From: MILLET Chris P [mailto:Chris.MILLET@rms.nsw.gov.au]
Sent: Wednesday, 3 December 2014 1:43 PM
To: Phillipa Duncan
Cc: information@planning.nsw.gov.au information
Subject: Gunlake Quarry - Modification 2 Quarry Expansion - Goulburn Mulwaree LGA (RMS ref: STH09/01940)

Hi Phillipa

Reference is made to the subject modification.

RMS has reviewed the information submitted and undertaken traffic surveys around the development to better understand existing traffic movements. The following comments are provided for your consideration:

- RMS undertook traffic surveys at the location shown in the attached plan. The results of the survey are attached.

- RMS' concerns relate to the left turn movement from Red Hills Road onto the Hume Highway.

- The developers report claims that the proposal will increase laden truck movements from 2.0 trucks per hour (on average) to 3.4 vehicles per hour (on average).

- RMS considers that it is more appropriate to consider peak truck movements. The attached survey data indicates that the peak movements for the left turn movement from Red Hills Road onto the Hume Highway are much higher. If you focus only on the heavy vehicles within classifications 9 and 10 (as attached), then the peak hourly volumes are in the order of 7-11 vehicles per hour. This range of movements for the peak is reached on 9 of the 12 surveyed days.

- These volumes are compared to the other survey locations in the table below.

Date	Day	Time	One way peak hour volumes (classifications 9 & 10 only)		
			Redhills Road Northbound (or eastbound)	Brayton Road eastbound (east of Gunlake Quarry)	Brayton Road (South of Merino Road)
10/11/2014	Mon	2:00 PM	5	4	6
11/11/2014	Tue	6:00 AM	8	5	5
12/11/2014	Wed	12:00 PM	7	6	2
13/11/2014	Thu	6:00 AM	11	11	10
14/11/2014	Fri	6:00 AM	8	8	10
15/11/2014	Sat	10:00 AM	3	4	1
15/11/2014	Sun		0	0	0
17/11/2014	Mon	6:00 AM	8	8	6
18/11/2014	Tue	11:00 AM	8	9	3
19/11/2014	Wed	11:00 AM	8	0	4
20/11/2014	Thu	10:00 AM	8	8	4
21/11/2014	Fri	6:00 AM	10	8	5

- Based on the traffic data obtained RMS considers that the increases in truck movements and their impact on the network need to be reconsidered.

- RMS notes that the SIDRA analysis identified that the future delays for the left turn movement from Red Hills Road onto the Hume Highway are likely to be under 10 seconds. RMS questions whether these predictions are correct. RMS does not have any data relating to the delays vehicles are experiencing for this movement in the current conditions however observations at other junctions along the Hume Highway in the past would indicate the average delay would be considerably longer. RMS considers that the existing delays at the junction need to be quantified to allow the model to be properly calibrated. This should be done for vehicle classifications 9 and 10. It should include at least 10 observations which coincide with peak movements on the Hume Highway.

- Electronic copies of the SIDRA modelling need to be provided to RMS for verification.

- RMS notes the reports indicates that the two through lane environment on the Hume Highway means that through movements are not disadvantaged by slow moving trucks entering from Red Hills Road. This may be the case, but should be substantiated with evidence. RMS considers that the key issue is whether or not through vehicles are having to slow down excessively in order to change lanes and pass slow moving trucks. This could be quantified by speed counts in both lanes, placed before and after the intersection. If vehicles are having to slow down excessively it would have the potential to create a serious safety concern.

RMS considers that the above issues need to be addressed.

Chris Millet Manager Land Use Southern Region

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Note: For the Red Hills Road traffic data, the survey refers to northbound and southbound flows. The northbound traffic is effectively the eastbound traffic, while the southbound traffic is the westbound traffic.