

Noise Management Plan

For the Brandy Hill Quarry Expansion



Prepared by:



R.W. CORKERY & CO. PTY. LIMITED

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Approved By			
Date:			
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1. Introduction

1.1 Scope

This Noise Management Plan (the Plan) has been prepared by R W Corkery & Co Pty Limited (RWC) on behalf of Hanson Pty Ltd (Hanson) for the Brandy Hill Quarry (the Quarry). The Quarry Site is located approximately 3.5km to the east of Seaham, 15km northeast of Maitland and 30km north of Newcastle in the Port Stephens Local Government Area (LGA). The Quarry is an open cut hard rock extraction operation with associated crushing and screening, product stockpiling, associated infrastructure and other ancillary activities required for product preparation and despatch. Access to the Quarry is via the public road network at a dedicated intersection with Clarence Town Road and Brandy Hill Drive.

This document has been prepared in satisfaction of *Condition B5* of Development Consent SSD 5899 and describes the following:

- noise management objectives, roles and responsibilities;
- competence training and awareness;
- the consultation undertaken during preparation of this document;
- the noise management context including the existing conditions for the operation;
- the legal and other requirements associated with management of noise-related issues;
- noise management measures that would be implemented during the life of the Quarry;
- incident reporting and compliance management; and
- document review.

The Project is fully described in the following documents and no further background information is provided as part of the Plan:

- *Environmental Impact Statement Report Brandy Hill Expansion Project*, prepared by Hanson Construction Materials Pty Ltd, dated February 2017 (Hanson, 2017);
- *Brandy Hill Quarry Expansion – Updated Noise and Vibration Impact Assessment*, prepared by Vipac Engineers and Scientists Limited, dated September 2018 (Vipac, 2018); and
- *Amended Response to Submissions*, prepared by R.W Corkery and Co Pty Limited, dated September 2019 (RWC, 2019).

In addition, a range of management plans have been prepared to guide operations within the Quarry. These include the following:

- Air Quality Management Plan;
- Biodiversity and Rehabilitation Management Plan;
- Blast Management Plan;
- Traffic Management Plan
- Water Management Plan; and an
- Environmental Management Strategy.

A copy of this Plan and each of the above documents are available from the Hanson website.

This Plan has been prepared to be a practical tool for the management of noise-related risks for the ongoing operation of the Quarry. This plan will be implemented as approved by the Planning Secretary.

1.2 Objectives and Outcomes

Table 1 presents the objectives and key performance outcomes for this Plan and the Quarry.

**Table 1
Objectives and Key Performance Outcomes**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
Noise	
(a) To ensure compliance with all relevant Development Consent and Environment Protection Licence criteria and reasonable community expectations.	(i) Compliance is achieved with all relevant criteria nominated in the Development Consent and Environment Protection Licence and reasonable community expectations.
(b) To implement appropriate noise management and mitigation measures during all stages of the Quarry.	(ii) All identified noise management and mitigation measures are implemented to the extent required.
(c) To implement an appropriate monitoring program to establish compliance or otherwise with relevant criteria during all stages of the Quarry.	(iii) All identified monitoring is undertaken in accordance with the relevant procedures and at the relevant intervals.
(d) To implement an appropriate complaints handling and response protocol.	(iv) Complaints (if any) are handled and responded to in an appropriate and timely manner.
(e) To implement continual improvement for investigating, implementing and reporting on reasonable and feasible measures to reduce noise.	(v) An appropriate continual improvement program has been implemented.
(f) To implement an appropriate incident reporting program, if required.	(vi) Incidents (if any) are reported in an appropriate and timely manner.

1.3 Roles and Responsibilities

Table 2 presents the roles and responsibilities for the implementation of this *Noise Management Plan*.

**Table 2
Roles and Responsibilities**

ROLES	RESPONSIBILITIES
Operations Manager	Must ensure adequate resources are available to enable implementation of the Plan.
Environment, Planning and Compliance Coordinator	Accountable for the overall environmental performance of the Brandy Hill Quarry Expansion operations, including the following outcomes of this Plan. <ul style="list-style-type: none"> ▪ Commissioning noise monitoring as outlined in Sections 3.5. ▪ Publication of monitoring data and reports as outlined in Section 3.6. ▪ Incident reporting as outlined in Section 4.14. ▪ Review of this Plan as outlined in Section 4.2. ▪ Evaluation of compliance as outlined in Section 4.2 and related follow-up actions.
Quarry Manager	Manage the implementation of the following components of this Plan. <ul style="list-style-type: none"> ▪ Implementation of the competence training and awareness as outlined in Section 1.4. ▪ Implementation of the noise management system outlined in Section 3. ▪ Complaints handling and response as outlined in Section 3.3.2. ▪ Compliance and continual improvement of noise management as outlined in Section 4.
All personnel	Ensure training and awareness induction has been undertaken. Compliance with this Plan.

Source: Hanson Construction Materials Pty Ltd.

1.4 Competence Training and Awareness

All Company personnel and contractors and their employees will undergo Company and site specific inductions, incorporating basic noise management awareness training as part of the site induction program. The following areas will be covered in the induction.

- Use of only approved reversing alarms.
- Awareness of prevailing wind directions and their potential to increase noise emissions downwind.
- Awareness of the noise enhancing effects of temperature inversions and the times of day and meteorological conditions under which they may occur.
- Awareness of noise control measures.
- Awareness of operating hours.
- Awareness of surrounding neighbouring and residences.
- Awareness of the potential for noise impacts to neighbours and the location of the nearest privately-owned residences.

The Quarry Manager will be responsible for ensuring the appropriate noise management training is included in the induction.

In addition, monthly toolbox meetings are held to discuss whole-of-site production, management, safety and environmental issues. Matters relating to noise are raised during these meetings, when necessary.

1.5 Consultation

The following consultation was undertaken during preparation of the Plan:

A draft copy of the Plan was provided to the Environment Protection Authority (the EPA) and the Department of Planning Industry and Environment (the DPIE) on 2 March 2021. Feedback was received from the EPA on 29 March 2021 refraining from providing comment. Comments from DPIE were received on 16 June 2021.

All feedback received as part of the consultation process has been incorporated, where required, into the final Plan. A copy of all comments received during consultation are provided as **Appendix 1**.

2. Noise Management Context

2.1 Introduction

Under SSD 5899, Hanson is approved to extract, process and transport from the Quarry up to 1 500 000t per year of quarry products and 15 000m³ per year of pre-mixed concrete (concrete batching) for use principally in the Hunter, Central Coast and Sydney regions. The Quarry may also receive up to 20 000t per year of concrete washout material per annum (principally from concrete batching plants) for recycling. Further information regarding approved activities is available in the *Environmental Impact Statement* (Hanson, 2017) and the *Amended Response to Submissions* (RWC, 2019).

The progressive development of the Quarry will occur over five operational stages resulting in a total disturbance area of 97.7 hectares (ha). In summary, the development stages of the Quarry will be as follows:

- Stage 1 – deepening of the existing Extraction Area and lateral extension to the west and south. Extraction would progress to an elevation of approximately 22m AHD. Topsoil and overburden salvaged during this stage would be used to develop an amenity bund at the southern end of the final disturbance area.
- Stage 2 – progression towards the south west corner of the Extraction Area as its footprint is expanded and deepened to approximately -8m AHD. Topsoil salvaged during site preparation would be temporarily stockpiled or applied directly to rehabilitate the terminal benches above approximately 20m AHD.
- Stage 3 – progression of the Extraction Area towards the existing Processing and Stockpiling Area and to a depth of -38m AHD. Topsoil and overburden salvaged during this stage would be directly applied to terminal benches for progressive rehabilitation.
- Stage 4 – relocation of the Processing and Stockpiling Area to the south of its existing location. The extraction area footprint is expanded towards the eastern boundary and deepened to approximately -58m AHD. Topsoil and overburden salvaged during this stage would continue to be directly applied to terminal benches for progressive rehabilitation.
- Stage 5 – completion of the Extraction Area to the south east resulting in a final floor elevation of -72m AHD.
- Closure – closure and predicted recovery of groundwater levels in Extraction Area void.

2.2 Surrounding Residences and Buffer Land

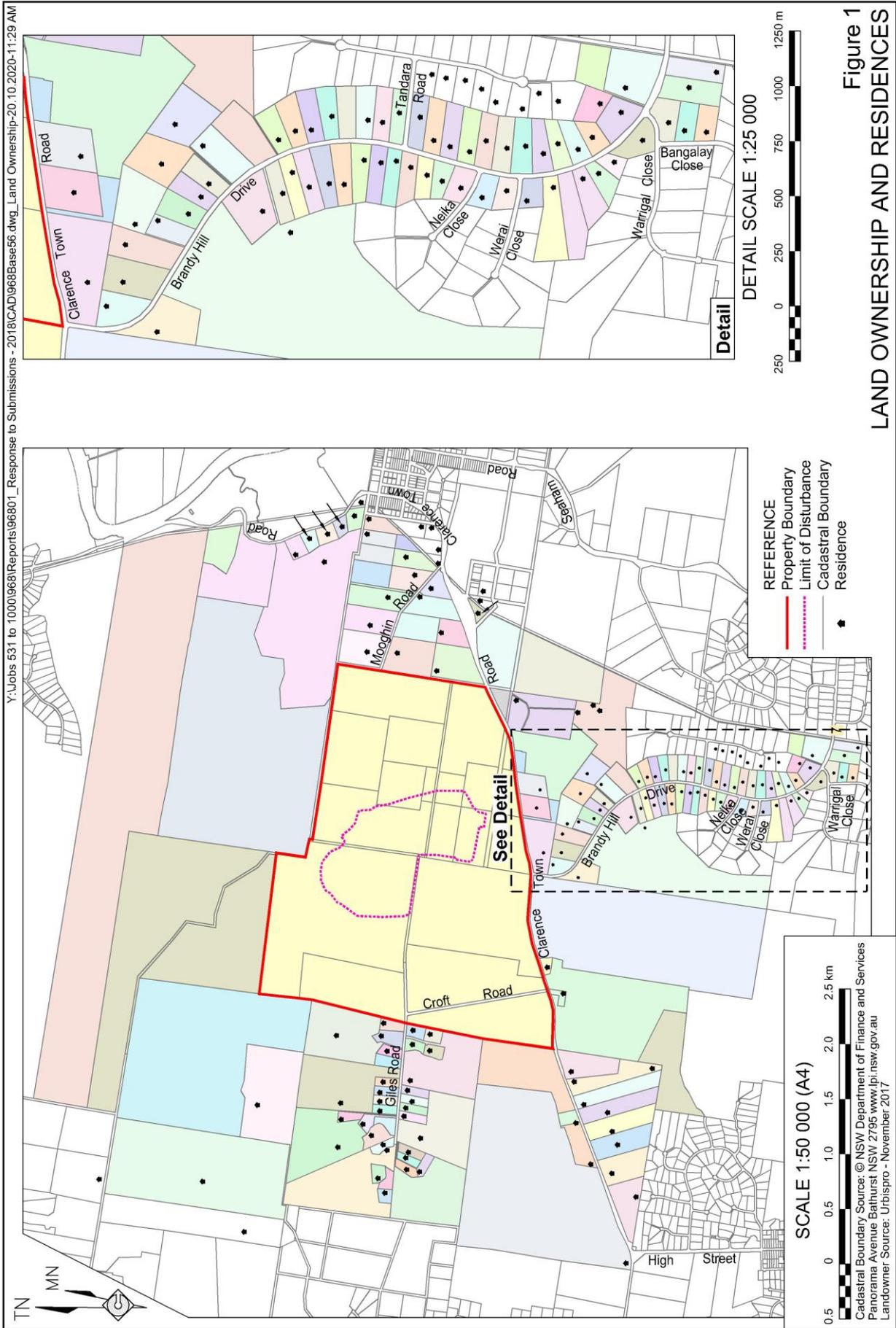
Quarrying activities at Brandy Hill have been occurring since 1983 with the extraction, processing and associated transportation activities co-existing with the progressive development of rural residential living in the local area. Brandy Hill Drive was built to service the Quarry and land along this road was progressively subdivided and developed in the presence of an operating Quarry.

