



4 February 2015

Planning Services
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Executive Director – Resource Assessments

Dear Mr Freeman

Re: SSD 14_6422 Teven Quarry Environmental Impact Statement (EIS)
Lots 1, 2 and 3 DP 732288, No.'s 129 – 181 Stokers Lane, Teven

I refer to the abovementioned proposal for which the Minister for Planning (Planning Assessment Commission) is the consent authority due to the total resource extraction exceeding 5 million tonnes for the following:

- (a) Increasing the production limit of an existing hard rock quarry from 265,000 to 500,000 tonnes per annum for 30 years.
- (b) Extension of hours of operation (some operations until 10pm).
Extended hours to be used only for:
 - o Product loading and transport.
 - o Stockpile management.
 - o Maintenance, repairs, cleaning of machinery.
 - o No crushing/screening, in pit loading, overburden management, drilling or blasting to occur during extended hours.
- (c) Additional processing options.
- (d) No increase to quarry footprint.
- (e) Use of mobile crushing plant on site to cater for periods of peak production in excess of fixed plant capacity of 350,000 per annum.
- (f) Use of mobile pug mill on site when required to expand range of products produced.
- (g) Concrete recycling facility for up to 10,000 tonnes per annum.

It appears that the matters previously raised by Council via letter of 28 March 2014 as part of the Director-General's Requirements have been addressed in the EIS, however Council provides the following specific comments for consideration prior to any determination.

Zoning

It is noted that the northern portion of the site(s), (i.e. where the majority of the operations are proposed to occur) is zoned RU1 Primary Production under the Ballina Local Environmental Plan 2012 (BLEP 2012), whilst the southern portion of the site(s) is a deferred matter and therefore zoned 1(e) Rural – Extractive and Mineral Resources under the Ballina Local Environmental Plan 1987 (BLEP 1987).

Whilst an “extractive industry” is permissible and the definition generally covers the range of proposed uses within the RU1 zone, it should be noted that an “extractive industry” as defined under the BLEP 1987 through the adopted Model Provisions 1980 is more limited.

Despite this, if the activities associated with the proposed concrete and asphalt production were conducted on the northern portion of the site(s), i.e. within the RU1 zone, no permissibility issues are evident.

Potential Noise/Amenity Impacts

The existing operation is and will continue to be licenced by the NSW Environmental Protection Authority (EPA). It is noted that the NSW EPA as part of the current proposal will also undertake an assessment and will issue comments. If approved, conditions of consent will also be imposed and the operations will be regulated through an Environmental Protection Licence.

Notwithstanding this, Council has considered the proposal in relation to environmental health requirements and is satisfied to leave the general regulatory assessment in relation to monitoring and reporting, dust and acoustic matters to the ARA, being the NSW EPA.

If approved, Council would recommend the incorporation of the following consent conditions (or similar):

External Lighting

All external lighting to be installed and operated on site shall comply with the AS 4282:1997 “*Control of the Obtrusive Effects of Outdoor Lighting*”.

Environmental

Clean up equipment including suitable absorbent material shall be stored on site to effectively deal with liquid contaminates such as oils and chemical spills.

All plant and equipment installed or used in or on the premises shall be maintained in a serviceable condition and operated in a proper and efficient manner at all times.

All liquid chemicals, fuels and oils shall be stored in tanks or containers inside suitable bund(s). Bund(s) are to be designed, constructed and maintained in accordance with AS 1940-2004 storage and Handling of Flammable and Combustible Liquids.

Waste

Hazardous and/or industrial waste arising from the operational activities must be stored, transported and disposed of in accordance with the requirements of NSW EPA and the NSW Work Cover Authority pursuant to the provisions of the following:

- (a) Protection of the Environment Operations Act 1997
- (b) Protection of the Environment Operations (Waste) Regulation 2005
- (c) Waste Avoidance and Resource Recovery Act 2001
- (d) New South Wales Work Health & Safety Act 2011
- (e) The Work Health & Safety Regulation 2011

Traffic Generation and Assignment Projections in EIS

Estimated traffic volumes are provided in the EIS in Tables 7.17, 7.18 and 7.19 are reproduced in this assessment.

