



## **Proposed Grass Valley Quarry**

### **Summary of New Supporting Documentation**

In response to the Environment Convenors WA report of November 2020, page 4, 'Grounds of Appeal', we have set out below Resource Group's reply in the order of its original presentation. Additionally, there are a number of reports attached from consultant who are experts in their respective fields. These reports are referenced throughout this document.

#### **GROUND 1: NOISE**

It has been determined by the Convenor that the Land Owners residence (NSR1) should be included in the site noise calculations. NSR1 was 300 metres from the original Southern boundary of pits 1 and 2 and therefore received noise levels in excess of the required 45dBa limit. The decision was taken by Resource Group to delete pits 1 and 2 from the operation because of this. Therefore pit 3 now becomes the first pit of operation.

Resource Group commissioned WOOD Noise Consultants to prepare an Acoustic Assessment taking into account this new information. NSR1 is 560 metres distant from the Southern boundary of pit 3. Without mitigation NSR1 was deemed to receive noise at a level of 44.5dBa with Neutral Meteorological conditions and 49.8dBa in the worst conditions, this latter result being 4.8dBa above the required limit. It should be noted at this point that the 'worst meteorological conditions' affecting NSR1 occur when the wind is a few degrees West of North, i.e, somewhere between NNW and North.

The WOOD report suggests various methods of noise mitigation (as per CI 4.1.1 & 4.1.2), and when these controls are in place the noise level at NSR1 given worst case meteorological conditions is below the required 45dBa requirement.

Resource Group has previously committed to only crushing during the months of April through November so as to take advantage of more moderate conditions than those of December through March.

Reference is made here to the attached Air Quality Impact Assessment (AQIA) as prepared by SLR, (P32.Clause 6.4.1. Wind Speed & Direction 2<sup>nd</sup> para.). This clause states that in Autumn the prevailing winds are derived from the Eastern quadrant, whilst in Winter it predominantly blows from the Northwest and in Spring from the South.

Note: Review of the site location plan indicates that none of the prevailing winds during Autumn, Winter or Spring actually have any effect on NSR1. As previously explained the only wind which can impact on NSR1 is from between the NNW to North sectors. On the few days that this event occurs during Winter, Resource Group will monitor noise at NSR1 to ensure compliance and take action accordingly in the remote chance it exceeds the



permitted level. Actions will include either shutting down the pit operations, the crushing plant, or both.

As can be seen from table 4.3 - Predicted Noise Levels at NCR's (p9), the results for NSR 2 & 3 are both well below the 45dBa maximum allowed level.

Road trucks have not been considered in this report because;

1. Clydesdale Road which passes by all three NSR's is an MRWA designated truck route. As such trucks of various descriptions are permitted to travel along it at all times of the day and night. Resource Group gave an undertaking in the early part of the negotiation with Northam Shire over the Development Application not to travel past the NSR's with its own fleet of trucks even though it is an MRWA approved truck route. For the record NSR2 is only 260 metres from the GEH and its inherent traffic noise and is more likely to be impacted by that positioning rather than anything generated by the proposed quarry.
2. All trucks arriving and leaving the quarry turn left and travel East away from the NSR's moving towards Watson Rd to then gain access onto the Great Eastern Highway (GEH) and thence onwards to Perth.

## **GROUND 2: AIR QUALITY**

Two questions are raised by the Environmental Convenor in the report of November 2020 regarding Air Quality. They are:

1. Concerns that respirable crystalline silica (RCS) may travel to the NCR's.
2. The belief that mitigating actions might not be kept up.

#1. Reference is made to the SLR Air Quality Impact Assessment (AQIA) dated March 2021, page 43, Section 9 - Conclusion. Set out in this section are the summaries of the various results taken from the modelling. Without going into too much detail here it can be seen that in all cases that there are no incidents of excessive RCS expected to occur at any of the NCR's. Data supplied with regards to predominant wind direction on page's 32 and 33 during the various seasons support the above as commented above in GROUND 1: NOISE.

