I am a landholder directly to the south of the proposed Fifield Bypass and I have a number of objections to the proposals detailed in this modification.

1. Air quality impacts.

I am concerned that the use of the AERMOD model only for estimating the dispersion of toxic gasses from this plant deprives us all, as neighbours to this proposed project, of more established, and perhaps more tested methods of modelling. This aspect of the project is extremely important to neighbours, especially because we are continually told that this project is unique.

The scale of this mine is too great to risk predicting the dispersion of all of the toxic emissions it will generate from one model, which is not yet indorsed by the EPA in this State.

This modification seeks to super-concentrate the HPAL process in order to extract what the proponent hopes will be more copper and nickel by targeting concentrated ore extraction and processing. This will require more sulphur for the production of more sulphuric acid which will lead to a **five-fold** increase in the sulphur dioxide emissions from the stack.

The Ramboll Environ Report 2017 refers to rainfall as a removal mechanism for removing atmospheric pollutants. At a recent town meeting in Trundle, representatives of the proponent scoffed at suggestions that there would be any "acid rain" due to the emissions from the site. The report itself states that the "potential impacts from acid rain are considered insignificant", and that "in the unlikely event acid rain would occur, it would not occur in the vicinity of the modified project" (p33). This last comment in particular is disturbing. Is it better for there to be acid rain in, say, Sydney than in Fifield? Acid rain is acid rain and it is devastating wherever it falls.

Given that the precursors of acid rain are sulphur dioxide and nitrogen dioxide, and that emissions of sulphur dioxide are going to increase more than **five-fold** if this modification gets approved, what assurances are there that this project will not lead to acid rain?

Figures 7-1, to 7-7-5 are exasperatingly difficult to interpret. Figure 7-3 is obviously too small for the dispersion data and so it is impossible to see exactly how far the SO2 will disperse into the neighbouring countryside. What does the number given in the wavy lines represent and where does that number sit in relation to environmental guidelines?

There is no reader-friendly information whatsoever contained in the Ramboll Environ report which would enable a neighbouring landowner not in possession of a chemical engineering background to ascertain what impacts the mine will have on him or her, one's stock, agricultural farming practices, rainwater collection and other aspects of life on a daily and cumulative basis. This modification increases the emission of sulphur dioxide drastically, yet there is nothing to tell landowners, in a way they might understand, what this will smell like, what effects it will have on plant and animal (including human) health, and what assurances there are that the neighbours won't be seriously detrimentally affected, and will have a

clear pathway to compensation if the modelling turns out to be inaccurate or otherwise unreliable.

I am concerned that the technology the proponent proposes to use has not been proven to be environmentally safe. We (the neighbours) are completely at the mercy of the Department of Planning, and the EPA to ensure that the emissions from the site are always kept below the limits which might cause any harm whatsoever to plant and animal life, and the environment in general. This refers to noise emissions as well as dust and gaseous emissions.

The Ramboll Environ report deems the BoM wind data from Condobolin Airport "suitable for modelling", but this presumption is simply inaccurate. I work in Condobolin and live near this project and the wind can be entirely different at each location at any one time.

The activity data (at table 8-2, p34) for the Greenhouse Gas (GHG) emissions is based on incorrect assumptions. The proponent intends to buy-in the limestone from much further afield leading to significantly further travel distances.

The fact that Ramboll Environ is relying on the proponent's emission rates for such crucial aspects of the overall emissions is alarming (table 8-2, p35).

0.2% of all GHG emissions for NSW seems like a huge amount to me (p38). Is this justified?

2. Noise and blasting – Voluntary acquisition provisions.

I am concerned about the comment in the Renzo Tonin report that says, at p29: "From the research on sleep disturbance to date it can be concluded that:

- Maximum internal noise levels below 50-55 dB(A) are unlikely to awaken people from sleep
- One or two noise events per night, with maximum internal noise levels of 65-70 dB(A) are *not likely to affect health and wellbeing significantly"*

Being woken up by a thunderstorm once every six months is completely different from being woken up by mine noise once or twice every night! While the modelling discussed in that report does not indicate exceedances of noise beyond those limits, it is just modelling, and if the noise does exceed the predictions – the voluntary acquisition process needs to be much more robust to protect adjoining landowners from being stuck with devalued property they are unable to sell, and unable to sleep on.

3. Use of ammonia at the site and transport of ammonia.

I am concerned that the drive to use ammonia to create a useful by-product and generate an additional income stream comes at a very high cost in terms of jeopardising the safety of workers at the mine, particularly when transfers to storage vessels are made. Such transfers, assuming each ammonia load is transferred only once, will need to be made three times per day.

4. Traffic through Trundle Town

I am concerned that the proposed increase in heavy traffic through the main street of Trundle due to the off-site sourcing of limestone for the project will have a significant and detrimental impact on the amenity currently enjoyed in the town.

The GTA traffic report does not consider the impact of the proposed increase in traffic on the enjoyment of the town by residents and this is a major failing given the importance of the main street to Trundle. The report states that the modified project will generate an average of 636 vehicle trips per day, with 212 of those being heavy vehicles. That's equivalent to one every 6 minutes, 24 hours per day for heavy vehicles!

The proponent is consulting with the community regarding this traffic flow as it has been the cause of much anxiety amongst townsfolk, which it is keen to address. The proponent has also told the community that the number of light vehicles will be significantly lower than shown in the report due to them proposing to build a remote project hub in Parkes, which will mean that approximately half of the projected vehicle movements through Trundle won't happen. Any modification to the consent should only permit the traffic that the proponent is currently representing to the community.

5. The number of modifications generally

I appreciate that plans change, and that allowances must be made for that. From a community perspective, trying to keep abreast of these changing plans and what they mean for the residents of affected towns and the neighbours of this site is incredibly onerous. The proponent is seeking to give itself so many options, that trying to determine what the impacts will actually be for those affected is impossible. Surely there must be a limit on the number of goes the proponent is going to get at getting this right?

Based on the new technologies proposed and the dangerous chemicals that will be used during the processing, in my view the complete reliance on modelling to predict how this plant will operate and behave is taking far too big of a risk. The proponent should be required to set up a smaller scale pilot plant to determine actual emissions and other disturbances before full scale production with the increased reagents proposed by modification 4 is permitted.