It is important that personnel recognise the proximity of the operation to residences and the potential for quarrying activities to adversely impact neighbours. **Figure 1** presents the locations of residences to the west, east and south of the Quarry. The closest residences to the operation are located on the following roads.

- Giles Road to the west.
- Mooghin Road to the east.
- Clarence Town Road and Brandy Hill Drive to the south.

Operational noise criteria apply at all residences.

In order to mitigate for any potential amenity impacts from the operations, land owned by Hanson that is not to be cleared must remain as buffer lands for the life of the development.



2.3 Site Wind Environment

Prevailing wind influences the likely direction of dust dispersion and can indicate where the greatest risk and level of impact may occur. Todoroski Air Sciences reviewed the existing site wind environment during preparation of the Air Quality Impact Assessment (TAS, 2019) for the expansion project. Within the Quarry Site, winds predominantly occur from the west-northwest and northwest and tend to flow on a northwest to southeast axis. In summer, winds tend to occur from the southeast quadrant. The autumn and winter wind distributions are similar to the annual distribution with winds predominantly occurring from the west-northwest and northwest. In winter there are fewer winds originating from the southeast quadrant. In spring, there is greater variability in wind directions which are more evenly distributed compared to the other seasons.

2.4 Historic Noise Monitoring

As part of the attended noise monitoring program, noise is monitored continuously over a 15-minute period during the regular hours of operation for the Quarry, at the locations specified within the EPL (as presented in **Figure 2**). Its purpose is to identify potential exceedances and the source of the exceedance. **Table 3**, **Table 4** and **Table 5** presents the outcomes of compliance noise monitoring undertaken in 2018, 2019 and 2020. Each table also includes the relevant noise limits described in EPL 1879. The results of monitoring indicate that the quarrying activities are generally inaudible at privately-owned residences, however the records and maximum noise monitoring highlights that the operation may have been heard, albeit at low noise levels.

Table 3
Summary of Noise Monitoring N1

Year	Location and Period*	Criteria Level (dBA)		Estimated site contribution (dBA)	
		L _{Aeq, 15min}	L _{A1, 1 min}	L _{Aeq, 15min}	L _{A1, 1 min}
2018	N1 - Day	36	45	<28	Not Applicable
	N1 - Evening	36	45	Not available	Not Available
	N1 - Night	36	45	<26	32-44
2019	N1 - Day	36	45	Not Audible	Not Applicable
	N1 - Evening	36	45	Not Audible	Not Applicable
	N1 - Night	36	45	Not Audible	Not Applicable
2020	N1 - Day	36	45	<35	Not Applicable
	N1 - Evening	36	45	<35	Not Applicable
	N1 - Night	36	45	35	<45
* See Figure 2 for monitoring locations. Day period is 7:00am to 6:00pm and Night period is 10:00pm to 7:00am.					
Source: Umwelt (2018)					

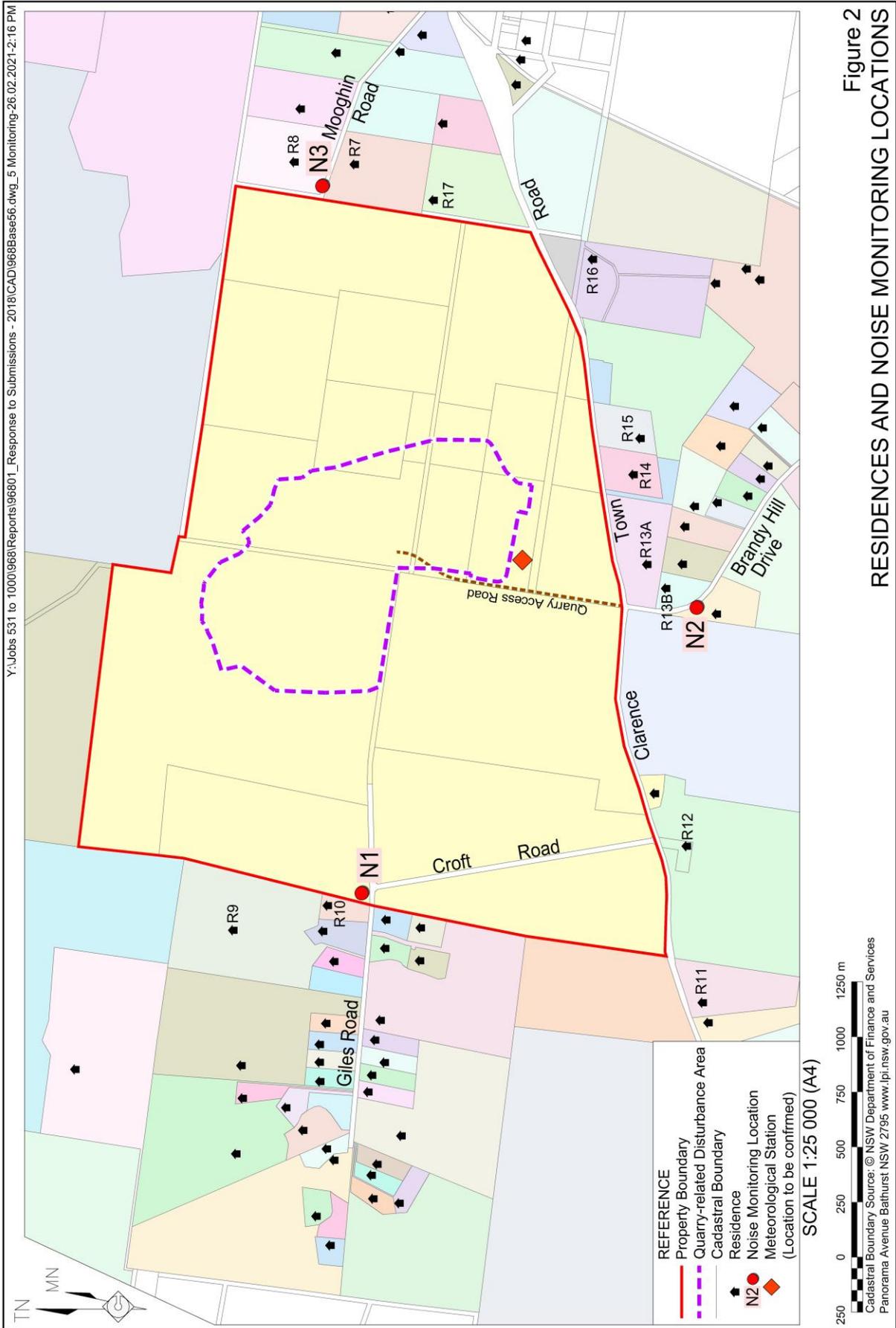


Figure 2

RESIDENCES AND NOISE MONITORING LOCATIONS

Y:\Jobs 531 to 1000\9681\Reports\96801_Response to Submissions - 2018\CAD\968Base56.dwg_5 Monitoring-26.02.2021-2:16 PM

**Table 4
Summary of Noise Monitoring N2**

Year	Location and Period*	Criteria Level (dBA)		Estimated site contribution (dBA)	
		L _{Aeq} 15min	L _{A1} , 1 min	L _{Aeq} , 15min	L _{A1} , 1 min
2018	N2 - Day	36	45	<30	Not Applicable
	N2 - Evening	36	45	Not available	Not Available
	N2 - Night	36	45	<30	Not measurable
2019	N2 - Day	36	45	Not Audible	Not Applicable
	N2 - Evening	36	45	Not Audible	Not Applicable
	N2 - Night	36	45	Not Audible	Not Applicable
2020	N2 - Day	36	45	Not Audible	Not Applicable
	N2 - Evening	36	45	Not Audible	Not Applicable
	N2 - Night	36	45	Not Audible	Not Audible

* See **Figure 2** for monitoring locations. Day period is 7:00am to 6:00pm and Night period is 10:00pm to 7:00am.

Source: Umwelt (2019)

**Table 5
Summary of Noise Monitoring N3**

Year	Location and Period*	Criteria Level (dBA)		Estimated site contribution (dBA)	
		L _{Aeq} 15min	L _{A1} , 1 min	L _{Aeq} , 15min	L _{A1} , 1 min
2018	N3 - Day	36	45	<13	Not Applicable
	N3 - Evening	36	45	Not available	Not Available
	N3 - Night	36	45	<10	30
2019	N3 - Day	36	45	<30	Not Applicable
	N3 - Evening	36	45	Not Audible	Not Applicable
	N3 - Night	36	45	<30	35
2020	N3 - Day	36	45	Not Audible	Not Applicable
	N3 - Evening	36	45	Not Audible	Not Applicable
	N3 - Night	36	45	Not Audible	Not Audible

* See **Figure 2** for monitoring locations. Day period is 7:00am to 6:00pm and Night period is 10:00pm to 7:00am.

Source: Umwelt (2020)

2.5 Equipment Sound Power Levels

Table 6 presents the equipment sound power levels used in the Noise Impact Assessment for the Project (Vipac, 2020).

**Table 6
Quarry Operations – Sound Power Levels (L_w)**

Plant & Equipment	L_{WA} (dB)	Plant & Equipment	L_{WA} (dB)
Primary Crusher (enclosed)	88	Watercart	103
Primary Crusher (opening)	103	Pugmill	111
Screen 1 – Stage 1-3	109	Volvo L250G	101
Secondary Crusher & Screen (enclosed)	87	Truck being loaded	107
Secondary Crusher & Screen (opening)	108	Truck & Dog	108
Crusher 3, 4 + 5 (enclosed)	76	Concrete Agitator	108
Crusher 3, 4 +5 (opening)	97	Pre-coat Plant	99
Screen 1, 2, 3 and 4 (enclosed) – Stages 4 & 5	82	Conveyor Belt	87
Screen 1, 2, 3 and 4 (opening) – Stages 4 & 5	108	Conveyor Driver	80
Screen 5	97	Road Lorry- Full 39t	108
Dump Truck CAT 773B Tipping into Crusher	113	Mobile Crusher	107
Dump Truck CAT 773B	112	Truck revving	105
Dump Truck CAT 773E	112	Drilling Rig	114
Excavator – PC600	99	Grader	113
Excavator – PC450	96	Excavator with mounted Hammer	118
Loader WA 500	101	Crane	104
Source: Vipac (2018) – Table 24			

2.6 Potential Noise Impacts

Potential noise impacts associated with quarry operations relate to operational noise generated through the use of equipment and processing facilities and road traffic noise generated by heavy vehicle traffic. Noise from blasting activities may also cause short-term noise impacts.

Noise generated by Quarry activities also has the potential to wake people from sleep when activities are occurring early in the morning or during the evening period.