The predicted allocation of traffic is shown in Figure 3 of the Traffic Impact Assessment which is Appendix 7 of the EIS, which also advises:

Figure 3 shows the proposed transport routes for the Project. The existing main transport routes for quarry trucks include:

- Route 1 - Stokers Lane, south along Teven Road to Bruxner Highway and then west towards Lismore and or east, to travel to the Pacific Highway (for trips north or south) or to Ballina (east) via River Street.
- Route 2 - Stokers Lane, north along Teven Road to Tintenbar Road and then north along Tintenbar Road to Tamarind Drive to travel west, north or east.

Currently, approximately 70% of product travels on Route 1 and 30% of product on Route 2.

Most of the product travelling on Route 2 is for local deliveries and road upgrade works to the north around Tintenbar.

Under the Project, it is proposed to use Route 1 for all product trips to the Pacific Highway to travel north (including future highway upgrading works). Therefore, Route 1 would accommodate approximately 95% of all product trucks while Route 2 would become a local route only, with approximately 5% of product trucks using this route for local deliveries only.

Table 7.17 – Predicted Increase in Average Daily Traffic Volumes

	Existing Approval 265,000 tpa		Project 500,000 tpa		Difference	
	Loads	Two Way Trips	Loads	Two Way Trips	Loads	Two Way Trips
Product Trucks	39	78	73	146	+34	+68
Light vehicles	30	60	35	70	+5	+10

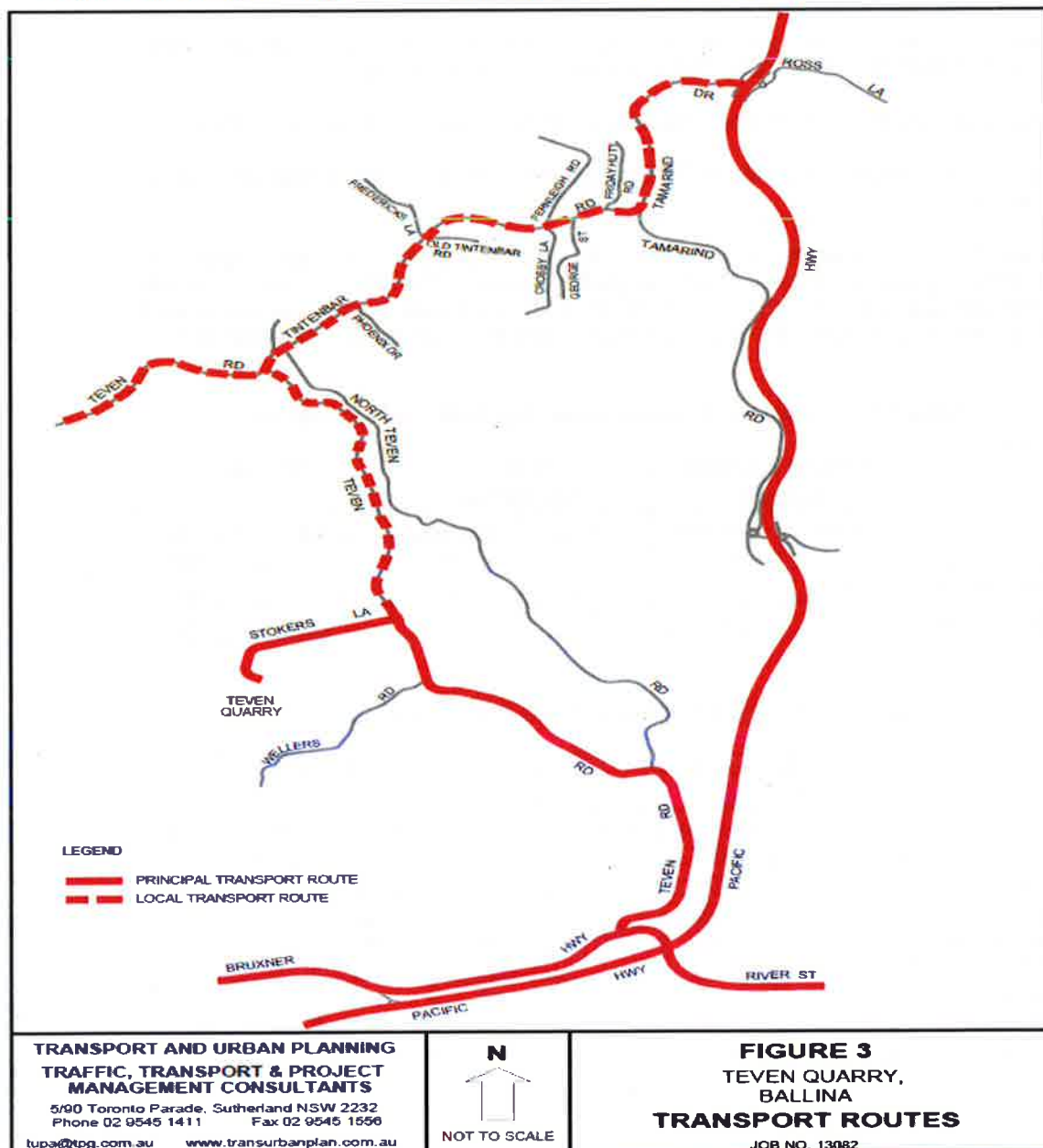
Table 7.18 – Predicted Increase in Hourly Traffic Volumes

