



Mr Steve Barry  
Director of Planning  
Office of the Independent Planning Commission of NSW  
Via email: [REDACTED]

1 July 2020

Dear Steve

**Brandy Hill Quarry Expansion (SSD 5899)  
Response to Independent Planning Commission Questions (22 May 2020)**

I refer to your letter dated 18 June 2020 requesting advice on number of points related to the assessment of the Brandy Hill Quarry Expansion (SSD 5899).

A response to these questions is provided in **Attachment 1**.

If you have any questions, please contact Gen Lucas on [REDACTED] or by email at [REDACTED]

Yours sincerely

A handwritten signature in black ink, appearing to be 'S O'Donoghue'.

Stephen O'Donoghue  
**Director**  
**Resource Assessments**

## Attachment 1

### Response to Commissions Questions 22 May 2020 Brandy Hill Quarry SSD 5899

#### 1. Road Infrastructure

The Department's advice is sought in relation to an appropriate condition of consent to replace Conditions A11 and A20 to ensure that not only the six bus bays but also the shared pathway along Brandy Hill Drive are in place prior to more than 700,000 tonnes of quarry material being transported from the quarry in any calendar year. It would be appreciated if the Department, in its advice, could confirm whether the Applicant can undertake the works to Council's specification and that the cost of these works may be credited against future road maintenance contributions payable pursuant to Condition A19.

The Department notes that the Brandy Hill Drive is a busy local road, and if the project proceeds, it would contribute to the number of heavy vehicle movements on this road.

However, the Department does not consider that the shared pathway is a mandatory safety measure that is directly linked to the proposed increase in traffic movements nor is it required to comply with any road standard or policy, and there is no legal justification to delay the proposed increase in production at the quarry until this pathway is fully constructed.

The Department also notes that the construction of the shared pathway has significantly greater complexities than the construction of bus bays in terms of design, property acquisition and construction, and it is a matter best delivered by Port Stephens Shire Council as a community enhancement project.

Accordingly, the joint funding and construction of the shared pathway has not been directly conditioned in the quarry consent, but has been the subject of the proposed planning agreement with Port Stephens Shire Council.

Notwithstanding, Hanson has agreed to update the terms of the planning agreement to provide all payments towards the shared pathway within 12 months rather than the proposed 24-month period, including an upfront payment of \$375,000 towards design and planning considerations as well as the commencement of construction. Hanson has also agreed to limit production to 700,000 tpa until all payments to Council have been made.

While it is acknowledged that the delivery of the construction of the pathway would ultimately be a matter for Port Stephens Shire Council, it has advised that the pathway would form part of its Strategic Asset Management Plan, and after the preconstruction phase for the pathway the construction would take approximately 12 months to complete,

Overall, the Department supports the amended offer from Hanson, and notes that it represents up to 75 percent of the funding for the pathway. However, the Department considers that there is limited justification to link this community enhancement project directly with the proposed extension of the quarry, and it is appropriate that it should remain a matter that is subject to an amended planning agreement.

The Department also does not support the proposal for Hanson to undertake the construction of the shared pathway on behalf of Council, and discount these costs from its road maintenance contributions.

Firstly, as detailed above, there are a number of administrative matters (e.g. land acquisition) that would be the responsibility of Council, and are outside the control of Hanson. Linking these works to a separate development consent for the quarry would therefore not be reasonable or appropriate, and would not provide sufficient certainty for Hanson to be able to expand production at the quarry.

Secondly, the road maintenance contributions are a separate matter that have been calculated in accordance with the Council's contribution plan, and the Department considers these works must be fully funded as they directly relate to road safety and the performance of the road network.

To assist the Commission, the Department has prepared revised conditions to reflect Hanson's revised offer for the planning agreement.

- A11.** The Applicant must not transport more than 700,000 tonnes of quarry products from the site in any calendar year until all funding required under the Planning Agreement with Council has been provided and the bus bays are constructed (see condition A20), unless otherwise agreed by the Planning Secretary. This annual limit can be increased on a pro rata basis depending upon the date that these requirements have been met, with the approval of the Planning Secretary.

Following the construction of the bus bays and the delivery of all funding required under the Planning Agreement, the Applicant must not transport more than 1.5 million tonnes of quarry products and 15,000 m<sup>3</sup> of pre-mixed concrete from the site in any calendar year.

