

9 April, 2017

The Director,
Resource Assessments,
Department of Planning and Environment,
GPO Box 39,
Sydney NSW 2001

Re: SUBMISSION by VOWW - SSD 5899 - Brandy Hill Quarry Expansion

Dear Director,

Abbreviations

BHQ - Brandy Hill Quarry
BH Drive - Brandy Hill Drive, Brandy Hill
EIS - Hanson's Environmental Impact Statement
Hanson - Hanson Heidelberg Cement Group / Hanson Construction Materials Pty Ltd
LGA - local government area
Proposal - the development application made by Hanson to expand its BHQ extractive industry extraction area and increase its rate of production to 1.5 million tonnes per annum and to continue operations for another 30 years
PS - Port Stephens
SOC - Statement of Commitments
TIA - Traffic Impact Assessment
VOWW - Voice of Wallalong and Woodville Inc.

INTRODUCTION

The community group Voice of Woodville Wallalong Inc. was formed as an incorporated association on 30 November 2012. One of its aims is to actively represent the communities of Woodville, Wallalong and surrounding villages' interests on issues relevant to its vision in dealing with government and community stakeholders, giving a real collective voice to those communities

on matters affecting their future. It has since formed subcommittees for residents of Brandy Hill and Seaham/Nelson Plains.

Hanson proposes a 24/7, all day, all night operation, for both production and sales at its BHQ.

The sales aspect involves the transportation of gravel and concrete over the local road network mostly

- a. BH Drive, Seaham Road in Nelson Plains;
- b. Clarence Town Road in Seaham and Woodville;
- c. High Street, Wallalong.

All these public roads are within the PS LGA.

The EIS advises that the main haulage route will be easterly upon BH Drive and Seaham Road; the secondary one is westerly on Clarence Town Road down to the single lane wooden Dunmore Bridge at Woodville; and, after leaving Clarence Town Road, southerly down High Street at Wallalong and then over the single lane wooden bridge at Hinton.

It is apparent that the quarry traffic travelling westerly on Clarence Town Road and southerly on High Street will go on to use public roads in the Maitland LGA.

VOWW objects to the development application on the grounds of the unmitigated and unreasonable adverse impacts that will be caused to the local communities by

- A. the intensity of traffic proposed to be generated by the proposal;
- B. the noise that will be generated by the quarry traffic linked to the night time transport of quarry materials;
- C. the cumulative impact of that BHQ traffic and the proposed Martins Creek Quarry expansion traffic; and
- D. no real “rehabilitation” of the quarry void.

A. TRAFFIC GENERATION

1. Existing, Increased and Total traffic

The existing traffic from the BH Quarry is said to be **380** vtpd. (TIA)

The increase in traffic is noted as **524 vtpd incl. quarry deliveries, employees, concrete batch plant.** (EIS Executive Summary Table 2; TIA Conclusion 13.0)

The total traffic generated by BHQ expansion could bring *the total traffic generation from the site to **904 vtpd or 150 vtph.***" (TIA Conclusion 13.0).

The existing traffic generation for the BHQ is based on 2013 and 2014 hourly and daily delivery counts. The figures would not reflect current traffic volumes which are greater.

The total of **904 vtpd** amounts to an extraordinary use of public roads in the road network and the proponent does nothing to mitigate the concomitant impacts upon the community. In the past coal mines have constructed private roads to carry such intense traffic from the mine to where the product is needed; or quarries such as Martins Creek have rail lines available to transport the extracted material on the rail network. All for good reason: to eliminate the impacts of product haulage on public roads. But here such a generation of traffic, **904 vtpd or 150 vtph** on public roads is not in the public interest. Common sense tells us that.

The impact can be looked at another way. The TIA states in respect of the old counts

It is also noted from these counts that heavy vehicle traffic generated by the Brandy Hill quarry makes up approximately 17 % of the total heavy vehicle traffic on the road network. (p11).

If the 'existing' traffic is 380 vtpd and the expanded quarry traffic is 904 vtpd, then the increase in traffic to and from BHQ is 2.38 times greater than what is said to be 'existing' such that BHQ's proportion of heavy vehicle traffic on the road network will be 40.46%. The cumulative effect of the BHQ traffic and the Martins Creek Quarry traffic will be greater.