	Existing Approval 265,000 tpa		Project 500,000 tpa		Difference	
	Loads	Two Way Trips	Loads	Two Way Trips	Loads	Two Way Trips
Average Hour	5	10	7	14	+2	+4
Busy Hour	8-10	16-20	10	20	+2	+4
Maximum Hour (7.00am – 6.00pm)	12	24	12	24	Nil	Nil
Maximum Hour (6.00pm – 10.00pm)	-	-	6	12	+6	+12

Table 7.19 – Future Weekday Two Way Traffic Volumes

Location	Existing Traffic Volume	Project Additional Volume
	Total Volume (heavy vehicles)	Total Volume (heavy vehicles)
Stokers Lane	205 (115)	78 (68)
Teven Road (north of Stokers Lane)	693 (203)	-18 (-18)
Teven Road (south of Stokers Lane)	760 (246)	96 (86)
Bruxner Highway (west of Teven Road)	- ¹	16 (12)
Bruxner highway (east of Teven Road)	- ¹	80 (74)
Pacific Highway (north of Bruxner Highway)	- ¹	50 (50)
Pacific Highway (south of Bruxner Highway)	- ¹	6 (6)
River Street (east of Pacific Highway)	18,243 (1,558)	24 (18)

¹ - Daily traffic counts not completed. Hourly counts for relevant intersections indicate high traffic volume roads.



Comments on Traffic Generation and Assignment Projections in EIS

Based on the EIS projections, because of the change in delivery route allocation by the proponent (from 70/30 to 95/5 for Route 1/Route 2) there will be a net decrease on Route 2 (to the north) and a significant net increase on Route 1 (to the south).

Of some concern is that Figure 3 shows Teven Road west of Tintenbar Road being a local transport route, but the submitted traffic volumes do not identify traffic (from the development) on this route. This matter is raised as the section of Teven Road, west of Tintenbar Road is steep and windy, has a poor accident record (including a recent head on fatality) and nearby residents report significant usage by Holcim delivery trucks, however impacts on this road are not addressed by either "Appendix 7 - Traffic Impact Assessment for Teven Quarry" and were not included in the scope "Appendix 8 - Road Safety Audit" Tintenbar Road east of Teven Road.

Further clarification should be requested for the market projections and delivery route assumptions that support the figures and route allocation apportionment provided by the proponent in EIS Appendix 7 including Tables 7.17, 7.18 and 7.19, an assessment of the current and projected traffic volumes on Teven Road west of Tintenbar Road and a revision of the scope of "Appendix 8 - Road Safety Audit" to include the section of Teven Road west of Tintenbar Road.

Comments on traffic generation impacts on S94 contributions are provided in the Contributions section of this assessment.

Assessment of Project Traffic Capacity Impacts in EIS

Based on analysis of route road capacities and SIDRA analyses of key intersections of the impacts of Project generated traffic, "Appendix 7 - Traffic Impact Assessment for Teven Quarry", concludes that "the impacts of the additional traffic generated by the Project on the road network are expected to be satisfactory". This analysis is supported, there is adequate demonstrated capacity on the rural road network for the additional vehicles generated by the project and the SIDRA analysis shows no significant delays or queueing at impacted intersections arising from the additional vehicle movements generated by the project.

Assessment of Road Safety Impacts in EIS

Section 3.5 of "Appendix 7 - Traffic Impact Assessment for Teven Quarry" refers to the findings of Appendix 8 Road Safety Audit which recommended:

- Transport Route 1 which includes Stokers Lane, south along Teven Road to Bruxner Highway and then west towards Lismore and or east to travel to the Pacific Highway (for trips north or south) or to Ballina (east) via River Street should be maintained as the principal transport route from Teven Quarry including the route for any deliveries associated with future upgrading works associated with the Pacific Highway.
- Transport Route 2 which includes Stokers Lane, north along Teven Road to Tintenbar Road and then north along Tintenbar Road to Tamarind Drive should be maintained as a local route only and be restricted to local deliveries (ie. approximately 5% of deliveries).