#### **APPENDIX 7: GENERAL TERMS OF PLANNING AGREEMENT**

<b>APPLICANT'S CONTRIBUTION</b>	<b>Intended Use</b>	<b>Payment Details</b>
\$120,000	<i>Funding toward the construction of six bus bays on Brandy Hill Drive and Seaham Road. This item will be a forward payment of haulage levels required under Council's contributions plan.</i>  <i>Bus bays to be designed and constructed by Council.</i>	<i>Within twelve months of the date of the commencement of the development, or as otherwise agreed under the executed document.</i>
\$1,500,000	<i>Funding toward the construction of a shared pathway on Brandy Hill Drive.</i>  <i>Shared pathway to be designed and constructed by Council.</i>	<i>First payment of \$375,000 to be made immediately following the execution of the planning agreement.</i>  <i>The remaining amount to be paid in 3 equal instalments within 12 months of the execution of the planning agreement.</i>

## 2. Infrastructure Contributions

The Panel notes that the road infrastructure in the Port Stephens LGA will be required to accommodate roughly 75% of the traffic generated by the quarry; however, there is a significant discrepancy between the contributions payable over the 30-year life of the quarry to PS Council (\$48M+) and Maitland Council (\$158,931).

The Department's advice is sought in relation to the reworking of Condition A19 to ensure a more equitable distribution of road maintenance funding to both Councils based on the apportionment of quarry traffic across the LGAs.

The derivation of road maintenance contributions is a matter for Local Councils to manage under applicable contributions plans in accordance with Section 7.1 of the *Environmental Planning and Assessment Act 1979*.

Councils are able to amend contributions plan, including the applicable equations and assumptions in accordance with the procedures set out in the *Environmental Planning and Assessment Regulation 2000*.

In this case, the road maintenance contributions for the project have been calculated in accordance with the respective contributions plans for each Council, and both Councils have reviewed the recommended conditions and not raised any issues with the Department about how these contributions have been calculated.

While the Department notes the apparent discrepancy, it does not consider that there is any reason to revisit these contributions, noting that each Council has obligations under the *Roads Act 1993* to ensure roads are adequately maintained.

Lastly, it should be noted that both haulage routes contain Regional Roads, which are eligible to receive maintenance funding from the State Government.

## 3. Noise

The applicant is requesting that the draft conditions which restrict truck movement during the night (10.00pm to 7.00am) be reviewed on the basis that the NIA demonstrates compliance with the Project Road Noise Predictions (RNP) (refer to Table 3 of the Department's Assessment Report). Can the Department please provide further explanation in relation to:

- a) Whether the primary and secondary haulage routes (see Figure 8 in Department's Assessment Report) are consistent with the RNPs classification of sub-arterial road, particularly during the night-time period given the low traffic volumes and the matters raised by the Brandy Hill and Seaham Action Group (see attached).

Table 2 below is an extract of the road categories under the *NSW Road Noise Policy (RNP)*. These road categories are based on road function rather than traffic volumes, however, it is assumed that traffic volumes would be greater on roads that have greater connections (ie Arterial and Sub-arterial roads - see Section 2.5.2 of the RNP – Application of Descriptors).

The Department considers that the primary and secondary haulage routes are consistent with the Sub-arterial classification as all roads on these routes provide connection between arterial roads and local roads.

**Table 2 Road categories and management responsibility**

Road category	Functional role	Examples	Management responsibility
Freeways or motorways/arterial roads	Support major regional and inter-regional traffic movement. Freeways and motorways usually feature strict access controls via grade separated interchanges.	<ul style="list-style-type: none"> <li>• Pacific Highway, Taree</li> <li>• M4 Motorway, Eastern Creek</li> <li>• Princes Highway, Arncliffe</li> </ul>	State government
Sub-arterial roads <sup>1</sup>	Provide connection between arterial roads and local roads. May support arterial roads during peak periods. May have been designed as local streets but can serve major traffic-generating developments or support non-local traffic.	<ul style="list-style-type: none"> <li>• Bourke Street, Surry Hills</li> <li>• Cook Street, Baulkham Hills</li> <li>• Forest Road, Lugarno</li> </ul>	Local councils
Local roads	Provide vehicular access to abutting property and surrounding streets. Provide a network for the movement of pedestrians and cyclists, and enable social interaction in a neighbourhood. Should connect, where practicable, only to sub-arterial roads.	<ul style="list-style-type: none"> <li>• Prince Street, Randwick</li> <li>• Pell Street, Howlong</li> <li>• Killarney Drive, Killarney Heights</li> </ul>	Local councils

1. Previously designated as 'collector' roads in *Environmental criteria for road traffic noise* (Environment Protection Authority 1999)

Whilst the RNP encourages the use of the noise assessment criteria for target noise levels, it also encourages additional application of feasible and reasonable mitigation measures. This includes considering the views of the local community, which in the case of the project, have strongly opposed night-time trucking due to potential impacts on amenity and sleep.