The local road network will be dominated by heavy trucks, inbound and outbound to quarries. In fact every second vehicle will be a quarry truck

Further, it is clear that the BH Q traffic that does not use Brandy Hill Drive will disperse in other directions, some going down the two other routes of Clarence Town Road, Woodville and High Street, Wallalong.

No split between day and night time traffic is given for those, and it is impossible to ascertain from the EIS' documentation just what proportion of quarry traffic will use these other routes and at what times. There is a complete failure by Hanson to assess quarry traffic impacts on those routes.

If, following the acoustic expert's recommendation (which Hanson has not explicitly agreed to accept) BH Drive ought receive (584+78) 662 vehicles -73% of the 904 – and the balance of

242 (27%) vehicles will use the two other routes. No split between day and nighttime traffic is given for these other two routes.

Hanson ambiguously states that it

“will aim to limit truck movements to day-time operating periods except when a Project customer specify (sic) night-time deliveries, or if Hanson is required to deliver outside daytime operating hours to meet Company demands (delivery of materials to other Company concrete plants).” (SO C 315).

The ambiguity lies in the claim that there will be *daytime operating periods* yet the development application is for a continuous 24/7 operation. Furthermore, no thought has been given to the ability of a customer to take delivery of materials required for night time work during the daytime and stockpile it for use “after hours” thereby eliminating any need for night time deliveries that pay no respect to the amenity of the neighbourhood, a time-honoured planning consideration observed in relevant decisions of the Land and Environment Court since its inception in 1980.

Everything in the EIS is directed to the pursuit of Hanson’s interests with absolutely no thought given to the impacts such pursuit will have on the neighbouring local communities that will suffer the adverse effects of the proposal if approved.

The advice that Hanson

“...will operate a Driver Code of Conduct for the life of the Project. If required, a Traffic Management Plan will also be implemented for the Project.” (SOC 315)

goes nowhere for the residents in the several communities represented in VOWW. We are left in the dark of what that plan and code will contain. What is abundantly clear is that if they be ‘measures’ they should have been addressed and exhibited now, upfront, for public information and comment. Third-party trucks will not be bound by the Code and a traffic management plan is disappointingly offered on the basis “*if required*” even though the *crie de coeure* from the community representatives at the CCC meetings has been about the prospective traffic intensities and their likely adverse effects.

2. Network Roads

The three principal traffic routes proposed for the collection and transportation of the quarry product pass through the following areas with the following attributes –

Within Port Stephens LG Area

Brandy Hill Drive: residences.

Seaham Road: residences and pre-school.

Clarence Town Road, Woodville: residences.

High Street Wallalong: residences.

Outside Port Stephens LG Area:

Morpeth, Largs, Bolwarra Heights, Lorn, East Maitland: residences, schools, preschools.

The TIA's manual traffic counts were carried out on **13 and 15 September 2014** concentrating around the BHQ site.

The Executive Summary shows **1681 vpd for Brandy Hill Drive as 'current' traffic volumes.**

Port Stephens Council more recently for the period **1/12/2016 to 8/12/2016** recorded in Brandy Hill Drive **2166 vehicles ADT** (19.6% being heavy vehicles).

VOWW members' personal observations are that there are far more vehicles using Brandy Hill Drive, Clarence Town Road and High Street than there were 3 years ago.

Thus there is significant and substantial doubt attached to the statement

"It is therefore concluded the proposed expansion of the Brandy Hill Quarry will not adversely impact on the efficiency of the local road network which has sufficiently spare capacity to cater for the expansion without any upgrading works." (TIA p23)

Up-to-date counts and predictions are required to reflect current traffic on the network so as to satisfy SEARs and to give a better prediction of ADT. Parts of the road network are often in disrepair for long periods - 4 weeks or more- and dangerous to travel upon in a family car. The damage is mostly caused by quarry trucks. Stones also fall from quarry trucks and are the cause of many a chipped or cracked vehicle windscreen.