- For Transport Route 1, improved delineation in Teven Road between Stokers Lane and Bruxner Highway is recommended due to the proposed special circumstances night time haulage. This includes:
 - (i) Centreline markings in Teven Road between Stokers Lane and Bruxner Highway including the maintenance of the existing linemarking (where required) in Teven Road.
 - (ii) Provision of reflectors on the existing guardrail fencing at the intersections of Stokers Lane and Wellers Road, with Teven Road.
 - (iii) Maintenance of existing end treatment of guardrail in Teven Road at Stokers Lane.

In Section 7.7.4 of the EIS, there is an undertaking that "Holcim Australia will implement the recommendations of the Road Safety Audit".

These findings and undertaking are supported and should be incorporated into the conditions of consent and statement of commitments as applicable.

However, as advised previously, the scope of "Appendix 8 - Road Safety Audit" should be expanded to include the section of Teven Road west of Tintenbar Road and further road safety recommendations/conditions/commitments could arise from this expansion of audit scope.

Road Maintenance Contributions

Applicant's Proposal

The current S94 heavy haulage road maintenance contribution is \$0.345/tonne.

The current contribution under "Ballina Shire Heavy Haulage Contributions Plan 2011" is:

Contribution per tonne = \$0.053/tonne/km x 12km (average haul length) = \$0.636 per tonne
Plus plan preparation and administration costs (1.5%) = \$0.0095
Total = \$0.6455 per tonne
Subject to cpi adjustment = $0.6455 \times 106.6/99.9 = \0.6888 per tonne
(base index September 2011 and Current index September 2014)

The Contribution Plan however has an alternative methodology on page 14 that advises:

Council however may at its discretion use a different travel distance for the purpose of this formula where there is sufficient evidence provided or obtained that indicates that there is a significant difference between the typical/average travel distance and the standard 12 km assumed travel distance.

The applicant argues that based on the change in delivery route allocation by the proponent (from 70/30 to 95/5 for Route 1/Route 2) the average weighted travel distance of Holcim delivery trucks on Council roads will be 5.99 km ($0.95 \times 5.8 \text{ km} + 0.05 \times 9.6 \text{ km} = 5.99 \text{ km}$) compared to the 12km average assumed in the under "Ballina Shire Heavy Haulage

Contributions Plan 2011". Based on 5.99 km the proponent provides a calculated figure of \$0.317 per tonne.

The applicant then proposes that the contribution rate for the new development be continued at their calculation of the current rate of \$0.345 per tonne.

Examination of the applicant's calculations:

(i) Apportionment of loads to Delivery Routes

The applicant advises 95% of deliveries will be on Route 1 and 5% will be on Route 2. No data on market projections to support this assumption have been provided. Also the 95/5 split ignores "local deliveries". Further information is therefore needed to validate this route allocation assumption.

(ii) Measured Lengths of Route 1 and Route 2

Checking on Council's GIS the measured lengths of local roads (as defined in the Section 94 Plan) on the routes are:

Route 1 - 5.9 km (applicant's measurement 5.8 km)

Route 2 - 9.8 km (applicant's measurement 9.6 km)

(iii) Weighted average Haul

Accepting the applicant's 95/5 Route 1/Route 2 apportionment.

Based on applicant's route measurements

$$0.95 \times 5.8 + 0.05 \times 9.6 = 5.99 \text{ km}$$

Based on Council route measurements

$$0.95 \times 5.9 + 0.05 \times 9.8 = 6.10 \text{ km}$$

(iv) Contribution calculation based on weighted average haul

Accepting the applicant's 95/5 Route 1/Route 2 apportionment.

Based on 5.99 km and applying indexation:

$$\text{Contribution} = \$0.6888 \times 5.99/12 = \$0.3438 \text{ per tonne}$$

$$\text{Without indexation} = \$0.6455 \times 5.99/12 = \$0.3222$$

Based on 6.10 km and applying indexation:

$$\text{Contribution} = \$0.6888 \times 6.10/12 = \$0.3501 \text{ per tonne}$$

$$\text{Without indexation} = \$0.6455 \times 6.10/12 = \$0.3281$$

The applicant's calculation of \$0.317 per tonne (page 20 Appendix 7, Traffic Impact Assessment for Teven Quarry") seems low and may not include indexation or the plan preparation and administration costs included in the S94 Plan (1.5%).