2.7 Predicted Impacts

2.7.1 Quarry Operations

The results of noise modelling for each stage of operations at the most impacted residences (as presented in **Figure 2**) undertaken as part of the development application process are presented in **Table 7** to **Table 11**. The results indicate that operational noise levels would generally comply with the relevant assessment criteria, except at residences adjacent to Clarence Town Road that may experience noise levels 1dB(A) to 2dB(A) above the assessment criteria during worst case scenario conditions. That is, during periods when a light wind is blowing from the Quarry towards the residence or during temperature inversion conditions.

The predicted noise impact is considered negligible as a change in noise level of 2dB(A) is not perceptible to the average human ear and therefore these predicted noise levels are unlikely to be perceived by the residents at these locations as intrusive. Regardless, the noise monitoring program and noise management system described in Section 3 would aim to mitigate noise impacts and allow Hanson to monitor performance and respond to noise-related incidents appropriately.

Table 7
Summary of Noise Prediction Results – Operational Stage 1

Residence	Period	Predicted Noise Level (dB(A))
R13A	Day / Evening	36
	Night	35
R13B	Day / Evening	36
	Night	35
R14	Day / Evening	37
	Night	36
R16	Day / Evening	37
	Night	36
R17	Day / Evening	35
	Night	33
All other residences	Day / Evening	<35
	Night	<35

Table 8
Summary of Noise Prediction Results – Operational Stage 2

Residence	Period	Predicted Noise Level (dB(A))
R13A	Day / Evening	36
	Night	35
R13B	Day / Evening	36
	Night	35
R14	Day / Evening	37
	Night	36
R16	Day / Evening	37
	Night	36
R17	Day / Evening	35
	Night	33
All other residences	Day / Evening	<35
	Night	<35

Table 9
Summary of Noise Prediction Results – Operational Stage 3

Residence	Period	Predicted Noise Level (dB(A))
R13A	Day / Evening	36
	Night	35
R13B	Day / Evening	36
	Night	34
R14	Day / Evening	37
	Night	35
R16	Day / Evening	37
	Night	36
R17	Day / Evening	35
	Night	33
All other residences	Day / Evening	<35
	Night	<35

Table 10
Summary of Noise Prediction Results – Operational Stage 4

Residence	Period	Predicted Noise Level (dB(A))
R13A	Day / Evening	35
	Night	36
R13B	Day / Evening	32
	Night	34
R14	Day / Evening	35
	Night	34
R16	Day / Evening	36
	Night	36
R17	Day / Evening	37
	Night	37
All other residences	Day / Evening	<35
	Night	<35

Table 11
Summary of Noise Prediction Results – Operational Stage 5

Residence	Period	Predicted Noise Level (dB(A))
R13A	Day / Evening	36
	Night	36
R13B	Day / Evening	34
	Night	34
R14	Day / Evening	36
	Night	34
R16	Day / Evening	37
	Night	36
R17	Day / Evening	37
	Night	37
All other residences	Day / Evening	<35
	Night	<35

2.7.2 Road Traffic

The road traffic noise assessment used the Calculation of Road Traffic Noise (CoRTN) method to model predicted road traffic noise levels generated by traffic on Brandy Hill Drive. Background monitoring at a location 30m from Brandy Hill Drive was used for the assessment and is considered to be representative of impact at the closest residence to Brandy Hill Drive and is therefore the closest to the noise sources (i.e. passing traffic). The results of the road traffic noise assessment are presented in **Table 12**. Modelled predictions will be compared to the results of annual noise monitoring and presenting in the Annual Review.

Table 12
Existing and Future Traffic Noise Levels dB(A)

Period	Existing Noise Levels (dB(A))	Traffic Generated		Applicable Noise Criteria (dB(A))	Difference (dB(A))
		Proposed Truck Movements	Future Noise Levels dB(A) ¹		
Day period (7am to 10pm)	62.2	603	63.3	64.2 ²	+1.1
Night Period (10pm to 7am)	52.1	117	54.1	55 ³	+2
Note 1: Assessment representative of noise levels at a location 30m from Brandy Hill Drive Note 2: Based on limiting the change in noise to no greater than 2dB(A) Note 3: See Table 20 Source: Vipac (2018a) – Table 48					

2.8 Legal and other Requirements

2.8.1 Development Consent SSD 5899

Hanson has been the owner and operator of the Quarry since 2001, initially under Development Application No 1920 (DA1920) which was originally granted in 1983 to the Hunter Valley Mining Corporation Pty Ltd by Port Stephens Shire Council. In July 2020 the NSW Independent Planning Commission granted SSD 5899 which allows for an expansion and subsequent continuation of operations at the Quarry. Development Consent SSD 5899 was granted on 16 July 2020 by the Independent Planning Commission and is subject to a number of conditional requirements. *Condition B5* requires that a *Noise Management Plan* be prepared to guide the management of noise at the Quarry Site and on surrounding public roads. **Table 13** identifies the conditional requirements and where they are addressed.

Table 13
Development Consent Conditions (SSD 5899) - Noise

Page 1 of 5

Condition No.	Paraphrased Condition	Section
Evidence of Consultation		
A22	Where conditions of this consent require consultation with an identified party, the Applicant must: <ul style="list-style-type: none"> (a) consult with the relevant party prior to submitting the subject document; and (b) provide details of the consultation undertaken including: <ul style="list-style-type: none"> (i) provide details of the consultation undertaken including: (ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved. 	1.5
Buffer Lands		
A34	The Applicant must not use or permit the use of the Buffer Lands for any purpose associated with the development that would generate significant noise or compromise the visual screening or biodiversity value provided by the vegetation on the Buffer Lands, except to manage bushfire risk and for weed and pest control.	2.2

Table 13 (Cont'd)
Development Consent Conditions (SSD 5899) - Noise

Condition No.	Paraphrased Condition	Section																																																							
Operational Noise Criteria																																																									
B1	The Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 2 at any residence on privately-owned land. Table 2: Operational noise Criteria dB(A)	3.1																																																							
	<table border="1"> <thead> <tr> <th rowspan="2">Noise Assessment Location</th> <th>Day</th> <th>Evening</th> <th colspan="2">5 am to 6 am</th> <th colspan="2">6 am to 7 am</th> </tr> <tr> <th><i>L_{Aeq} (15 min)</i></th> <th><i>L_{Aeq} (15 min)</i></th> <th><i>L_{Aeq} (15 min)</i></th> <th><i>L_{A1} (1 min)</i></th> <th><i>L_{Aeq} (15 min)</i></th> <th><i>L_{A1} (1 min)</i></th> </tr> </thead> <tbody> <tr> <td>R13.1</td> <td align="center">36</td> <td align="center">36</td> <td align="center">35</td> <td align="center">45</td> <td align="center">36</td> <td align="center">46</td> </tr> <tr> <td>R13.2</td> <td align="center">36</td> <td align="center">36</td> <td align="center">35</td> <td align="center">45</td> <td align="center">35</td> <td align="center">45</td> </tr> <tr> <td>R14</td> <td align="center">38</td> <td align="center">38</td> <td align="center">35</td> <td align="center">45</td> <td align="center">36</td> <td align="center">46</td> </tr> <tr> <td>R16</td> <td align="center">37</td> <td align="center">37</td> <td align="center">35</td> <td align="center">45</td> <td align="center">36</td> <td align="center">46</td> </tr> <tr> <td>R17</td> <td align="center">37</td> <td align="center">37</td> <td align="center">35</td> <td align="center">45</td> <td align="center">37</td> <td align="center">47</td> </tr> <tr> <td>Other privately-owned residences</td> <td align="center">35</td> <td align="center">35</td> <td align="center">35</td> <td align="center">45</td> <td align="center">35</td> <td align="center">45</td> </tr> </tbody> </table>		Noise Assessment Location	Day	Evening	5 am to 6 am		6 am to 7 am		<i>L_{Aeq} (15 min)</i>	<i>L_{Aeq} (15 min)</i>	<i>L_{Aeq} (15 min)</i>	<i>L_{A1} (1 min)</i>	<i>L_{Aeq} (15 min)</i>	<i>L_{A1} (1 min)</i>	R13.1	36	36	35	45	36	46	R13.2	36	36	35	45	35	45	R14	38	38	35	45	36	46	R16	37	37	35	45	36	46	R17	37	37	35	45	37	47	Other privately-owned residences	35	35	35	45	35	45
	Noise Assessment Location			Day	Evening	5 am to 6 am		6 am to 7 am																																																	
			<i>L_{Aeq} (15 min)</i>	<i>L_{Aeq} (15 min)</i>	<i>L_{Aeq} (15 min)</i>	<i>L_{A1} (1 min)</i>	<i>L_{Aeq} (15 min)</i>	<i>L_{A1} (1 min)</i>																																																	
	R13.1		36	36	35	45	36	46																																																	
	R13.2		36	36	35	45	35	45																																																	
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	R16		37	37	35	45	36	46																																																	
R17	37	37	35	45	37	47																																																			
Other privately-owned residences	35	35	35	45	35	45																																																			
B2	Noise generated by the development must be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy (EPA, 2000). Appendix 4 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.	3.4																																																							
B3	The noise criteria in Table 2 do not apply to a residence if the Applicant has an agreement with the owner/s of that residence or land to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.	Noted																																																							
Noise Operating Conditions																																																									
B4	The Applicant must:																																																								
	(a) take all reasonable steps to minimise all noise from construction and operational activities, including low frequency noise and other audible characteristics, as well as road noise associated with the development;	3.2																																																							
	(b) take all reasonable steps to minimise the noise impacts of the development during noise-enhancing meteorological conditions; when the noise criteria in this consent do not apply (see Appendix 4);	3.2																																																							
	(c) carry out regular attended noise monitoring (once a quarter unless otherwise agreed with the Planning Secretary) to determine whether the development is complying with the relevant conditions of this consent; and	3.4																																																							
(d) regularly assess the noise monitoring data and modify or stop operations on the site to ensure compliance with the relevant conditions of this consent.	3.3.2																																																								
Noise Management Plan																																																									
B5	The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:																																																								
	(a) be prepared by a suitably qualified and experienced person/s;	1																																																							
	(b) be prepared in consultation with the EPA;	1.5																																																							
	(c) describe the measures to be implemented, including the enclosure of all fixed processing equipment and partial enclosure of the mobile crushers, to ensure:	3.2.3																																																							
	i. compliance with the noise criteria and operating conditions in this consent; and																																																								
ii. best practice management is being employed	3.2																																																								