3. Road Safety

In any reasonable person's comprehension, the daily presence of up to 904 BH Quarry vehicles, light years away from current local road usage, the majority using Brandy Hill Drive, would warrant the provision of measures for the protection of pedestrians on BH Drive, particularly families using the school bus system.

There is already an unsafe traffic environment on BH Drive, partly derived from

- absence of footpaths for residents to access the 6 bus stops on the quarry truck route in Brandy Hill Drive;
- bus stops located where buses cannot fully pull off the road;
- inadequate lane and shoulder widths of the road such that cyclists, pedestrians and delivery vehicles (e.g. Australia Post) cannot safely use the road in the continued presence of the quarry trucks.

This existing adverse pedestrian environment will be intensified by the proposed increase in quarry traffic.

When considering "Road Safety", the TIA at section 12 "Traffic Impacts of Development" paragraph 12.3 states

"In terms of development traffic the main impact for this proposal is not so much the volume of traffic generated by the quarry but the type of traffic generated". (emphasis added)

and concludes that

"The local road network impacted by quarry traffic as a result of the quarry expansion is suitably safe for use by quarry traffic meeting all the minimum requirements of Austroads for rural road design."

Under this heading of *Road Safety* the emphasis is on the condition and design of the roads without regard to pedestrian safety.

Pedestrian safety is instead dealt with under Section 16 "Alternative Transport Modes" where it is acknowledged that while the local residents have concerns about existing pedestrian safety and poor construction of school bus stops in Brandy Hill Drive, the existing safety problems should be dealt with by Council from the s94 contribution funds collected from the quarry.

However what we draw attention to here are the residents' concerns about their future safety particularly on BH Drive given the projection of BHQ traffic increasing from 380 to a likely 904 vtpd.

The volume of traffic generated by the quarry is as important as the type of traffic. And both the *volume* and *type* of traffic generated by the expanded development warrant pedestrian protective measures.

Given that the SEARs relevantly require

A description of the measures that would be implemented to avoid, minimize and if necessary, offset the potential impacts of the development including proposals for adaptive management and/or contingency plans to manage any significant risks to the environment.

...

- an assessment of potential traffic impacts on the safety and efficiency and safety of the road network.

- a detailed description of the measures that would be implemented to maintain and/or improve the capacity, efficiency and safety of the road networks in the surrounding area over the life of the development

no remedy is proposed to meet the impacts of increased BH quarry traffic affecting pedestrian safety.

A clear nexus exists between the impacts of greater traffic volumes caused by the proposed development and the remedying of a prospective unsafe pedestrian environment in BH Drive. If the greater danger to BH Drive pedestrians brought on by the proposal is to be appropriately addressed Hanson should have promised to provide suitable infrastructure to eliminate that danger. It has not. Surely Hanson ought to have readily recognised the need for bus pull-off areas; road widening of road shoulders on approach and departure in respect of those; and the need for a footpath for pedestrian use in Brandy Hill Drive, even if liable proportionally as a consequence of its proposal.

B. NOISE IMPACTS CAUSED BY THE QUARRY TRAFFIC

1. *"The project will remain within the acceptable limit of applicable Traffic Noise Criteria."*
(SOC 7.4.4)
2. The EIS has conflicting statements as to this environmental impact.

Compare the general but arguably misleading statement

"The noise impact assessment determines that the Project will comply with relevant noise criteria provided the total number of truck movements is within the acceptable limit of 584 during the daytime and 78 truck movements during the night- time periods." (SOC p15)

with the context of that statement where it elsewhere appears:

"The predicted noise generated by the Brandy Hill Quarry Operations and Quarry Traffic on Brandy Hill Drive would comply with the daytime and night-time noise criteria provided the total number of truck movements on Brandy Hill Drive is kept within the acceptable limit of 584 truck movements during the daytime and 78 truck movements during the night-time periods respectively. The potential sleep disturbance impact from the overall level of road traffic

generated noise, including potential traffic movements associated with the proposed Brandy Hill Quarry Expansion would be within the applicable criteria at the nearest noise sensitive receiver, assuming that the total volume of traffic movements as outlined above is not exceeded.

