Richmond Valley Council Comments on Appendix C - Moonimba Borrow Site Traffic Impact Assessment

EXECUTIVE SUMMARY

Despite the adequate operational capacity of the local network, the cumulative impacts generated by the surrounding quarries in conjunction with the Moonimba Borrow site, will warrant temporary traffic management at the Woodburn-Coraki Road - Pacific Highway intersection, for the duration of the W2B construction works.

- The cumulative impacts of traffic generated by surrounding quarries have failed to look at all turn movements at the intersection of Reardons Lane and Woodburn Coraki Road.
- When assessed in relation to Austroads AGRD04A, this intersection would warrant a channelised treatment for right turning traffic into Reardons Lane from Woodburn Coraki Road.

1 INTRODUCTION

1.2.1 SITE ACCESS

The existing haulage route (refer to Figure 1-7) passes through eight intersections, on the approach to the Pacific Highway in Woodburn.

- There is no Figure 1-7 within the report. The Haulage route is shown in Figure 1-6.

1.3 TRAFFIC AND TRANSPORT IMPACT ASSESSMENT – GREG ALDERSON AND ASSOCIATES (GAA 2014)

The study was conducted in accordance with the Guide to Traffic Generating Development Version 2.2 of 2002 as well as AUSTROADS standards where appropriate

- The Guide to Traffic Generating Development version 2.2 (2002) has a chapter called “Section 4 Interpretation of Traffic Impacts”. One of the sub sections of this chapter is Section 4.5 Impact on Road Pavement. This section outlines considering the visual condition, the structural capacity, the pavement depth and roughness and the rut depth when assessing existing road pavements.
- The heavy vehicle usage associated with the construction of the Pacific Highway upgrade has seen the condition of the existing pavement ~~is~~ deteriorate much faster than the normal rate expected.
- Council’s repair program would ~~of~~ have repaired 1km sections of Woodburn Coraki Road each year, spreading the financial impacts over a 20 year period. The increase in heavy vehicle usage of Woodburn Coraki has accelerated the timeframe for repairs beyond existing budget allowances.

2 EXISTING CONDITIONS

2.1 ROAD NETWORK

No further assessment of the Woodburn Coraki Road and Reardons Lane intersection has been undertaken as a part of this proposal. Whilst the conditions from DA2015/0069 are

mentioned, these conditions were formulated on the 2014 traffic report prepared for that development where 90,000m3 was the extraction limit. The difference based on the increase in traffic involved in extracting 400,000m3 would warrant looking at all intersection legs.

2.2 TRAFFIC COUNTS

The traffic data presented in the 2014 does not reflect the current situation. Whilst the change in the current traffic is mentioned, the 2014 traffic numbers used wouldn't warrant any improvements, but using the 2017 traffic numbers would warrant intersection improvements.

2.4.1 ASSUMPTIONS

6. A Road Safety Audit will not be performed for the study area. The results from the RSA undertaken for the TTIA (Greg Aldersons & Associates, 2014) will remain applicable to the haulage route.

- Richmond Valley Council believes that since the 2014 Road Safety Audit by Greg Alderson and Associates was completed, the conditions along Woodburn Coraki Road have changed in the last 3 years such that an updated Road Safety Audit is warranted.

7. Potential upgrades to the haulage route have been considered by Richmond Valley Council. It has been acknowledged that the severe storm events within the region warrant adequate maintenance and upgrade of the haulage route, particularly Woodburn-Coraki Road.

- The potential upgrades to the haulage route were considered by Council using the data provided from a 2014 Traffic Assessment as part of assessing DA2015/0069.
- The traffic along Woodburn Coraki Road has changed significantly since 2014 which would now warrant additional treatments not originally specified.