Table 13 (Cont'd)
Development Consent Conditions (SSD 5899) - Noise

Condition No.	Paraphrased Condition	Section
Noise Management Plan (Cont'd)		
	(d) include a monitoring program that:	
	i. is capable of evaluating the performance of the development against the noise criteria;	3.4
	ii. monitors noise at the nearest and/or most affected residences; and	3.4
	iii. includes a protocol for identifying any noise-related exceedance, incident or non-compliance and for notifying the Department and relevant stakeholders of these events.	3.3.2
B6	The Applicant must not commence Stage 1 of the development until the Noise Management Plan is approved by the Planning Secretary and the noise management measures are implemented.	Noted
B7	The Applicant must implement the approved Noise Management Plan.	Noted
Notification of Exceedances		
C1	As soon as practicable and no longer than 7 days after obtaining monitoring results showing an exceedance of any noise, blasting or air quality criterion in PART B of this consent, the Applicant must: (a) provide to any affected landowners and tenants; and (b) publish on its website. the full details of the exceedance.	3.3.2
Independent Review		
C3	If a landowner considers the development to be exceeding any noise, blasting or air quality criterion in PART B of this consent, they may ask the Planning Secretary in writing for an independent review of the impacts of the development on their land.	3.3.2.3
C4	If the Planning Secretary is not satisfied that an independent review is warranted, the Planning Secretary will notify the landowner in writing of that decision, and the reasons for that decision, within 21 days of the request for a review.	3.3.2.3
C5	If the Planning Secretary is satisfied that an independent review is warranted, within 3 months, or as otherwise agreed by the Planning Secretary and the landowner, of the Planning Secretary's decision, the Applicant must: (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Planning Secretary, to: (i) consult with the landowner to determine their concerns; (ii) conduct monitoring to determine whether the development is complying with the relevant criteria in PART B of this consent; and (iii) if the development is not complying with that criteria, identify measures that could be implemented to ensure compliance with the relevant criteria; (b) give the Planning Secretary and landowner a copy of the independent review; and (c) comply with any written requests made by the Planning Secretary to implement any findings of the review.	3.3.2.3
Management Plan Requirements		
D4	Management plans required under this consent must be prepared in accordance with relevant guidelines, and include: (a) a summary of relevant background or baseline data;	2
	(b) details of: (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);	2.7

Table 13 (Cont'd)
Development Consent Conditions (SSD 5899) - Noise

Condition No.	Paraphrased Condition	Section
Management Plan Requirements (Cont'd)		
D4 (Cont'd)	(ii) any relevant limits or performance measures and criteria; and	3.1
	(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	3.1
	(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	3
	(d) a program to monitor and report on the:	align="center">3.4
	(i) impacts and environmental performance of the development; and	
	(ii) effectiveness of the management measures set out pursuant to condition D4;	
	(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	3.3.2
	(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	4.3
	(g) a protocol for managing and reporting any:	align="center">3.3.2
	(i) incident, non-compliance or exceedance of the impact assessment criteria or performance criteria;	
(ii) complaint; or		
(iii) failure to comply with statutory requirements; and	3.3.2.1	
(h) a protocol for periodic review of the plan.	4.5	
<i>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i>		
Revision of Strategies, Plans and Programs		
D5	<p>Within three months of:</p> <ul style="list-style-type: none"> (a) the submission of an incident report under condition D7; (b) the submission of an Annual Review under condition D9; (c) the submission of an Independent Environmental Audit under condition D11; (d) the approval of any modification of the conditions of this consent; (e) notification of a change in development stage under condition A15; or (f) the issue of a direction of the Planning Secretary under condition A2(b) which requires a review; <p>the suitability of existing strategies, plans and programs required under this consent must be reviewed by the Applicant.</p>	4.6
D6	<p>If necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary and submitted to the Planning Secretary for approval within six weeks of the review.</p> <p><i>Note: This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the development.</i></p>	4.6

Table 13 (Cont'd)
Development Consent Conditions (SSD 5899) - Noise

Condition No.	Paraphrased Condition	Section
Reporting and Auditing		
Incident Notification		
D7	The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing through the Department's Major Projects website and identify the development (including the development application number and name) and set out the location and nature of the incident.	4.1
Non-Compliance Notification		
D8	<p>Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing to through the Department's Major Projects website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.</p> <p><i>Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.</i></p>	4.1
Annual Review		
D9	By the end of March in each year after the commencement of development, or other timeframe agreed by the Planning Secretary, a report must be submitted to the Department reviewing the environmental performance of the development, to the satisfaction of the Planning Secretary.	4.4
D10	Copies of the Annual Review must be submitted to Council and made available to the CCC and any interested person upon request.	4.4
Independent Environmental Audit		
D11	Within one year of the commencement any development under this consent, and every three years after, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development.	4.5
D12	Within three months of commencing an Independent Environmental Audit, or within another timeframe agreed by the Planning Secretary, the Applicant must submit a copy of the audit report to the Planning Secretary, and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The recommendations must be implemented to the satisfaction of the Planning Secretary.	4.5
Monitoring and Environmental Audits		
D13	<p>Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance report and independent audit.</p> <p>For the purposes of this condition, as set out in the EP&A Act, "monitoring" is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an "environmental audit" is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.</p>	3.4
D14	Noise, blast and/or air quality monitoring under this consent may be undertaken at suitable representative monitoring locations instead of at privately-owned residences or other locations listed in Part B, providing that these representative monitoring locations are set out in the respective management plan/s.	3.4
D15	<p>Before the commencement of construction until the completion of all rehabilitation required under this consent, the Applicant must:</p> <p>(a) make the following information and documents (as they are obtained, approved or as otherwise stipulated within the conditions of this consent) publicly available on its website: ...</p> <p>(iv) all approved strategies, plans and programs required under the conditions of this consent;</p> <p>(vi) a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs.</p>	3.6

2.8.2 Environment Protection Licence 1879

Environment Protection Licence (EPL) 1879 contains a number of conditional requirements relating to the management of noise generated by the Quarry. **Table 14** identifies each of these conditional requirements and identifies the section of this Plan where each is addressed.

Table 14
Environment Protection Licence 1879 – Noise

Page 1 of 2

Condition No.	Condition	Section																																							
Limit Conditions																																									
L1.1	<p>Noise generated at the premises must not exceed the noise limits in the table below.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="text-align: left;">Location</th> <th colspan="4" style="text-align: center;">NOISE LIMITS dB(A)</th> </tr> <tr> <th style="text-align: center;">Day L_{Aeq} (15 minute)</th> <th style="text-align: center;">Evening L_{Aeq} (15 minute)</th> <th style="text-align: center;">Night L_{Aeq} (15 minute)</th> <th style="text-align: center;">Night L_{A1}(1minute)</th> </tr> </thead> <tbody> <tr> <td>R14 – 1034 Clarence Town Road</td> <td style="text-align: center;">38</td> <td style="text-align: center;">38</td> <td style="text-align: center;">36</td> <td style="text-align: center;">46</td> </tr> <tr> <td>R17 – 1189 Clarence Town Road</td> <td style="text-align: center;">37</td> <td style="text-align: center;">37</td> <td style="text-align: center;">37</td> <td style="text-align: center;">47</td> </tr> <tr> <td>R16 – 1094 Clarence Town Road</td> <td style="text-align: center;">37</td> <td style="text-align: center;">37</td> <td style="text-align: center;">36</td> <td style="text-align: center;">46</td> </tr> <tr> <td>R13.1 – 994 Clarence Town Road</td> <td style="text-align: center;">36</td> <td style="text-align: center;">36</td> <td style="text-align: center;">36</td> <td style="text-align: center;">46</td> </tr> <tr> <td>R13.2 – 104 Brandy Hill Drive</td> <td style="text-align: center;">36</td> <td style="text-align: center;">36</td> <td style="text-align: center;">35</td> <td style="text-align: center;">45</td> </tr> <tr> <td>Any other residential receiver not subject to a negotiated agreement</td> <td style="text-align: center;">35</td> <td style="text-align: center;">35</td> <td style="text-align: center;">35</td> <td style="text-align: center;">45</td> </tr> </tbody> </table> <p><i>Note: Location numbers are taken from the Updated Noise Impact Assessment for the Brandy Hill Quarry Expansion prepared by Vipac (Ref 29N-14-0060-TRP-822352-13, dated 26 September 2018).</i></p>	Location	NOISE LIMITS dB(A)				Day L _{Aeq} (15 minute)	Evening L _{Aeq} (15 minute)	Night L _{Aeq} (15 minute)	Night L _{A1} (1minute)	R14 – 1034 Clarence Town Road	38	38	36	46	R17 – 1189 Clarence Town Road	37	37	37	47	R16 – 1094 Clarence Town Road	37	37	36	46	R13.1 – 994 Clarence Town Road	36	36	36	46	R13.2 – 104 Brandy Hill Drive	36	36	35	45	Any other residential receiver not subject to a negotiated agreement	35	35	35	45	3.1
Location	NOISE LIMITS dB(A)																																								
	Day L _{Aeq} (15 minute)	Evening L _{Aeq} (15 minute)	Night L _{Aeq} (15 minute)	Night L _{A1} (1minute)																																					
R14 – 1034 Clarence Town Road	38	38	36	46																																					
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R13.2 – 104 Brandy Hill Drive	36	36	35	45																																					
Any other residential receiver not subject to a negotiated agreement	35	35	35	45																																					
L1.2	<p>For the purpose of the condition L1.1:</p> <p>a) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holidays;</p> <p>b) Evening is defined as the period 6pm to 10pm; and</p> <p>c) Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holidays.</p>	Noted																																							
L1.3	<p>The noise limits set out in condition L1.1 apply under all meteorological conditions except for the following:</p> <p>a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or</p> <p>b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or</p> <p>c) Stability category G temperature inversion conditions.</p>	Noted																																							
L1.4	<p>For the purposes of condition L1.3:</p> <p>a) Data recorded by a meteorological station installed on site must be used to determine meteorological conditions; and</p> <p>b) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.</p>	3.5																																							
L1.5	<p>To determine compliance:</p> <p>a) with the Leq(15 minute) noise limits in condition L1.1, the noise measurement equipment must be located:</p> <ol style="list-style-type: none"> i. approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or ii. within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable iii. within approximately 50 metres of the boundary of a National Park or a Nature Reserve. 	See condition D14																																							

Table 14 (Cont'd)
Environment Protection Licence 1879 – Noise

Condition No.	Condition	Section
Limit Conditions (Cont'd)		
L1.5 (Cont'd)	b) with the LA1(1 minute) noise limits in condition L1.1, the noise measurement equipment must be located within 1 metre of a dwelling façade. c) with the noise limits in condition L1.1, the noise measurement equipment must be located: <ol style="list-style-type: none"> i. at the most affected point at a location where there is no dwelling at the location; or ii. at the most affected point within an area at a location prescribed by conditions L6.5(a) or L6.5(b). 	
L1.6	A non-compliance of condition L1.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured: <ol style="list-style-type: none"> a) at a location other than an area prescribed by conditions L6.5(a) and L6.5(b); and/or b) at a point other than the most affected point at a location. 	Noted
Monitoring Conditions		
M1.1	To assess compliance with Condition L1.1, attended noise monitoring must be undertaken in accordance with Conditions L1.5 and: <ol style="list-style-type: none"> a) at each one of the locations listed in Condition L1.1; b) occur annually in a reporting period; c) occur during each day, evening and night period as defined in the NSW Industrial Noise Policy for a minimum of: <ol style="list-style-type: none"> i. 1.5 hours during the day; ii. 30 minutes during the evening; and iii. 1 hour during the night. d) occur for three consecutive operating days. 	Noted
M1.2	Conditions M1.1 and R1.1 may be suspended by the approval authority if ongoing monitoring demonstrates compliance with relevant limit conditions.	Noted
Reporting Conditions		
R1.1	A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the yearly monitoring in accordance with condition M1.1. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include: <ol style="list-style-type: none"> a) an assessment of compliance with noise limits presented in Condition L1.1; and b) an outline of any management actions taken within the monitoring period to address any exceedances of the limits contained in Condition L1.1. 	3.6

2.8.3 Statement of Commitments

The Statement of Commitments for the Quarry are presented in the Amended RTS (RWC, 2019) and include the following commitments relevant to noise management.

Noise Management

- Ensure stockpiles and ancillary equipment are positioned to mitigate potential noise impacts.
- Maintain all equipment located on site to adhere to existing noise standards and ensure that noise generated by equipment is not exacerbated.
- Modify operations at exposed locations and under unfavourable weather conditions, where necessary and without compromising safety, to reduce potential noise-related impacts.