Predicted noise levels associated with all other activities on-site at the proposed Quarry Expansion comply with the applicable noise criteria during the day, evening and night periods. It is therefore Vipac's professional opinion that the proposed Brandy Hill Quarry Expansion is acceptable from an acoustic point of view." (NVIA to EIS p3 emphasis added).

3. Incidentally, the last statement above stipulates a 584 day/78 night split for BHQ traffic on BH Drive. But no commitment is given by Hanson to accept that split.
4. With respect, there is no acceptable justification for the conclusion

"...that the proposed Brandy Hill Quarry Expansion is acceptable from an acoustic point of view."

when the impact of quarry traffic noise has not been assessed at Clarence Town Road Woodville or High Street Wallalong. There has been no noise monitoring performed for those roads and the assumptions of *criteria* and wherewithal on those locations, again with respect, has not been shown to apply. The effect of proposed traffic noise upon the local populations in those localities is not known. In Clarence Town Road, Woodville the environment surrounding the road is totally different acoustically to that where the nearest receivers at and around the quarry at Seaham are located. One can hear the traffic both day and far more so at night approaching and passing for a greater time period than those –some half a minute or so. In the heat of summer windows of homes are left open for ventilation and the ingress of quarry traffic noise in the nighttime hours will be most disturbing. Noisy quarry trucks are just that –

"In terms of road noise the operation of large haulage trucks can generate significant noise particularly when returning to the quarry empty" (TIA p23).

The receiver R11 is the furthest west of the site in Clarence Town Road and is only a few metres from the Giles Road intersection that is a stone's throw from the quarry site.

The topographies of Woodville and Wallalong are different to each other and to the BH Quarry site. There ought to have been further noise measurements and predictions made along the quarry traffic routes other than close to the BH Quarry and Brandy Hill Drive but there were not. The absence of predictions in those localities makes the overall conclusion unreliable and deficient in that it does not represent a conclusion derived from a complete assessment of the noise impacts of traffic generated by the development.

5. Health and Amenity:

It is well recognized that road traffic noise is a major public health issue and ranks second only to fine particles among the nine environmental risk factors (Recio, Linares, Banegas and Diaz, 2016 Environmental Research 146 359-370). It is reported in that paper that

“The effects widely investigated pertain to cardiovascular health, and to a lesser extent to respiratory and metabolic health.”

The research paper will be made available to the consent authority if required.

No information is provided in the EIS as to the *potential impact* of quarry traffic noise on public health - on the health of the residents of the communities through which the quarry traffic generated by this development will pass.

The amenity of those neighbourhoods will be destroyed by the huge increase in BH Quarry traffic on the local road network, the noise the haulage trucks produce(as to which see below), and the greater risk of unsafe travel for ordinary family motorists on that road network.

C. THE INTERACTIONS AND CUMULATIVE IMPACT OF THE TRAFFIC BROUGHT ON BY THE PROPOSAL, MARTINS CREEK QUARRY PROPOSAL, AND THE MANAGEMENT OF THAT IMPACT

1. A SEARS requirement is

The EIS must include-

A detailed description of the development, including

- *the likely interactions between the development and any other existing approved or proposed extractive industry development in the vicinity of the site (such as the Martins Creek Quarry).*

It is impossible, to determine from the respective quarries EIS' the *likely interactions* of both quarries' traffic.

Compare

Martins Creek Quarry TIA: p 50: para 4.4.4:

“While details of the proposed increase and changes to the operations at Brandy Hill have been requested from the proponent, these details have not been provided.”

with

BHQ TIA: p20: para 11.1 re *Martins Creek Quarry*:

"Daracon are proposing a production increase from the existing Martins Creek Quarry. The available documentation sourced from the NSW Department of Planning and Infrastructure's website indicates that at this stage a traffic impact assessment has not been carried out."

...

"While no traffic figures are available at this stage the preliminary report acknowledges that this is a minor transportation route for the quarry..." (i.e. Brandy Hill Drive).

An Attachment D showing September 2014 deliveries from Martins Creek Quarry on BH Drive accompanies that TIA.