Additionally, further supporting information is contained in Section 8 – Management and Mitigation (p41-42). This section steps out all the mitigation factors considered important to ensure the compliance with the relative standards pertaining to RCS.

These mitigation factors revolve primarily around the use of high-pressure water sprays as the key element in containing any fugitive dust that may occur. This practice is common in quarrying and mining however in the case of RCS it is doubly important. Reference is made to the Position Paper produced by the Australian Institute of Occupational Hygienists, February 2007, RCS and Occupational Health Issues (attached). In this paper it refers to Hazards associated with RCS (p9). The 4<sup>th</sup> bullet point of the discussion mentions that 'free radical' fragments produced by freshly fractured and aged surfaces decay with time in air through aging. It goes further to say that this process is rapid when water is used to contain it. This further supports the use of water sprays as a control for fugitive dust.



#2. With regard to mitigation being maintained we make the following comment. Holcim (Aust) is the preferred quarrying contractor for this operation. This Company is part of an organisation known as LaFarge-Holcim, the largest cement, quarrying and concrete supply company in the World. As such they have in place the required processes and procedures to ensure that all WA State Legislation and local laws governing Mining, Environment and Health are adhered to. Holcim (Aust) have a “Duty of Care” to ensure primarily that their workers are safe from any harm whilst working at the quarry. Secondly, they also have the same responsibility to anyone residing near or beyond the quarry. Holcim (Aust) take this responsibility seriously as only a Company of its size and resources can.

To ensure compliance Holcim (Aust) have designed an OH&S platform which covers every eventuation that may occur. These procedures will be in place on site and everyone working on the site will be trained in their application. Further these procedures are part of the ISO/Au/NZ quality plan and subject to weekly/monthly local checks, 3 monthly audits by persons not associated with the quarry and then yearly audits by the relevant accredited body (NATA) for the licensee to operate under an approved scheme. All this overlaps Holcim (Aust) own internal safety plan which runs in parallel. A full copy of the onsite safety plan is attached.

Given the need to ensure that the external and internal plans covering the workers safety need to be met to ensure Holcim (Aust) meets its Duty of Care, there will be in place a series of ongoing checks and balances to ensure that the mitigation controls are maintained at all times. Additionally, the EPA and WorkSafe carry out random inspections to ensure compliance further ensuring that the mitigation efforts are ongoing. As such there will not be any dust level exceedance at any NCR as reported in the AQIA document, Section 9 – Conclusion (p43).

### **GROUND 3 INLAND WATERS**

As they produced the original report Resource Group again enlisted Water Technology to provide a second Water Management Assessment (attached) on the proposed Grass Valley quarry.

The Environmental Convenors report identified three issues with regards to the Inland Waters topic, being:

1. Impact of water resource on neighbouring land
2. Concerns old well may be impacted

#1. The Water Technology Water Management Assessment (the report) advises in section 4.3 Potential Impacts (p14), that fuels and oils will be stored in self bunded containers. Vehicles will be refuelled and serviced on a purpose-built hard stand and wash down facility complete with drainage and water traps. Spillage kits will available. Any contaminated spillage kit material will be removed from site by a licensed operator and deposited at a licensed receival unit. Water traps will contain any runoff, then are pumped out and the residue removed from site. The service area is located behind the weighbridge office and is far removed from any drainage channels.



The report also calls for diversion channels, bunding and sediment ponds to control water run off (pages 15-20). In this section the report lays out the various means of mitigation to ensure that sediment is trapped and controlled on site. In this manner there is little chance of sediment cascading down the water course into neighbouring lands as currently occurs due to any controls not being in place.

#2. The old Well is of little value to the State or Local Government as it has never been listed anywhere as 'Historic'. Neither has it been used in over 50 years. Given the well's proximity to the water course, it fill's from time to time after heavy rain when the water level cascades over its edge. When this occurs silt and other detritus also inundates the well. With the complex of drains, bunds and silt traps to be built when the operation proceeds this flow of detritus into the well will be severely curtailed, a far better outcome than what is occurring now.