The RNP recognises that there is a relationship between maximum noise levels from noisy vehicles and 'annoyance' for individuals, and recommends that noise mitigation strategies are implemented where possible to reduce these noise levels.

In the context of sleep disturbance, the RNP identifies that in areas of intermittent traffic flow, the  $L_{Aeq}$  descriptor (ie the average noise level over a period) may be inadequate in predicting impacts on sleep. In this context, the RNP suggests further consideration of the frequency and severity of noise events.

On this basis, whilst the Project would comply with the  $L_{Aeq}$  noise limits set out in the RNP, the RNP also encourages the consideration and evaluation of noise sources in context.

To provide further commentary on this matter, the Department sought advice from its Noise Specialist.

*In NSW, environmental noise objectives are generally set to protect 90% of the population from being highly annoyed by the noise source. Noise studies show that for a given noise level, the general population will be much less annoyed by steady road traffic noise than it will by noise generated by say an industrial source or a wind farm. The noise objectives for an existing road at night are 55 dB(A) whilst the recommended levels of industrial noise are 40 dB(A) at night and are around 35 dB(A) for wind farms. The reasons for acceptance of higher levels of noise from road traffic is complex however the use of a road is available to*

everyone equally (including the impacted resident) whilst there tends to be less of an acceptance of noise generated by a facility that for which the impacted resident receives no benefit. Extending this line of reasoning to truck movements associated with a commercial activity is consistent with comments regularly received regarding truck movements on public roads.

In considering a project, the Department must weigh up the merits of many disparate impacts and benefits. In this respect the Department consistently finds that the need to transport quarry material does not outweigh the benefits at night because of noise impacts, which is reflected in most State significant quarry consents in NSW. This is generally because of two key reasons:

Firstly, the noise objectives established in the RNP recognise a level of impact is required because of the benefit a road brings to a location. This is not to say that the noise objective will be acceptable to all nearby residents. Therefore, the Department requires a high level of justification why levels approaching the noise objectives should be approved.

Secondly, whilst the Department recognises the need to commence transportation early during the day to supply construction sites, the need for this to occur at night is less so. In the Department's experience the supply of aggregate at night does not happen even if those construction sites are working at night. In these cases, stockpiles will be replenished during the day or early evening at latest. Despite claims that the proponent would need to be able to deliver aggregate at night to road construction projects or maintenance, no supporting evidence has been provided by TfNSW. Notwithstanding, the Department being unconvinced of the need for night-time haulage, it has provided for extended hours on up to 20 evenings per calendar year.

- b) If the haulage routes were not classified as a sub-arterial road would the Project Road Noise Predictions be complied with?

The RNP imposes a night-time local road noise criteria of 50 dB(A)  $L_{Aeq, 1hour}$ . This differs to the sub-arterial road criteria, which is 55 dB(A)  $L_{Aeq, 9hour}$ . A key difference between these criteria is the averaging period on which they are based (ie 1 hour vs 9 hours).

Hanson's Road Noise Assessment did not predict noise levels for each hour between 10pm and 5:00 am, and therefore, further assessment would be required from Hanson to answer the Commission's question.

Hanson's Road Noise Assessment did predict hourly noise levels during the morning shoulder period (ie 5:00 am to 7:00 am). Traffic volumes during these hours are higher than earlier hours during the night, consistent with a 'shoulder' period.

Existing traffic noise levels during these hours are already greater than the night-time noise criteria (ie >50 dB(A) 1hour). In such circumstances, the RNP recommends that noise levels do not increase by more than 2 dB(A). Hanson's noise impact assessment identified that this objective could be met during the morning shoulder period, so long as truck movements are limited.

- c) How the existing noise levels along the haulage routes during the night (10.00pm – 7.00am) and early in the morning (5.00 – 6.00am and 6.00 – 7.00am) are measured under the RNP, and how existing background noise is measured at receptors along these roads under the INP? Are these noise levels comparable?

To provide commentary on this matter, the Department sought advice from its Noise Specialist.