The Martins Creek Quarry EIS went on public exhibition between 13 October 2016 and 24 November 2016.

Four months later the Brandy Hill Quarry EIS went on public exhibition, absent up-to-date information available from the Martins Creek Quarry EIS for the purpose of satisfying the relevant SEARs. It is frankly appalling to suggest (as some have) that the EIS takes time to prepare and therefore the failure to update ought to be excused. However no proper picture can emerge where there is a failure to take that information into account with mere estimation and assumption eliminating any reliability of prediction viz.

"The proposed doubling of the Martins Creek Quarry traffic on the local road network is an estimation based on the available information and assuming the Martins Creek Quarry has similar current extraction rates as the Brandy Hill Quarry." (Hanson TIA)

2.1 The MCQ TIA, based on 2013-4 and July 2015 data, says

Predicted traffic: Table 4.3 gives 'existing' daily one way truck movements of 42 with 5-6 one way average hourly number on Brandy Hill Drive. By deduction, two-way daily movements = 84 from Martins Creek Quarry over Brandy Hill Drive. Hourly average = 10-11 or one a minute on average similarly.

Then at 4.1, *based on the current operation* gives an overall network developed two-way traffic generation of 336 trucks per day + 84 Saturday. These figures, divided by 4 (25% approx. of trucks use Brandy Hill Drive-see Fig 4.4) = an average of **84** per day during the week and 21 on Saturday on Brandy Hill Drive.

There is difficulty in reconciling those figures with those in Table 4.5 MCQ TIA p46. The title of the Table is *"Hourly and Daily impact of the Martins Creek Quarry proposal by road segments."* It shows the Brandy Hill Drive segment then having class 9 vehicle present daily flows of **135** with future flows of **623**.

2.2 The BHQ TIA concludes that

“The Martins Creek Quarry extension will not increase traffic on the road network significantly...”

This statement is based upon the figures supplied the Martins Creek Quarry that are annexure “D” to the TIA and are for 8 September 2014 – 22 September 2014.

Over that 13 day period there were 488 deliveries on Brandy Hill Drive. Whether a *delivery* equates to *two movements* is unclear. It is also unclear how the author of the TIA interprets “*deliveries*” but the Attachment “D” is explicitly headed “**No. Deliveries on Brandy Hill Drive**” (interpreting *deliveries* as outbound movements?)

The BHQ TIA says however, that its sensitivity analysis allows for an additional 16 truck movements in each direction along the proposed haulage route representing a doubling of the MCQ production, i.e. a total of **64** movements daily along Brandy Hill Drive.

The difference between the MCQ (84) and BHQ (64) predictions on traffic generation by MCQ quarries is not insignificant, is contaminated by confusing information, and the absence up-to-date traffic counts. The SEARs requirement cited at the heading of this section is not satisfied.

D. REHABILITATION

Appendix 18 to the EIS

1.4.3 Scheduling of Works

Approximately 46ha of vegetation will be disturbed by quarrying and processing plant relocation over the duration of the project. Rehabilitation work will be undertaken progressively as soon as reshaped, benched and topsoiled areas become available.

1.4.4 Land Capability

In terms of post mining land capability, the EIS confirms that the proposed quarry activities will not have a significant impact on land capability in the area. ...The area contains a valuable state resource and the proposed development will involve extracting this resource prior to returning the area to native vegetation.

Following completion of extraction, the area surrounding the open cut void will be rehabilitated and returned to native vegetation. The land capability of this area will not alter from current land capability although the area of the void will be altered in terms of topography. The land is currently not suited for grazing or agriculture and is best vegetated. It is not proposed to use this area for grazing or other agricultural purposes after mining. Rather, the mined area will be rehabilitated to create a water storage resource surrounded by an open forest environment.

“Rehabilitation

A key physical constraint on possible final land form is the location and topography. For rehabilitation purposes, a quarry void with a base floor level 78 metres below sea level will either be back filled with water from rainfall and any groundwater seepage, or alternatively be filled with other materials such as putrescible or non-putrescible waste depending on the suitability of the geology and other factors, including the community need, that would make this a viable option."