- Maintain the internal road network to reduce body noise from empty trucks.
- Construct an acoustic barrier along the Quarry Access Road to mitigate noise generated by heavy vehicles on the Quarry Access Road.
- Implement an operational noise monitoring program, in consultation with DPIE, involving quarterly monitoring for a two-year period at the locations to the south, east and west of the Quarry. After an initial two years of monitoring, the frequency of monitoring would be reduced to bi-annual, assuming that there are no identifiable seasonal trends in results.
- Undertake bi-annual monitoring of road traffic noise on Brandy Hill Drive. The location of monitoring will be established in the Noise Management Plan.
- Undertake an annual survey of sound power levels for all mobile equipment to demonstrate equipment is not exceeding noted levels within the Updated Noise Impact Assessment (Appendix 5).
- Prepare and implement a site Noise and Blast Management Plan and/or monitoring program for the life of the Project. Regularly review and update the plan in accordance with the requirements of the Project Approval.

3. Noise Management System

3.1 Noise Criteria

In accordance with Condition B1 of SSD 5899, the noise criteria at any residence on privately-owned land for all activities undertaken during development and operation are presented in **Table 15**.

Table 15
Noise Criteria

Noise Assessment Location	Day	Evening	5 am to 6 am		6 am to 7 am	
	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{A1} (1 min)	L _{Aeq} (15 min)	L _{A1} (1 min)
R13A	36	36	35	45	36	46
R13B	36	36	35	45	35	45
R14	38	38	35	45	36	46
R16	37	37	35	45	36	46
R17	37	37	35	45	37	47
Other privately-owned residences	35	35	35	45	35	45

Consistent with Condition B3, the noise criteria in **Table 15** do not apply to a residence if Hanson has an agreement with the owner/s of that residence or land to exceed the noise criteria, and Hanson has advised the DPIE in writing of the terms of the agreement.

For the purpose of monitoring and assessment of compliance:

- Day is defined as the period from 7:00am to 6:00pm Monday to Saturday and 8:00am to 6:00pm Sunday and Public Holidays;
- Evening is defined as the period 6:00pm to 10:00pm; and
- Night is defined as the period from 10:00pm to 7:00am Monday to Saturday and 10:00pm to 8:00am Sunday and Public Holidays.

3.2 Pre-Emptive Management Measures

3.2.1 Operating Hours

The operating hours for the Quarry are provided below in **Table 16**.

3.2.2 Design Noise Controls

A range of standard and site-specific controls would be implemented to control dust generation and dispersion as part of planning and design of the Quarry. These measures include the following.

- The internal road network would continue to be surfaced with well graded materials to reduce noise generation.
- An earthen amenity barrier located to the south of the Quarry Site would be constructed during Stage 1 of operations and would be between 18m and 20m high.

**Table 16
Operating Hours**

Activity	Permissible Hours
Construction work	7 am to 6 pm Monday to Friday 7 am to 5pm Saturday At no time on Sundays or public holidays
Product loading and dispatch	6 am to 6 pm Monday to Friday 6 pm to 10 pm Monday to Friday on 20 days per calendar year 6 am to 6 pm Saturday At no time on Sundays or public holidays
Quarrying operations (excluding secondary and tertiary processing)	6 am to 6 pm Monday to Saturday At no time on Sundays or public holidays
Secondary and tertiary processing	6 am to 8 pm Monday to Friday 6 am to 6 pm Saturday At no time on Sundays or public holidays
Blasting	9 am to 5 pm Monday to Friday (except public holidays)
Maintenance, security, office work, cleaning, etc	May be conducted at any time, provided that these activities are not audible at any residence on privately-owned land

- Earthen amenity barriers of various lengths and heights would be temporarily constructed for each stage of operations and strategically located within the Processing and Stockpiling Area.
- An acoustic barrier would be constructed along the Quarry Access Road to mitigate noise generated by heavy vehicles on the Quarry Access Road.
- Replacement or additional processing equipment would have the same or lower sound power levels as that assumed for the predictive modelling assessment.

3.2.3 Enclosure of Processing Equipment

The principal design control for potential noise impacts is the enclosure of all fixed crushing and screening equipment. In addition to the enclosure of fixed equipment, the conveyor transfer points would be partially enclosed after Stage 4 of operations once the new processing plant is constructed.

Hanson has also committed to partially enclosing the mobile crushing equipment used for concrete recycling activities. As the equipment is mobile it is not possible to completely enclose it. However, Hanson has committed to the use of stacked shipping containers and a temporary roof structure to mitigate dust generated through this process. These structures would be in place whenever this mobile equipment is in use.

3.2.4 Operational Noise Controls

The following noise mitigation and management measures are currently implemented at the Quarry and would be continued over the life of the Quarry:

- All operations are undertaken in accordance with the approved hours of operation.
- Stockpiles and ancillary equipment are positioned to limit potential noise impacts.
- All equipment on site is maintained to adhere to existing noise standards and ensure that noise generated by equipment is not exacerbated.
- Operations at exposed locations and under unfavourable weather conditions are modified, where necessary, to reduce potential noise-related impacts.
- The internal road network is maintained to reduce body noise from empty trucks.

3.2.5 Road Traffic Noise Controls

Road traffic noise management measures that will be implemented over the life of the Quarry include the following:

- Compliance with the approved hours of operation for product loading and despatch (**Table 16**).
- Compliance with the maximum number of truck movements per day as follows.
 - 24 movements between 6:00 am and 7:00 am;
 - 60 movements per hour between 7:00 am and 6:00 pm;
 - 10 movements per hour between 6:00 pm and 10:00 pm, on up to 20 evenings per calendar year; and
 - 600 movements per calendar day.
- A trial of a reduced speed limit for all heavy vehicles involved in transportation activities to 60km/hr (from the existing speed of 80km/hr) on Brandy Hill Drive (as described in the Traffic Management Plan).
- All drivers would be required to review and sign a Driver’s Code of Conduct (provided in the Traffic Management Plan as Appendix 1) that directs driver behaviour during transportation activities. Issues addressed in the code of conduct would include:
 - advice for quiet driving practices and measures to reduce vehicle noise;
 - limiting the use of compression braking unless required for safety reasons;
 - advice for management of driver fatigue;
 - load covering for all laden vehicles;
 - timing for departure and arrival to remain within approved limits and avoid convoying;
 - management of breakdowns and incidents;
 - awareness of school buses, school zones, pedestrians and cyclists on roads;
 - use of preferred transportation routes; and
 - limiting the use of local roads unless directed by emergency services.
- Ongoing maintenance of the condition of the Quarry Access Road to limit noise generated from potholes or edgewear.
- Maintenance of a complaints and incidents register for all traffic-related matters.

It is also noted that funds contributed to Port Stephens Council for road maintenance may be used to improve the condition of Brandy Hill Drive and/or Clarence Town Road to provide road noise mitigation (such as improvements to the road surface). It is estimated that over the proposed 30-year life of the Brandy Hill Extension Project, there will be more than \$12 million in road infrastructure and maintenance contributions. It is possible that a portion of these funds may be directed towards improving the surface of the road to improve traffic noise generated by all traffic using the road.

3.3 Reactive Management

3.3.1 Triggers

Reactive management will be applied. The following triggers are in place to provide for:

1. **Exceedance of Noise Criteria** – Any monitoring record of noise levels exceeding the criteria provided in Section 3.1 will trigger the response and corrective action measures described in Section 3.3.2.1.
2. **Noise Complaint** – Any complaint received, either directly or indirectly via Council, EPA or other regulatory agency, will trigger the implementation of the response and corrective action measures described in Section 3.3.2.2. Complaints may also trigger a request for independent review of the impacts of the development as described in Section 3.3.2.3.
3. **Predicted Adverse Weather Conditions** – such as high winds would be considered as triggers for reactive management as described in Section 3.3.2.4.

3.3.2 Response and Corrective Actions

3.3.2.1 Noise Monitoring Exceedance

If noise monitoring indicates that the approved criteria has been exceeded, the following response and action plan will be implemented.

1. The Quarry Manager will be notified of the potential non-compliance.
2. Hanson will immediately investigate the source of the noise, review the activities undertaken at the time and if necessary amend operations to reduce noise generation.
3. DPIE and the EPA would be notified immediately of the non-compliance.
4. An investigation into the potential non-compliance would be instigated, with the objective of identifying the following, where appropriate:
 - the date and time of the non-compliance;
 - the duration of the non-compliance;
 - whether the non-compliance was directly related to operations within the Quarry or if any other factors contributed to the non-compliance;
 - the primary cause of the non-compliance;
 - any contributing factors which led to the non-compliance;
 - whether appropriate controls were implemented to prevent the non-compliance; and
 - corrective and preventative measures that may be implemented to prevent a recurrence of the non-compliance.
5. Within 7 days of the date of identifying the non-compliance Hanson will provide a detailed report to DPIE and the EPA. The report shall (at a minimum):
 - a. be made in writing through the Major Projects Portal;
 - b. identify the development (including the development application number and name);
 - c. set out the condition of consent that the development is non-compliant with
 - d. why it does not comply and the reasons for the non-compliance (if known); and
 - e. what actions have been, or will be, undertaken to address the non-compliance.
6. Within 7 days of obtaining any data showing an exceedance of noise criteria, Hanson will notify in writing any affected residents in accordance with Condition C1 of SSD 5899.

Following completion of the investigation, Hanson will:

1. Provide a copy of the completed investigation report to DPIE, the EPA and affected residents.
2. Implement the corrective and preventative actions identified in the investigation report.
3. Publish the investigation report on its website and present the findings to the CCC.

Any exceedance of the approved noise criteria will be reported to EPA in the Annual Return and to DPIE in the Annual Review.

3.3.2.2 Noise Complaint(s) Handling and Response

The *Environmental Management Strategy* includes a detailed complaints management procedure. This sub-section records the procedures that would be implemented following receipt of a noise-related complaint, which may be received through one of the following methods.

- Directly via Hanson's 24-hour, 7 day per week general Emergency Line (1800 882 478). This number will be advertised on signage at the Quarry entrance and on Hanson's website.
- Directly via the customer feedback / complaint / incident portal on the Hanson website.
- Indirectly via a government agency.

In addition, consultation will be held with the community as part of Hanson's standard consultation procedures, namely informal meetings with surrounding landholders as required and meetings of the Community Consultative Committee. These meetings will provide a further forum at which complaints may be received.

Following receipt of any noise-related complaint, the following procedure will be implemented.

1. The complaint will be reviewed by the Quarry Manager or their delegate to determine the nature, date and time of the complaint. This will include contacting and meeting with the complainant as required.
2. Relevant monitoring data will be reviewed.
3. Should the monitoring results indicate that no exceedance of the assessment criteria identified in Section 3.1, the Quarry Manager will continue to consult with the complainant in relation to managing impacts associated with the Quarry.
4. Should the monitoring indicate an exceedance of the relevant criteria, the Quarry Manager will notify the DPIE and EPA and will implement the procedures identified in Section 3.3.2.1. In addition, the Quarry Manager will continue to consult with the complainant, as required, in relation to the complaint, until the issue is resolved.
5. In the event that multiple complaints are received from the same individual(s) and the Quarry can demonstrate:
 - at least three complaints from the complainant, with demonstrated compliance with the relevant criteria in each case; and
 - there is documented evidence of a genuine attempt by the Quarry to discuss the issue and seek a resolution with the complainant without success.

