I understand that I can make more formal, more considered submission updates after the cutoff date of 17/12/2021 if I complete and submit this online submission. I request this opportunity to make submission updates after 17/12/2021 as I study the EIS more closely.

Being a landholder that stands to be affected by a number of the potential impacts of the proposed project, I wish to object to the project specifically on the main points below, or at least raise objections and possible alternatives (reserving the right to address these and others at a later date)

It should be noted that most of us that move to rural areas do so for the amenity afforded by the peace and quiet, and a clean natural environment (in particular air quality), apart from the wish to pursue rural activities. Most would not contemplate moving to this area if they knew a mine was to be established close by. In fact one neighbour in particular moved from a mining area because he developed a hypersensitivity to diesel fumes and particles. This neighbour will be the most affected by the quarry proposal - in particular related to the access road route.

# 1. Air quality.

The EIS would seem to conclude that in regards air quality, the project will have no adverse effects on surrounding residences. There are any number of examples of mines / quarries in NSW that cause local significant dust and air quality issues. The EIS relies entirely on "models" to reach their conclusions. "Models" are simply computer simulations of what "may be" and any algorithm and/or input data errors or bias will render the output misleading or totally useless. I simply do not agree with the conclusions in the EIS - I submit that the "model" data may be wrong and needs to revisited. We are simply asked to "trust" the model predictions.

The EIS does not make any study of the impacts of silica dust (below 2.5 microns) on adjacent landholders. Silica dust can be as small as 0.01 microns, can remain in the air for some 12 days and travel some 3 km (with wind speeds as low as 5 km/h). Silica dust can pose serious health hazards. Exposure to respirable silica dust, which is fragmented crystalline silica, can lead to silicosis, lung cancer, and COPD.

Rhyolite (the main target of the quarry) is the most silica rich of volcanic rocks. It is inconceivable that silica dust will not be a major issue associated with the quarry operations.

We all totally rely on rain water in this area. The EIS only mentions silica dust in section 4.2 and only then states "The quarry manager will be responsible for ensuring that the silica dust levels are in line with the WHS regulations" - silica dust seems to be simply included within dust mitigation plans without being specifically addressed.

Silica impacts are not addressed in the EIS to any degree of satisfaction, especially as it will be potentially the main dust of concern.

Another issue with air quality is with the proposed route of the access road. This will affect the neighbour (referenced above) who suffers serious and life threatening hypersensitivity to diesel fumes and related particle matter. However, the EIS dismisses this impact out of hand and the issue ought to be readdressed to establish the credibility of the EIS. The proposed access road route will severely affect the amenity and lifestyle of this resident and in effect prevent him from using the whole southern section of his property as the proposed road runs along the boundary.

In the community interest, I suggest that the access road route be reconsidered. There are at least two alternatives, one has been discounted in the EIS, the other not yet considered.

One alternative is the use of an existing public road (Deep Creek Road) that currently gives full current access to the project site. The proposers discount this on the basis that using that route will adversely affect one resident (although they have no issue with adversely affecting another with their current proposal). I submit that this alternate route be reconsidered. This route will also remove the issue of heavy vehicles having to merge with The Bucketts Way traffic before crossing Deep Creek bridge going south.

The other alternative is shown in an attachment (extracted from the EIS with the alternate route highlighted in white) and utilises existing gravel sealed tracks through the same 3rd party properties that are allowing the current proposed access road route. This proposed route generally follows a track (marked on the map) through the properties, part of which is presently gravel sealed allowing limited heavy truck use, meeting the EIS proposed route to the west of the boundary of DP 1/615302. Anecdotal objection to this alternative was that there will be insufficient "acceleration lane length" on The Bucketts Way before the Deep Creek bridge going south. The obvious solution being to widen Deep Creek bridge - a significant expense, but if the proposers do not wish to use the public road already available to them, and use a 3rd party property for access, any additional cost would be an outcome of that decision. This alternate would alleviate the diesel related health concerns of my neighbour at DP 1/615302, and also move the access road further from my property at DP 2/615302 helping to reduce any transport noise and dust concerns.

It should be noted that the EIS map (the attachment) is not correct - the boundary for DP 1/507807 was moved further north as to that shown (ref sub certificate number SC 2021/0050, registered 30/9/2021). This boundary change would alleviate the above alternate route having to cross DP 1/507807. The owners of DP 552/1238818 and DP 551/1238818 have already made arrangements with the quarry proposers to allow the access road to be established across their properties. The alternative shown in the attachment simply moves the route such that it alleviates the issues with the owners of DP 1/15302 albeit requiring work on Deep Creek Bridge.