Comments on the Applicant's Proposal

Whilst the applicant's proposal is generally consistent with the provisions of the alternative methodology on page 14 of the "Ballina Shire Heavy Haulage Contributions Plan 2011", a lower contribution (than the standard based on this methodology of \$0.6888 per tonne plus indexation) is not supported at this time as there is insufficient data provided to support the

route allocation (95%/5%) assumption. The route allocation assumptions would also need to be supported by conditions of consent that ensures the applicant's advice/undertaking on page 5 of "Appendix 7 - Traffic Impact Assessment for Teven Quarry" that "it is proposed to use Route 1 for all product trips to the Pacific Highway to travel north (including future highway upgrading works)".

Recommendations

1. Road Safety Audit and Recommendations

Implementation of Appendix 8, Road Safety Audit Recommendations below, and any additional recommendations arising from an expansion of Road Safety Audit scope to include Teven Road west of Tintenbar Road (see Point 3 below), should be included as conditions of consent and also be included in any statement of commitments.

Road Safety Audit Recommendations

- Transport Route 1 which includes Stokers Lane, south along Teven Road to Bruxner Highway and then west towards Lismore and or east to travel to the Pacific Highway (for trips north or south) or to Ballina (east) via River Street should be maintained as the principal transport route from Teven Quarry including the route for any deliveries associated with future upgrading works associated with the Pacific Highway.
- Transport Route 2 which includes Stokers Lane, north along Teven Road to Tintenbar Road and then north along Tintenbar Road to Tamarind Drive should be maintained as a local route only and be restricted to local deliveries (ie. approximately 5% of deliveries).
- For Transport Route 1, improved delineation in Teven Road between Stokers Lane and Bruxner Highway is recommended due to the proposed special circumstances night time haulage. This includes:
 - (i) Centreline markings in Teven Road between Stokers Lane and Bruxner Highway including the maintenance of the existing linemarking (where required) in Teven Road.
 - (ii) Provision of reflectors on the existing guardrail fencing at the intersections of Stokers Lane and Wellers Road, with Teven Road.
 - (iii) Maintenance of existing end treatment of guardrail in Teven Road at Stokers Lane.

2. Section 94 Heavy Haulage Contributions

Whilst the applicant's heavy haulage contribution proposal is generally consistent with the provisions of the alternative methodology on page 14 of the "Ballina Shire Heavy Haulage Contributions Plan 2011", a lower contribution (than the standard based on this methodology of \$0.6888 per tonne plus indexation) is not supported at this time as there is insufficient data provided to support the route allocation (95%/5%) assumption. The route allocation assumptions would also need to be supported by conditions of consent that ensures the applicant's advice/undertaking on page 5 of "Appendix 7 - Traffic Impact Assessment for Teven

Quarry" that "it is proposed to use Route 1 for all product trips to the Pacific Highway to travel north (including future highway upgrading works)".

3. Further information is required from the applicant that will:

- (a) Validate the market projections and delivery route assumptions that support the figures and route allocation apportionment (95% of deliveries will be on Route 1 and 5% will be on Route 2) provided in EIS Appendix 7 including Tables 7.17, 7.18 and 7.19, and
- (b) Provide an assessment of the current and projected traffic volumes on Teven Road, west of Tintenbar Road; and
- (c) Provide a revision of "Appendix 8 - Road Safety Audit" with additional scope to include the section of Teven Road west of Tintenbar Road.

Rehabilitation

Upon review of the previous DA 1995/263 consent and attendant Plan of Management (as amended) for the site(s) it is evident that some of the restoration goals have not been satisfied to date. Council will be attempting to resolve this issue through its compliance section.

Notwithstanding this, Council is generally satisfied with the current proposal noting that further specific comments will be provided in the proposed formation the detailed Quarry Closure Plan.

Bush fire

The applicant has noted at Section 7.13.2 various bush fire management measures. General Terms of Approval should be obtained from the NSW Rural Fire Service.

If you have any enquiries in regard to this matter please contact Anthony Peters on 02 88861 254.

Yours faithfully



Rod Willis
Group Manager
Development and Environmental Health