The Quarry may, in consultation with the relevant government agencies, limit responses to further complaints to Steps 1 and 2 above.

All complaints would be recorded using a proforma complaints record sheet, with a description of the nature and the outcome of the complaint and subsequent investigation provided in summary form to the Community Consultative Committee and in the Annual Review/Annual Return. The complaints register will be published on the Hanson website on a quarterly basis.

3.3.2.3 Noise Complaints and Independent Review of Operations

Condition C3 permits landowners who believe that noise level criteria exceedances are or have occurred from the Quarry to request from Government (DPIE) an independent review of the impacts of the operation on their land. Should DPIE consider that a review is not warranted it will notify the landowner of this decision and the reasons for it within 21 days of the request.

However, if DPIE determine that the review is warranted and notifies Hanson of the decision, within 3 months of notification Hanson must:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been endorsed by DPIE, to:
 - (i) consult with the landowner to determine their concerns;
 - (ii) conduct monitoring to determine whether the development is complying with the relevant criteria; and
 - (iii) if the development is not complying with that criteria, identify measures that could be implemented to ensure compliance with the relevant criteria;
- (b) Provide DPIE and landowner a copy of the independent review; and
- (c) comply with any written requests made by DPIE to implement any findings of the review.

The outcomes of any independent review will be published in the Annual Review and on the Hanson website.

3.3.2.4 Predicted Adverse Weather Conditions

It is noted that noise criteria still apply during adverse weather conditions such as high winds. Should local weather predictions include the potential for adverse weather conditions, Hanson will limit or modify operational activities, based on weather predictions to minimise the potential of noise impacts and ensure compliance during these periods.

3.4 Noise Monitoring

3.4.1 Attended Noise Monitoring

The purpose of the attended noise monitoring program is to determine compliance with the criteria identified in Condition B1 of the Development Consent and to monitor the environmental impacts of the operation. Appendix 4 of SSD 5899 refers to specific conditions to be satisfied for all noise compliance monitoring and must be considered in planning for all noise monitoring.

Figure 2 presents the ongoing attended noise monitoring locations. Hanson has consulted with the owners of each of the identified residences and received approval for the monitoring to be undertaken. Should circumstances require, the monitoring locations may be amended.

In addition, noise monitoring at additional locations may be undertaken if required. This may include, for example, in response to a noise-related complaint.

Attended noise monitoring will be undertaken by an independent, suitably qualified acoustic consultant. A noise compliance assessment must be undertaken within two months of commencement of quarrying operations and then quarterly for the first two (2) years of operation as a minimum, following commencement of Stage 1. Once two years of data is available and demonstrates compliance, noise monitoring frequency may be reduced with the approval of the Planning Secretary. Hanson may undertake more frequent attended noise monitoring during the initial stages of the Quarry to ensure that the proposed noise-related management and mitigation measures are operating as anticipated.

All attended noise monitoring will be conducted in accordance with the requirements of the following documents.

- Noise Policy for Industry (2017) excluding the application of appropriate modifying factors for low frequency noise during compliance testing. This will be undertaken in accordance with Fact Sheet C of the *NSW Noise Policy for Industry* (EPA, 2017)..
- AS 1055:2018 Acoustics – Description and Measurement of Environmental Noise.
- Appendix 4 of SSD 5899 - with regards applicable meteorological conditions and general conditions on compliance monitoring.

Attended monitoring will be undertaken using a Type 1 integrating sound level meter with 1/3 octave filter, and will be set to A-weighting (fast response). Attended noise monitoring will expressly seek to identify and quantify modification factors.

All acoustic instrumentation employed throughout the monitoring program will comply with the requirements of *AS/NZS IEC 61672.1:2019 Electroacoustics – Sound Level Meters Specifications*, as amended, and will carry current NATA or manufacturer calibration certificates. Instrument calibration will be checked before and after each survey, with the variation in calibrated levels not exceeding ± 0.5 dBA.

Typically, measurements will be taken during the day, evening and night-time period at each monitoring location so that noise levels during the full range of operating times / activities are monitored. The maximum (L_{Amax}), average maximum (L_{A10}) and the energy equivalent (L_{Aeq}) intrusive noise level from mining operations over a 15 minute measurement period will be recorded. In addition, the operator will quantify and characterise the overall levels of ambient noise (i.e. L_{Amax} , L_{A1} , L_{A10} , L_{A50} , L_{A90} , L_{A99} , L_{Amin} and L_{Aeq}) over the 15 minute measurement interval. Where possible, monitoring will occur within a 24-hour period.

Information that will be recorded during monitoring and about each location will include:

- the operator's name;
- monitoring locations;
- recording intervals (date and time);
- meteorological conditions (i.e. temperature, humidity, cloud cover, and wind speed and direction);
- statistical noise level descriptors together with notes identifying the principal noise sources;
- instrument make, model, serial number and calibration details; and
- a brief description of activities occurring within the Project Site during the monitoring period.

Any significant quarry generated noise sources (i.e. haul trucks, bulldozers, front-end loaders, etc.) will be recorded, together with any extraneous noise sources. In addition, Hanson will maintain copies of the relevant fixed plant and mobile equipment mining operating shift logs and operating locations for inclusion in the noise monitoring report.

In the event of an exceedance of the relevant noise criteria, the noise consultant will contact the Quarry Manager to advise them of the exceedance and inform them of the location, margin of exceedance and source of noise emission. The Quarry Manager would implement the reactive management measures included in Section 3.3.2.1.

3.4.2 Traffic Noise Monitoring

Road traffic noise monitoring would be undertaken on a bi-annual basis at location N2 (**Figure 2**). This program will involve placement of a noise monitor for a minimum of seven days with data correlated with weighbridge data to provide estimates of quarry-related contributions to noise levels. Noise monitoring results will provide the following information that will be included in the noise monitoring report and presented in the Annual Review.

- Average weekday daytime (7:00am to 10:00pm) noise levels ($L_{Aeq\ 15hour}$).
- Average weekday night-time (10:00pm to 7:00am) noise levels ($L_{Aeq\ 9hour}$).
- Average weekend daytime (7:00am to 10:00pm) noise levels ($L_{Aeq\ 15hour}$).
- Average weekend night-time (10:00pm to 7:00am) noise levels ($L_{Aeq\ 9hour}$).

The noise monitoring results will be compared to predicted noise levels and identify any trends in noise generation.

3.4.3 Supplementary Noise Surveys

In the event of a noise-related complaint, Hanson may undertake supplementary attended noise surveys in accordance with the procedures identified in Section 3.4.1.

3.4.4 Equipment Sound Power Levels

Each year, sound power levels of equipment used at the Quarry will be surveyed by a suitably experienced person. The data will provide a general indication of noise being produced by noise sources and demonstrate that equipment service to manufacturer's requirements is occurring and equipment isn't generating significantly more noise than was assumed for assessment.

It should be noted that equipment used at the Quarry may change from year to year as technology improves and equipment nears an age that requires replacement. This is common practice in quarrying operations.

Regardless, the general compliance of the operation will be determined in attended compliance noise monitoring that considers the cumulative noise levels produced during operations.

3.5 Meteorological Monitoring

All attended noise measurements will be accompanied by a qualitative description of meteorological conditions, including cloud cover.

In addition, an Automated Weather Station (AWS) is located at adjacent to the quarry access road (see **Figure 2**) to provide meteorological information for use as part of the environmental monitoring program, including noise monitoring, and for management of operations at the Quarry. The AWS records the following data at the Site:

- rainfall;
- temperature at 10m;
- temperature at 2m;
- relative humidity;
- net solar radiation;
- sigma theta;
- wind direction; and
- wind speed.

The AWS installed at the Quarry:

- complies with the requirements in the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* (DEC, 2007); and
- is capable of measuring meteorological conditions in accordance with the *NSW Industrial Noise Policy* (EPA, 2000),

3.6 Publication of Monitoring Information

A copy of all noise monitoring reports will be provided to the DPIE and the EPA within 30 days of the monitoring occurring.

Hanson will publish noise-related information on Hanson's website. Specific publication requirements include the following:

- A copy of this Plan and any assessment document relating to noise.
- A copy of all noise monitoring reports of all noise monitoring results within 30 days of the date of monitoring.
- The Annual Review for the period 1 January to 31 December of each year, will be published within fourteen (14) days of acceptance by DPIE.
- All noise exceedance investigation reports will be made publicly available on the Quarry website within fourteen days of being finalised and accepted by DPIE.
- Incident investigation reports will be made publicly available within fourteen (14) days of being provided to the relevant regulator.

All information published to the website will be kept up to date.

Finally, Hanson will also provide the Community Consultative Committee with a copy of the above documentation.

The Environment, Planning and Compliance Coordinator will be responsible for publication of all relevant monitoring information.

4. Management of Compliance

4.1 Incident Management

4.1.1 Incident Identification

Condition D7 of SSD 5899 requires Hanson to notify DPIE and any other relevant agencies immediately after becoming aware of an incident. The notification must be in writing through the Department's Major Projects website and identify the development (including the development application number and name) and set out the location and nature of the incident. In this case an incident is defined as an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance.

Similarly, Condition R2 of EPL 1879 requires that the Quarry must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident.

For the purpose of noise management at the Quarry, material harm is harm that:

- involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; or
- results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment).

An incident which causes or threatens to cause material harm to the environment (and may or may not result in an exceedance of criteria) is referred to as a **Pollution Incident**.

An incident which is only as a result of an exceedance of criterion, is referred to as a **Non-compliance Incident**.

Substantiated complaints received by the Quarry will not be considered incidents but will trigger an investigation and subsequent feedback to the complainant.

4.1.2 Non-compliance Incident

On identification of a non-compliance against the noise related conditions of SSD 5899, which may follow receipt of a complaint, the Quarry Manager will be notified and an investigation into the source of the non-compliance or complaint will be commenced in accordance with the response and corrective actions described in Section 3.3.2.

4.1.3 Pollution Incident

In the event of an incident which is deemed a Pollution Incident, the Quarry Manager and Environment, Planning and Compliance Coordinator will be notified, who will immediately (first practical opportunity) notify DPIE and the EPA (using the Environmental Line 131 555). Following notification, the Quarry Manager will initiate an investigation (as described in Section 3.3.2) into the cause and once identified the Quarry Manager or delegate will implement corrective measures (to be identified as part of the investigation).

Corrective and/or preventative actions will be assigned to relevant Hanson personnel. Actions will be communicated internally through planning meetings and toolbox talks and outstanding actions will be monitored for their effectiveness upon completion.

4.1.4 Incident Notification and Reporting

In the event that an initial investigation concludes that an exceedance of an environmental criterion was directly attributed to activities associated with the Quarry, as described in Section 3.5.2, the event will be reported to the DPIE and the EPA immediately upon confirmation of the exceedance.

Within 7 days of identifying the exceedance, Hanson will submit a written report with regular updates on the status of the additional mitigation actions to DPIE, the EPA and the affected resident or complainant, in accordance with the procedures identified in Section 3.3.2. In addition, a copy of all reports will be provided to the Community Consultative Committee, made publicly available on the Quarry website and will be included in the *Annual Review*.

The Environment, Planning and Compliance Coordinator will be responsible for incident reporting.

