaves, as the images below indicate.



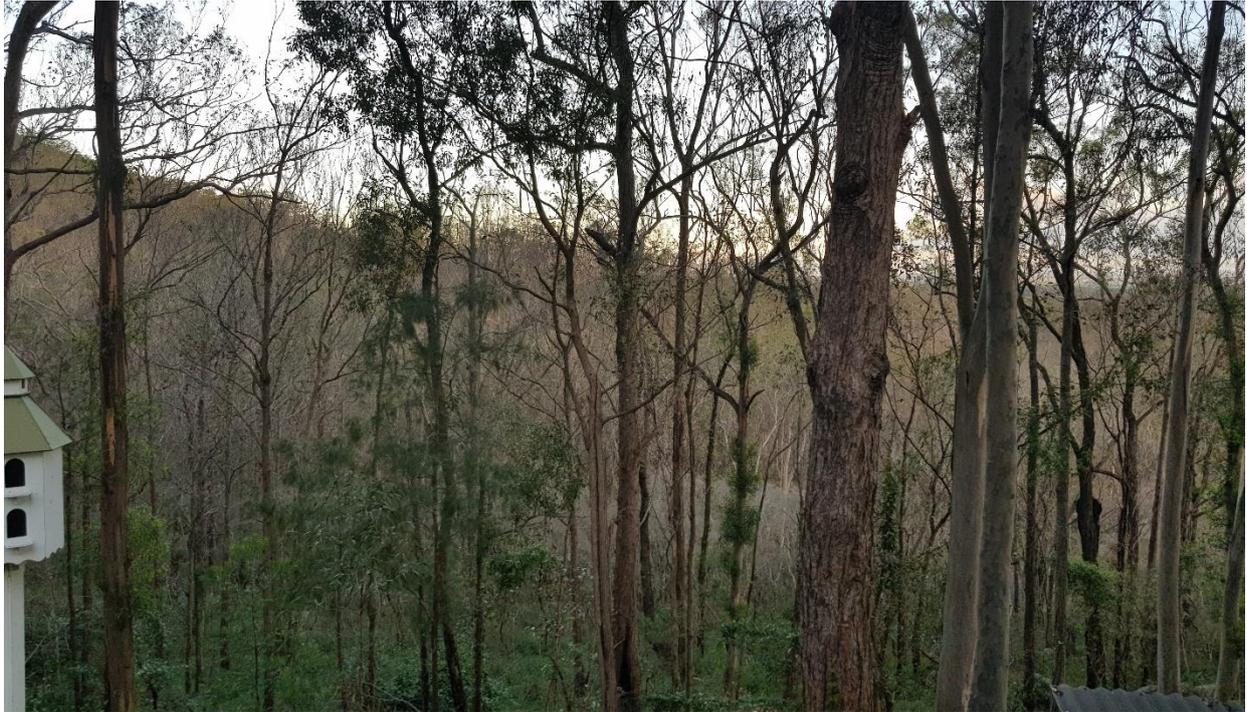
- a) **9 June 2019:** Satellite image of forested land to NW of Brandy Hill Quarry with vegetation still largely healthy. (Planet Imagery)



b) **30 December 2019:** Satellite image of forested land to NW of Brandy Hill Quarry with vegetation showing severe stress. Note the clearly obvious landforms, which were previously hidden by the canopy.



c) **5 June 2020:** Satellite image of forested land to NW of Brandy Hill Quarry with vegetation still clearly stressed, in spite of regular rain for 4 months. (Planet Imagery)



- c) **18 June 2020:** View from our home looking east towards the Brandy Hill Quarry, demonstrating the poor quality of the canopy persisting after the drought, despite recent rains. (Author's photo)

We were concerned that many trees would die, and this has been the case for some. Many trees began to show signs of recovering in February, only to be covered in caterpillars that ate the new growth. They are still struggling to recover, despite the wet beginning to 2020.

My point is that during this time the food available to koalas has been greatly diminished, therefore the koalas will have been struggling to find enough to eat. Thus, *any* tree that had leaves would be important to supplying their nutritional needs. Hanson wants to remove over 50 hectares of trees that could mean the difference between life and death for the koala population, particularly during events like this.

Climate change projections clearly indicate that these types of events will be more likely to occur in the near future, making the koala habitat even more precious than previously considered. "Offsetting" land that is already occupied by koalas or other animals (assuming it is actually suitable habitat) is not helping the population that rely on the land owned by the quarry, due to the well-established competitive exclusion principle, which states that any suitable niche will be already be occupied due to competition for resources.

Summary

The quarry operations, as they stand, are barely tolerable, but we knew there was a small quarry when we bought our property. Expanding the operations of Brandy Hill Quarry would make having them as a neighbour intolerable.

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