5 IMPACTS

5.1 SUMMARY OF PRELIMINARY IMPACTS

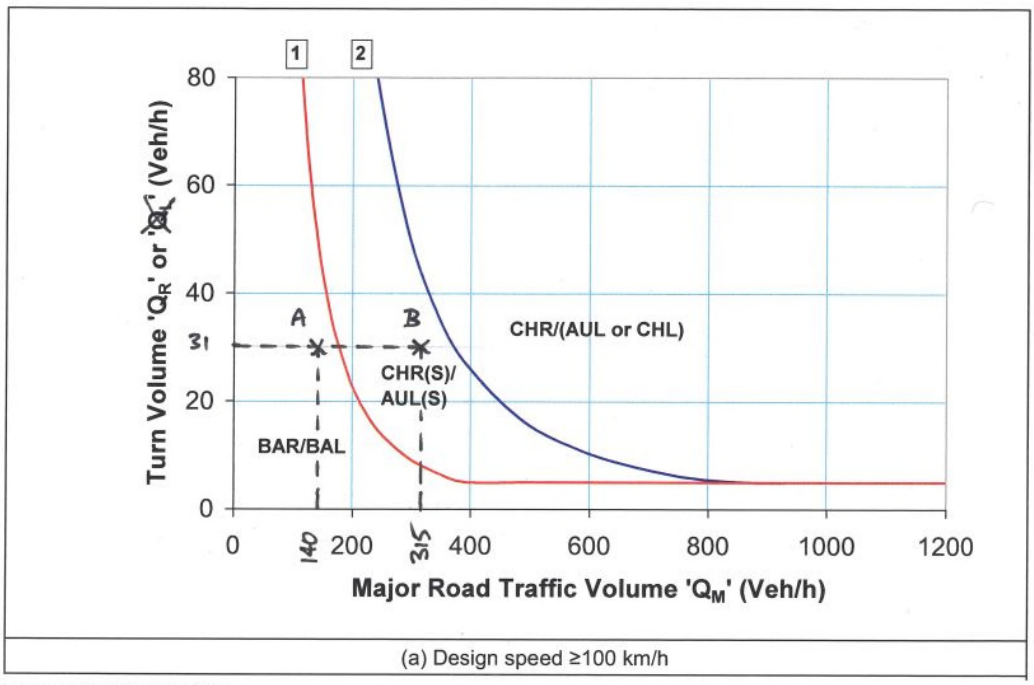
The impact of the trucks returning to the Moonimba Borrow Site have not been addressed at the Reardons Lane and Woodburn Coraki Road intersection.

5.2 TURNING VOLUMES AND TRAFFIC IMPACTS

Similarly to the assessment undertaken at the Pacific Highway and Woodburn Coraki Road intersection, the intersection at Woodburn Coraki Road and Reardons Lane demonstrates that an improvement to this intersection is also required.

Using Austroads Figure 4.9 – Warrants for Turn Treatment and data provided in Moonimba Borrow Site Traffic Impact Assessment Figure 5.4 Stick Diagram, traffic turning left out of Reardons Lane (Q_R = 31 vph) and existing Woodburn Coraki Road daily traffic Q_M = 140vph, the intersection can function without any modifications (Shown as "A" on Austroads Figure 4.9).

With an increase in traffic numbers along Woodburn Coraki Road Q_M = 315vph (15% of the AADT 2100) it can be seen that the graph now indicates that an improvement is required (Shown as “B” in Austroads Figure 4.9).



(a) Design speed ≥100 km/h

Source: Arndt and Troutbeck (2006).

Figure 4.9: Warrants for turn treatments on the major road at unsignalised intersections

Traffic movements through this intersection are impacted by:

- Additional heavy vehicles travelling from Coraki Quarry
- Longer waiting times for turning traffic that need to give way to approaching heavy vehicle traffic decelerating to turn left into Reardons Lane
- Slow moving trucks that are accelerating out of Reardons Lane into Woodburn Coraki Road.

All of the traffic numbers outlined in this report do not include the traffic numbers for heavy vehicles arriving or departing the site at the beginning and end of the working day.