4.2 Evaluation of Compliance

An evaluation of compliance with the conditions of approval will be undertaken as follows:

- A summary of any complaints would be published quarterly and measures undertaken to investigate and resolve those complaints.
- A summary of noise monitoring results will be published within 30 days of receipt of the compliance monitoring report. The summary will include a review of compliance with all noise criteria.
- A review of all noise monitoring results captured over the preceding year and any trends identified in the data as well as comparison with the predicted noise levels will be presented in the *Annual Review*.

4.3 Continual Improvement

Opportunities for improvement of noise-related impacts will be discussed internally at toolbox meetings, in conjunction with all Quarry personnel. These opportunities would be presented to the Quarry Manager for consideration and any changes to operations as a result reported on as part of the *Annual Review* or, where relevant, reflected in an updated Plan.

In addition, general compliance, noise monitoring outcomes and the number of complaints would be used as an indication of the effectiveness of management. This includes issues identified through the Annual Review preparation (Section 4.4) and the outcomes of any Independent Environmental Audit of the operation (Section 4.5). Incidents (as defined in Section 4.1) would be triggers for review of the noise management system and update to management, where necessary.

4.4 Annual Review

In accordance with Condition D9 and D10 of SSD 5899, by the end of March in each year after the commencement of development, or other timeframe agreed with the Planning Secretary, an Annual Review will be submitted to DPIE reviewing the environmental performance of the development.

The approach to preparing and the contents of the Annual Review are described in Section 5.9 of the Environmental Management Strategy and are not repeated here.

Noise-related matters that will be reported in the Annual Review include the following as relevant for the calendar year of reporting.

- A summary of the outcomes of noise management for the period and that proposed for the following year.
- Any changes to noise management that occurred as part of operations during the year or that are proposed for the following year.
- The outcomes of all monitoring described in Section 3.4.
- A review of any incidents or complaints that relate to noise management.
- A statement regarding compliance with noise-related conditions of consent for the period.

Copies of all Annual Reviews will be available from the Hanson website. Each year a copy of the Annual Review will be submitted via the Major Projects Portal and electronically submitted to Council. Copies will be made available to the CCC and any interested person upon request.

4.5 Independent Environmental Audit

Within one year of the commencement of Stage 1 of operations, and every three years thereafter, unless the Planning Secretary directs otherwise, Hanson will commission an Independent Environmental Audit of the development.

The audit process is described in detail in Section 5.10 of the Environmental Management Strategy and is not repeated here, However, the audit will provide an independent evaluation of the performance of measures implemented under the Plan and provide recommendations for improvement or update.

Within three months of commencing an Independent Environmental Audit, or within another timeframe agreed by the Planning Secretary, Hanson will submit a copy of the audit report to the Planning Secretary, and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations.

Any recommendations agreed through the audit process will be implemented by Hanson consistent with the timetable approved by the Planning Secretary.

4.6 Review

In accordance with *Condition D5*, this Plan will be reviewed within three months of:

- (a) the submission of an incident report under condition D7;
- (b) the submission of an Annual Review under condition D9;
- (c) the submission of an Independent Environmental Audit under condition D11;
- (d) the approval of any modification of the conditions of this consent;
- (e) notification of a change in development stage under condition A15; or
- (f) the issue of a direction of the Planning Secretary under condition A2(b) which requires a review,

The Reviewed plan will be submitted to the Planning Secretary for approval within six weeks of finalisation of the review.

In addition, this Plan will be reviewed and updated, should it be required, at the commencement of a new operational stage of development.

The Environment, Planning and Compliance Coordinator will be responsible for review of the Plan.

5. References

Environment Protection Authority (EPA) (2000) *NSW Industrial Noise Policy*.

Vipac Engineers and Scientists Limited (VIPAC) (2018) Brandy Hill Quarry Expansion – Updated Noise and Vibration Impact Assessment, dated September 2018.

Hanson Construction Materials Pty Ltd (2017). *Environmental Impact Statement Report* Brandy Hill Expansion Project, dated February 2017.

R.W. Corkery & Co. Pty Limited (RWC) (2019). *Amended Response to Submissions*, prepared for Hanson Construction Materials Pty Ltd, dated September 2019.

Umwelt (Australia) Pty Limited (Umwelt) (2018) *Attended Environmental Noise Monitoring*, May 2018

Umwelt (Australia) Pty Limited (Umwelt) (2019) *Attended Environmental Noise Monitoring*, May 2019

Umwelt (Australia) Pty Limited (Umwelt) (2020) *Attended Environmental Noise Monitoring*, April 2020

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Appendix 1

Government Agency Consultation Correspondence

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DOC21/160509-2

Department of Planning, Industry and Environment

Returned via the Major Projects Portal

29 March 2021

Attention: Genevieve Lucas

Planning Referral - Brandy Hill Quarry Expansion Project (SSD-5899-PA-4) – Noise Management Plan

Dear Ms Lucas

I refer to the email from the Department of Planning, Industry and Environment (DPIE) of 4 March 2021, requesting the Environment Protection Authority (EPA) review and comment on the Brandy Hill Quarry Expansion Noise Management Plan, document (SSD-5899-PA-4) dated 2 March 2021.

The EPA encourages the development and use of such plans to ensure that proponents have met their statutory obligations and designed environmental objectives.

Being a regulatory authority, the EPA's role is to set environmental management objectives rather than being directly involved in the development of strategies to achieve those objectives. Accordingly, the EPA has not reviewed this report and accordingly offers no comments in relation to it.

If you require any further information regarding this matter, please contact Genevieve Lorang on (02) 4908 6869.

Yours sincerely



MITCHELL BENNETT
Acting Manager - Regulatory Operations

Phone 131 555

TTY 133 677

Locked Bag 5022

4 Parramatta Square

info@epa.nsw.gov.au

Phone +61 2 9995 5555
(from outside NSW)

ABN 43 692 285 758

Parramatta
NSW 2124 Australia

12 Darcy St, Parramatta
NSW 2150 Australia

www.epa.nsw.gov.au



Ms Belinda Pignone
Graduate Environmental Planning Coordinator
Hanson Construction Materials Pty Ltd
Level 18
2-12 Macquarie Street
Parramatta, NSW, 2150

16/06/2021

Dear Ms Pignone,

**Brandy Hill Quarry Expansion Project (SSD 5899)
Noise Management Plan - request for additional information**

We require additional information relating to the Noise Management Plan submitted under the conditions of consent for the Brandy Hill Quarry Expansion Project.

Please submit a revised document that addresses the requirements under Attachment A.

Please provide the information or notify us that you will not provide the information by Tuesday 29 June 2021. If this timeframe is not achievable, please provide and commit to an alternative timeframe for providing this information.

If you have any questions, please contact Callum Firth at Callum.Firth@dpie.nsw.gov.au.

Yours sincerely



Matthew Spratt
Director
Resource Assessments (Coal & Quarries)

Document: Noise Management Plan
Revision: Revision 1 Dated 2 March 2021
Reviewed: Callum Firth on 16 June 2021

Noise Operational Noise Criteria, Condition B1, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response																																																					
<p>The Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 2 at any residence on privately-owned land.</p> <p>Table 2: Operation noise Criteria dB(A)</p> <table border="1" data-bbox="678 1518 981 2049"> <thead> <tr> <th rowspan="2">Noise Assessment Location</th> <th rowspan="2">Day LAeq (15 min)</th> <th rowspan="2">Evening LAeq (15 min)</th> <th colspan="2">5am to 6am</th> <th colspan="2">6 am to 7 am</th> </tr> <tr> <th>LAeq (15 min)</th> <th>LA1 (1 min)</th> <th>LAeq (15 min)</th> <th>LA1 (1 min)</th> </tr> </thead> <tbody> <tr> <td>R13.1</td> <td>36</td> <td>36</td> <td>35</td> <td>45</td> <td>36</td> <td>46</td> </tr> <tr> <td>R13.2</td> <td>36</td> <td>36</td> <td>35</td> <td>45</td> <td>36</td> <td>46</td> </tr> <tr> <td>R14</td> <td>38</td> <td>38</td> <td>35</td> <td>45</td> <td>36</td> <td>46</td> </tr> <tr> <td>R16</td> <td>37</td> <td>37</td> <td>35</td> <td>45</td> <td>36</td> <td>46</td> </tr> <tr> <td>R17</td> <td>37</td> <td>37</td> <td>35</td> <td>45</td> <td>37</td> <td>47</td> </tr> <tr> <td>Other Privately owned residences</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	Noise Assessment Location	Day LAeq (15 min)	Evening LAeq (15 min)	5am to 6am		6 am to 7 am		LAeq (15 min)	LA1 (1 min)	LAeq (15 min)	LA1 (1 min)	R13.1	36	36	35	45	36	46	R13.2	36	36	35	45	36	46	R14	38	38	35	45	36	46	R16	37	37	35	45	36	46	R17	37	37	35	45	37	47	Other Privately owned residences	35	35	35	45	35	45	Yes	The NMP provides these noise criteria in Section 3.1. These criteria underpin the triggers, design controls, corrective measures and exceedance management of the noise management system.		
Noise Assessment Location				Day LAeq (15 min)	Evening LAeq (15 min)	5am to 6am		6 am to 7 am																																																	
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Other Privately owned residences	35	35	35	45	35	45																																																			

Document: Noise Management Plan
Revision: Revision 1 Dated 2 March 2021
Reviewed: Callum Firth on 16 June 2021

Noise Operational Noise Criteria, Condition B2, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
Noise generated by the development must be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the <i>NSW Industrial Noise Policy</i> (EPA, 2000). Appendix 4 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.	Partial	Section 3.4.1 states that all attended noise monitoring will be conducted in accordance with the requirements of the Noise Policy for Industry (2017) and AS 1055:2018 Acoustics – Description and Measurement of Environmental Noise.	Commit to undertaking noise monitoring "consistent with the conditions of Appendix 4" or something similar.	See update to Section 3.4.1
Noise Operational Noise Criteria, Condition B3, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
The noise criteria in <i>Table 2</i> do not apply to a residence if the Applicant has an agreement with the owner/s of that residence or land to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.	Yes	This condition was noted and included in full in <i>Table 12</i> .		
Noise Operating Conditions, Condition B4, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
The Applicant must: a) take all reasonable steps to minimise all noise from construction and operational activities, including low frequency noise and other audible characteristics, as well as road noise associated with the development;	Yes	Section 3.2.1 displays the operating hours for quarry activities. Section 3.2.2 lists five design noise controls to minimise noise (maintained road network, amenity barrier, acoustic barrier along access road, commitment to same or lower sound power levels for future processing equipment).		