# 2. Water

All water in the project area drains via Deep Creek to meet the Karuah River.

The EIS details considerable planning to mitigate and attempt to control contamination of groundwater and runoff water into Deep Creek. However, no matter what mitigation attempts are made, all water excess to natural trapped groundwater in the whole extraction area will end up draining via Deep Creek, especially in times of heavy rainfall.

Many documents highlight the potential risks associated with extraction industries of the release of various contaminates including heavy metals and various salt compounds that are certainly not "environmentally friendly" - not just mud and slush.

At the moment, the Deep Creek catchments area is not heavily grazed nor cultivated and Deep Creek is comparatively pristine. The quarry project will certainly change that.

The problem with this proposal being that Deep Creek discharges into the "Port Stephens - Great Lakes Marine Park" area of the Karuah River - right into the "Habitat Protection Zone" section (DPI map of July 2019)

To allow mine (quarry) water to discharge into any marine park "Habitat Protection Zone" is obviously unconscionable. It makes a mockery of the regional council considerations included in the Midcoast Council Rural Strategy "Rural Waterways Background Report version 5 of June 2020".

# 3. Noise

The EIS "models" alone deem that there is no ongoing excess noise issues to surrounding residences. Again I question the validity of these "models" - we have little or no knowledge of these "models" and therefore cannot verify or discredit how they are applied. I can only look at the outcomes of other mines and quarries and how they affect local residences as to noise impacts. An example being a rural property north of Stroud that had to get noise monitoring equipment because of the mining noise from the Duralie Coal mine. This property was tens of Km from the mine with a small mountain between - the noise was a problem even under those conditions. Duralie of course is much larger than this proposal, but the issue highlights the potential noise problems even over considerable distance. Quarry operations into the weekend is one aspect that ought to be curtailed entirely - at least give us some respite.

# 4. Traffic

Unbelievable, again there has been deemed no significant traffic impact to the Bucketts Way. I live here and know the impact of increased holiday traffic alone to The Bucketts Way. Not only damage to the poor quality pavement, especially in wet weather, but to the significant delays at the Highway intersection. I submit that local residents see the problems in real time - not as the "models" would tell us.

Modelling or not, it is obvious that 100 to 200 heavily laden trucks per day or more, 5.5 days per week every week will have a major impact on The Bucketts Way. Attempting to access the highway at The Bucketts Way / highway intersection in holiday times in particular can be a nightmare - the highway traffic often leaves very few gaps to allow safe passage. Much slower and much larger trucks with bogies can only exacerbate this problem with their much slower acceleration and greater length

# 5. Biodiversity

The EIS details in great length the potential effects on the flora and in particular the fauna in the proposed quarry site and surrounds.

I agree with the potential adverse impacts - my property and those in the immediate vicinity extend along ridge lines to the proposed quarry area and seems to act as a wildlife corridor - we have observed koalas, echidnas, many species of parrots, and even a dingo in the area - too many to exist on my property alone. The EIS even acknowledges "the vegetation within the development site constitutes potential koala habitat as defined under the SEPP".

It is impossible, regardless of care taken as proposed, that there will be no or little adverse effects on this regions biodiversity - the fauna will not just "hang about and observe" they will move on. Many of course simply cannot.

No mining operation can coexist with the natural wildlife - mining simply destroys everything, sometimes permanently.

I live here partly because of this amenity, I certainly do not want a quarry that may afford wealth to a very select few to take this away.

Koala population degradation is currently very topical - here is a great chance to help by preventing this development (I use the word development in a cynical sense).

### 6. Quarry expansion

I am very concerned that if this proposal goes ahead it will inevitably expand to a much larger quarry or mine. Adjacent to the proposed quarry area is a small mountain "Ironstone Mountain" that has been the subject of proposed magnetite extraction a number of times over many years. Magnetite is understood to be a valuable mineral and from what I understand, the only reason the extraction did not proceed was that, at the time, with extraction methods available, it was not viable.

If Ironstone Mountain is eventually mined, it will conceivable end up a very large open cut and dirty mining operation making living close by untenable for everyone.

The EIS states "There are no current plans to expand the footprint of the proposed Deep Creek Quarry." "Current" being the keyword here - the quarry proposers have left it open at any time in the future to decide otherwise, or worse still, sell the quarry and surrounding properties to a larger mining operation that can overcome the "unviable" nature of mining this mineral.

I implore the controlling authorities, if the proposal is allowed, to establish enforceable restrictions to limit any quarry or associated future mining operation to that proposed in this EIS.

Jennifer Spiller