*The RNP sets its key noise objectives based on absolute levels and therefore, does not refer to a background noise level. Some qualitative assessments of sleep disturbance may sometime refer to a  $L_{90}$  level, but this is not routinely the case. A relative noise assessment is sometimes relevant for new roads but this refers to an ambient transport noise level rather than a background  $L_{90}$  level.*

*In summary, the majority of road traffic noise assessments do not measure background  $L_{90}$  levels. Existing levels are measured using the  $L_{eq(period)}$  descriptor, where the period is an equivalence over either a 9 hour night or a 15 hour day.*

*The INP/NPfl sets two types of objectives for industrial noise, being either the Intrusive Criteria or the Amenity Criteria. In most cases it is the relative Intrusive Criteria that is the controlling criterion.*

*To determine the Intrusive noise criterion requires that a determination of the Rating Background Level be made. This is a complex process that identifies the 10% lowest  $L_{90(15\text{ minute})}$  level that occurs during either the 15 hour day, 4 hour evening or 9 hour night.*

*In summary, for most purposes the industrial noise and road traffic noise are not comparable, nor are they required to be.*

- d) Confirm the location/s of noise monitors along the haulage routes and the period of monitoring?

Road noise monitoring data was collected from:  
N02 – 115 Brandy Hill Drive, Brandy Hill  
N07 – 33 Brandy Hill Drive, Brandy Hill

Data was collected from 9 – 16 March 2015.

- e) Are the existing noise levels measured on the roads in the haulage routes Brandy Hill the same or is it reasonable to assume the existing noise levels on different roads would be the same?
- f) Did the noise impact assessment for the proposed development include an assessment of the impacts of heavy vehicle traffic noise on residential suburbs (where there is a greater density of development with significantly reduced setbacks from the road compared to rural residential development along Brandy Hill Drive) on the secondary haulage route (e.g. Bolwarra Heights, Largs, Bolwarra etc).

It is reasonable to assume that existing noise levels at one receiver are representative of other receivers on different roads. The noise impact assessment did not model road noise impacts on the secondary haulage route, as it was considered that modelling undertaken at the receiver located on Brandy Hill Drive would appropriately represent potential impacts at other receivers.

To provide further commentary on this matter, the Department sought advice from its Noise Specialist.

*Road traffic noise approximates a line source and is generated according to a 10 log relationship. Noise modelling can be used to predict at each and every receiver however this is not necessary if the noise objectives are not being exceeded.*

*For a project such as this, it is acceptable to provide a calculation to a representative receiver. The 10 log relationship allows us to make some basic and reasonable assumptions. For example if a level of 55 dB(A) is predicted at 30m from Road A we would expect the level at 15m to be 58 dB(A). If a house is on Road B which only receives 25% of the trucks on Road A then at 30m this house would experience 49 dB(A) whilst a house that was 15m from Road B would experience 52 dB(A).*

*The Department is confident that noise levels will not exceed road traffic noise objectives under the haulage conditions developed.*

#### **4. Biodiversity**

In this regard it would be appreciated if the Department could please advise:

- a) Whether there are suitable (like-for-like) offsets available in the region and, if they exist, where they are located?

There are suitable like-for-like offsets available in the region. The Department understands that Hanson is currently negotiating with a neighbour to the north of the quarry who holds a biobank site containing the required credit liability. A summary of the available credits in the Port Stephens LGA can be found at

<https://www.environment.nsw.gov.au/bimsprapp/SearchBiobankingAgreement.aspx?Start=1>

- b) Whether an assessment of the proposed loss of some 54 ha of moderate / high quality native vegetation which provides habitat for a number of threatened species including the koala, has been undertaken having regard to the broader NSW context and in recognition of the Black Summer Bushfires.
- c) Whether the staging of the development could be conditioned to require a further assessment of the impact on Koala habitat prior to the commencement of Stage 2, to enable a contemporary assessment to be undertaken which may better reflect the status of the koala population at that time.

The assessment of biodiversity impacts has been undertaken in accordance with the Biobanking Assessment Methodology (BBAM) and *NSW OEH Interim Policy on assessing and offsetting biodiversity impacts*. This was prescribed in the Secretary's Environmental Assessment Requirements (formerly Director General's Requirements) issued in June 2015.

Transitional arrangements of the *Biodiversity Conservation Act 2016* stipulate that former biodiversity assessment policies can be applied, depending on the timing of development application processes. In the case of the project, Hanson carried out its assessments in accordance with these transitional arrangements.

As the biodiversity assessment policy is constantly evolving and the assessment of State significant projects often extends over a number of years, the transitional arrangements are in place to 'draw a line in the sand' as to what policy applies for a development application so that the requirements on Applicant's throughout the assessment process are reasonable.

The Department's Biodiversity Conservation Division (BCD) is satisfied that the biodiversity assessment was undertaken in accordance with the requirements of the Biobanking

Assessment Methodology (BBAM) and *NSW OEH Interim Policy on assessing and offsetting biodiversity impacts*.