There is really no significant complete rehabilitation proposed in the EIS. There will be a gigantic hole/void in the ground and to list this hole under that heading of "Rehabilitation" i.e. that the land can be restored to its former condition, beggars belief.

The "void" will be deeper than the height (60m mostly) of the cliffs of Great Australian Bight - see photo



Rehabilitation of the void requires solid fill. At the moment that is not even contemplated: dig a hole, let it fill up with water and leave it for future generations to deal with – no problem!

The mined area cannot be "rehabilitated" for water storage. And for what developmental purpose is water storage proposed?

The quarry will have a significant impact on the land capability of the area. It is most unlikely that the land will be rehabilitated for the previous use of grazing.

There is also no timetable offered for the limited rehabilitation works proposed. It is insufficient for this proposal to say that “*Rehabilitation work will be undertaken progressively...*” and leave entirely to the discretion of the developer absent any regulation as to when that is to happen.

Hanson must know well beforehand when and from where the material will be extracted. It ought to have promised a bond to cover the cost of “rehabilitating” the remainder of all works, based on a cost assessment by an experienced valuer in the rehabilitation of extractive industries. No periodic reporting on rehabilitation- proposed and effected- is given and no offering of security to cover prospective rehabilitation compliance are offered.

CONCLUSION

The Environmental Planning and Assessment Act 1979 defines

environment includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings. (s.4 EP & A Act 1979)

Assuming, but not accepting, the existing traffic generation information presented in the EIS reflects the current situation, the conclusion readily reached is that

- the traffic likely to be generated by the proposal is excessive;
- the times that the quarry traffic likely to be generated will be present on the road network particularly at night time, will produce adverse effects on the health of residents by sleep disturbance;
- there will be an adverse effect on pedestrian safety on BH Drive;

and there will be an unacceptable and unreasonable impact on the affected environment.

Inasmuch as the proponent apparently seeks to generate a likely peak of **904** quarry traffic movements, each 24 hours, every day and night of the week on the local road network, split in some way between Brandy Hill Drive, Clarence Town Road and High Street, then that proposal is environmentally ruinous and ought not receive consent.

Add to that number the predicted average daily number of 84 trucks from Martins Creek Quarry giving a daily total of 988, the adverse effect of all increased quarry traffic is magnified.

That huge number of quarry trucks on our local roads will produce an unlivable environment, adversely affecting both those people who live adjacent to the road network and who travel on the road network itself.

Quite apart from the intensity of the quarry traffic, the EIS offers zero solace to residents who expected to see explicit appropriate measures to regulate the times and frequency of truck movements to and from the quarry for the purposes of its operations. It is pitiful that there is a weak “offer” of a code of conduct and, *if required*, a traffic management plan. A code of conduct may be appropriate as a condition of consent in circumstances far less imposing than here; but given the magnitude of this proposal it and any plan should have been available long ago for scrutiny, at the CCC meetings perhaps.

Residents will not sleep with any number of noisy quarry trucks, empty and laden, running past their homes at all hours of the night. They will not be able to and are likely to suffer adverse health through sleep disruption and disturbance triggered by that quarry traffic noise. The rural-residential environment is low in background noise and traffic sound travels long distances in the quiet atmosphere, moreso at night than in daylight hours.

The potential impact of the transportation of product on the local communities of Brandy Hill, Woodville and Wallalong will adversely compromise the public health and amenity of those local communities.

That impact has been inadequately and insufficiently addressed in this proposal, if at all.

We have been presented with an EIS that, in respect of the impacts of traffic generation, does not satisfy, at the very least, the SEARs requirement to show measures that would be

implemented to avoid, minimize and if necessary, offset the potential impacts of the development including proposals for adaptive management and/or contingency plans to manage any significant risks to the environment.

The lack of any rehabilitation of the void is deplorable as is the absence of a periodic assessment report and the provision of periodic bonds as security for rehabilitation of the site. To leave it to the proponent, without more, to decide when to rehabilitate is folly.

The development application should be refused on traffic generation grounds alone.

Yours sincerely,

John Redman
President
for and behalf of Voice of Wallalong and Woodville Inc.