A condition requiring future assessment of biodiversity impacts and re-evaluation of credits through staged clearing for the project would be inconsistent with NSW government policy and statutory requirements and therefore is not recommended by the Department.

The BCD confirmed that the current biodiversity calculator applied in the Biodiversity Assessment Methodology (BAM) has not been updated to account for changes associated with bushfire impacts associated with the Black Summer Bushfires. That is, all project's currently under assessment by the Department continue to be assessed in accordance within the framework of the relevant biodiversity policy and do not require reassessment due to the recent bushfires.

However, a key change to the biodiversity assessment framework since the bushfires has been additional guidance for the assessment of bushfire affected land (ie to ensure habitat is being assessed, albeit in a burnt state). This change is not relevant to the project as the Project area and its surrounds were not affected by the bushfires and previous ecological surveys were completed in accordance with the relevant requirements.

Nonetheless, the offsetting obligations generated under the BBAM for the project are significant and are designed to maintain and enhance biodiversity values in the medium to long term.

## **5. SEPP (Mining, Petroleum Production and Extractive Industry) 2007**

Could the Department provide further advice on the consideration of matters in Part 3 of the Mining SEPP, in particular:

- a) 12 Compatibility of proposed mine, petroleum production or extractive industry with other land uses

*Before determining an application for consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must—*

*(a) consider—*

- (i) the existing uses and approved uses of land in the vicinity of the development, and*
  - (ii) whether or not the development is likely to have a significant impact on the uses that, in the opinion of the consent authority having regard to land use trends, are likely to be the preferred uses of land in the vicinity of the development, and*
  - (iii) any ways in which the development may be incompatible with any of those existing, approved or likely preferred uses, and*
- (b) evaluate and compare the respective public benefits of the development and the land uses referred to in paragraph (a)(i) and (ii), and*
- (c) evaluate any measures proposed by the applicant to avoid or minimise any incompatibility, as referred to in paragraph (a)(iii).*

Since the quarry was established in 1983, rural residential development surrounding the quarry has significantly increased. Compatibility of the quarry with this changing land use is a key assessment issue as outlined in the Department's assessment report.

The Department's assessment report carefully considered the compatibility and significance of impacts of the development on the other land uses in the vicinity of the development. This is particularly in relation to potential impacts of the project on residential receivers including on air quality, noise, visual impacts, blasting impacts and groundwater and surface water impacts. This evaluation is provided in Chapters 6 and 7 of the Department's assessment report and provides a detailed analysis of these impacts against NSW Government policy and guidelines.

This evaluation has shown that the proposed avoidance and mitigation proposed by Hanson and the Department's recommended conditions strike a fair balance to minimise impacts such that impacts can be managed in accordance with NSW Government policy and guidelines for managing impacts on rural residential receivers, and facilitate the co-existence of these potentially competing land uses.

#### **14 Natural resource management and environmental management**

*(1) Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure the following—*

.....

*(b) that impacts on threatened species and biodiversity, are avoided, or are minimised to the greatest extent practicable,*

The Department considers that avoidance and mitigation principles were appropriately applied in Hanson's assessment of biodiversity impacts. Hanson advised that during initial planning for the Project, the proposed disturbance area was reduced in size from approximately 121 hectares (ha) to 55 ha due to geological constraints and to minimise impacts on biodiversity. Further opportunities to avoid biodiversity impacts are limited due to the location of the resource, however, Hanson proposed a number of measures to mitigate impacts on biodiversity.

The Department recommended that these proposed measures, as well as other mitigation measures, be implemented through a Biodiversity Management Plan condition (see condition B50).

The Department has also recommended that the biodiversity impacts of the Project are offset in accordance with NSW government policy which appropriately compensates for the potential impacts of the project and ensures biodiversity values are maintained or enhanced in the medium to long-term.

#### **16 Transport**

*(1) Before granting consent for development for the purposes of mining or extractive industry that involves the transport of materials, the consent authority must consider whether or not the consent should be issued subject to conditions that do any one or more of the following —*

.....

*(b) limit or preclude truck movements, in connection with the development, that occur on roads in residential areas or on roads near to schools,*

This provision specifically relates to the protection of residential areas from transport of materials from extractive industry. The Department's assessment concluded that Hanson's proposed hours of transport would likely result in adverse impacts on local amenity, particularly through the evening and night periods. The Department recommended conditions to limit truck movements to and from the quarry in order to protect the amenity for residential receivers along the haulage routes.

Appendix G of the Department's Assessment Report provides further consideration of applicable statutory requirements.