<p>b) take all reasonable steps to minimise the noise impacts of the development during noise-enhancing meteorological conditions; when the noise criteria in this consent do not apply (see Appendix 4);</p>	<p>Yes</p>	<p>Section 3.2.3 summarises the enclosure of processing equipment for sound minimisation. Section 3.2.4 lists five operational noise controls (strategic placement of stockpiles and equipment; equipment is maintained to adhere to noise standards, modified operations to reduce noise-related impacts). Section 3.2.5 lists road traffic noise controls. Section 3.2.4 states: <i>“Operations at exposed locations and under unfavourable weather conditions are modified, where necessary, to reduce potential noise-related impacts.”</i> Section 3.3.1 lists adverse weather conditions as a trigger for reactive management. Section 3.3.2.4 states: <i>“Should local weather predictions include the potential for adverse weather conditions, Hanson will limit or modify operational activities, based on weather predictions to minimise the potential of noise impacts and ensure compliance during these periods.”</i></p>		
<p>c) carry out regular attended noise monitoring (once a quarter unless otherwise agreed with the Planning Secretary) to determine whether the development is complying with the relevant conditions of this consent; and</p>	<p>Partial</p>	<p>Section 3.4.2 states: <i>“The purpose of the attended noise monitoring program is to determine compliance with the criteria identified in Condition B1 of the Development Consent and to monitor the environmental impacts of the operation.”</i></p>	<p>Please include evidence of the Planning Secretary’s agreement to this alteration of monitoring frequency, otherwise commit to</p>	<p>See update to Section 3.4.1</p>

Brandy Hill Quarry Expansion Project
Post Approval Review



Document: Noise Management Plan
Revision: Revision 1 Dated 2 March 2021
Reviewed: Callum Firth on 16 June 2021

<p>d) regularly assess the noise monitoring data and modify or stop operations on the site to ensure compliance with the relevant conditions of this consent.</p>	<p>Yes</p>	<p>It also states: <i>"Attended noise monitoring will be undertaken by an independent, suitably qualified acoustic consultant initially quarterly for the first two (2) years of operation as a minimum, following commencement of Stage 1."</i></p> <p>This implies that the quarterly attended noise monitoring will only take place for the first two years and is consistent with the Applicant's statement of commitments. However, the 'two year' aspect is not stated in the conditions of consent.</p>	<p>seeking the Planning Secretary's agreement before changing the monitoring frequency.</p>	
		<p>Section 3.3.2 covers the response and corrective actions. It includes an action plan/investigation. On completion of the investigation, the proponent will <i>"implement the corrective and preventative actions identified in the investigation report."</i></p> <p>Section 3.3.2.3 summarises the noise complaints and independent review of operations procedure.</p> <p>It is assumed that this data will be assessed quarterly unless a complaint or incident is recorded.</p>		

Document: Noise Management Plan
Revision: Revision 1 Dated 2 March 2021
Reviewed: Callum Firth on 16 June 2021

Noise Management Plan	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
<p>B5. The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:</p> <p>a) be prepared by a suitably qualified and experienced person/s;</p>	Yes	This was prepared by R.W. Corkery & Co. Pty. Ltd.		
<p>b) be prepared in consultation with the EPA;</p>	Yes	<p>Appendix 1 provides a copy of EPA's response to the request for consultation:</p> <p><i>"The EPA encourages the development and use of such plans to ensure that proponents have met their statutory obligations and designed environmental objectives.</i></p> <p><i>Being a regulatory authority, the EPA's role is to set environmental management objectives rather than being directly involved in the development of strategies to achieve those objectives. Accordingly, the EPA has not reviewed this report and accordingly offers no comments in relation to it."</i></p>		
<p>c) describe the measures to be implemented, including the enclosure of all fixed processing equipment and partial enclosure of the mobile crushers, to ensure:</p>	Yes	<p>Section 3.2.3 states that: <i>"The principal design control for potential noise impacts is the enclosure of all fixed crushing and screening equipment... Hanson has also committed to partially enclosing the mobile crushing equipment used for concrete recycling activities."</i></p>		

<p>(i) compliance with the noise criteria and operating conditions in this consent; and</p>	<p>Yes</p>	<p>Section 3.1 provides the noise criteria for the development. These criteria underpin the design/operational controls, triggers and corrective actions outlined for the noise management system and operating conditions.</p>		
<p>(ii) monitors noise at the nearest and/or most affected residences; and</p>	<p>Yes</p>	<p>Figure 2 displays the three noise monitoring locations to the west, south and east of the site. These locations provide monitoring coverage for the most affected residents in these directions.</p>		
<p>d) include a monitoring program that:</p>	<p>Yes</p>	<p>Section 3.4.</p>		
<p>(i) is capable of evaluating the performance of the development against the noise criteria;</p>	<p>Yes</p>	<p>Section 3.4.1 sets out the capabilities of the noise monitoring equipment, which must measure LAeq and LA1 levels. It also states that the noise monitoring will be conducted in accordance with the NPI and AS 1055:2018 Acoustics – Description and Measures of Environmental Noise. <i>“The maximum (L_{Amax}), average maximum (LA10) and the energy equivalent (LAeq) intrusive noise level from mining operations over a 15-minute measurement period will be recorded. In addition, the operator will quantify and characterise the overall levels of ambient noise (i.e. LAmax, LA1, LA10, LA50, LA90, LA99, LAmin and LAeq) over the 15-minute measurement interval. Where possible, monitoring will occur within a 24-hour period.”</i></p>		

(ii) monitors noise at the nearest and/or most affected residences; and	Yes	Figure 2 displays the three noise monitoring locations to the west, south and east of the site. These locations provide monitoring coverage for the most affected residents in these directions.		
(iii) includes a protocol for identifying any noise-related exceedance, incident or non-compliance and for notifying the Department and relevant stakeholders of these events.	Partial	Section 3.3.2 sets out the protocol for how noise-related exceedances are handled (as identified through noise monitoring, receipt of complaints or weather forecasts). Section 4 summarises incident and non-compliance notifications. This will be satisfied when conditions D7 and D8 are satisfied.		Noted and see response on these conditions and update to Section 3.3.2.1
Noise Management Plan, Condition B6, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
The Applicant must not commence Stage 1 of the development until the Noise Management Plan is approved by the Planning Secretary and the noise management measures are implemented.	Yes	Table 12 notes this condition.		
Noise Management Plan, Condition B7, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
The Applicant must implement the approved Noise Management Plan.	Partial	Table 12 notes this condition. This needs to be committed to explicitly.	Commit to implementing the approved Noise Management Plan.	See Section 1.1

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Management Plan Requirements, Condition D4, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
Management plans required under this consent must be prepared in accordance with relevant guidelines, and include: (a) a summary of relevant background or baseline data;	Yes	Table 3, 4 and 5 present the outcomes of compliance noise monitoring undertaken in 2018, 2019 and 2020.		
(b) details of: (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);	Yes	Section 2.7 includes the development consent, details of EPL 1879 and Hanson's Statement of Commitments.		
(ii) any relevant limits or performance measures and criteria; and	Yes	The noise criteria are included in Section 3.1.		
(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	Yes	The noise criteria are included in Section 3.1. Section 3.3.1 lists the triggers to instigate an investigation of exceedances.		
(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	Yes	Section 3 covers the noise management system which is designed to adaptively ensure compliance with the noise criteria.		
(d) a program to monitor and report on the:	Yes	Section 3.4.		
(i) impacts and environmental performance of the development; and	Yes	Section 3.4 details the monitoring protocols for attended noise monitoring, traffic noise monitoring and meteorological monitoring.		

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		Monitoring information is to be made public as per Section 3.6.		
(ii) effectiveness of the management measures set out pursuant to condition D4;	Partial	<p>Regarding pollution incidents: "Actions will be communicated internally through planning meetings and toolbox talks and outstanding actions will be monitored for their effectiveness upon completion."</p> <p>Section 4.3 states: "Opportunities for improvement of noise-related impacts will be discussed internally at toolbox meetings, in conjunction with all Quarry personnel. These opportunities would be presented to the Quarry Manager for consideration and any changes to operations as a result reported on as part of the Annual Review or, where relevant, reflected in an updated Plan."</p> <p>Section 4.3 provides a general avenue for communicating improvement. Are there any programs for assessing/reviewing the ongoing effectiveness of management measures?</p>		Section 4.3 has been updated to indicate that compliance and related outcomes (noise monitoring complaints) would be used as triggers and guides for evaluation and indicate the effectiveness of management.
(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	Yes	Section 3.3.2 summarises the corrective actions for noise monitoring exceedances and how complaints are handled and responded to.		

<p>(f) a program to investigate and implement ways to improve the environmental performance of the development over time;</p>	<p>Partial</p>	<p>Section 4.3 provides a general avenue for communicating improvement.</p>	<p>Provide some more discussion in 4.3 around what inputs or phenomena may inform these toolbox talks.</p>	<p>Section 4.3 has been updated and now clearly identifies the pathways to improvement – something identified by staff in their day-to-day roles or incidents. No further change to this text is considered warranted as the sources of prompts for toolbox talks are many and varied.</p>
<p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> (i) incident, non-compliance or exceedance of the impact assessment criteria or performance criteria; (ii) complaint; or 	<p>Yes</p>	<p>Section summarises the incident management protocols which include incident and non-compliance reporting and reporting, and management of pollution incidents.</p>		
	<p>Yes</p>	<p>Section 3.3.2.2 summarises how noise complaints are handled and responded to.</p>		

	Yes	Section 3.3.2.3 discusses the protocol for noise complaints related to an independent review of operations. Section 3.3.2.1 summarises the protocol for responding to noise monitoring exceedances. Section 3.3.2.3 commits to the commissioning of an independent review of operations upon direction by DPIE following a landowner who believes an air quality exceedance has occurred. This section commits to comply with any written requests made by DPIE to implement any findings of the review.		
Revisions of Strategies, Plans and Programs, Condition D5, Schedule 2 Within three months of: (a) the submission of an incident report under condition D7; (b) the submission of an Annual Review under condition D9; (c) the submission of an Independent Environmental Audit under condition D11; (d) the approval of any modification of the conditions of this consent;	Sufficient (Yes/No/Partial) Yes	Document reference and comment Section 4.4 commits to this.	Action Required	Company Response
(h) a protocol for periodic review of the plan.	Yes	Section 4.4 commits to reviewing the plan in line with condition D5.		

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<p>(e) notification of a change in development stage under condition A15; or</p> <p>(f) the issue of a direction of the Planning Secretary under condition A2(b) which requires a review, the suitability of existing strategies, plans and programs required under this consent must be reviewed by the Applicant.</p> <p>Revisions of Strategies, Plans and Programs, Condition D6, Schedule 2</p> <p>If necessary, to either improve the environmental performance of the development; cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary and submitted to the Planning Secretary for approval within six weeks of the review.</p>	<p>Yes</p>	<p>Section 4.4 commits to this.</p>		

Incident Notification, Condition D7, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing through the Department's Major Projects website and identify the development (including the development application number and name) and set out the location and nature of the incident.	Partial	Section 4.1.1 lists this condition in full. Section 4.1.4 is titled 'Incident Notification and Reporting', however seems to detail the response to a non-compliance. If this is referring to incidents, DPIE and EPA must be notified immediately, and not at "the first practical opportunity". It is not clear what is being described in this section (incident or non-compliance), if it's both, please commit to both respective notification times.	If Section 4.1.4 is referring to incident notification as titled, please remove "at the first practical opportunity" OR If it is referring to non-compliance notification, there are 7 days to notify DPIE and EPA – please state this.	This wording has been removed
Non-Compliance Notification, Condition D8, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing to through the Department's Major Projects website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	Partial	Section 4.1.4 and 3.3.2.1 state that non-compliances (exceedances) will be made aware to DPIE and EPA within 7 days. The rest of the information as detailed in this condition has not been committed to e.g. set out the condition of this consent that the development is non-compliant with etc.	Provide a commitment to include all the relevant identifying information in the notification.	See update to Section 3.3.2.1. No change to Section 4.1.4 as this refers to the procedures in Section 3.3.2 and the information does not require repeating.

Annual Review, Condition D9, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
<p>By the end of March in each year after the commencement of development, or other timeframe agreed by the Planning Secretary, a report must be submitted to the Department reviewing the environmental performance of the development, to the satisfaction of the Planning Secretary. This review must:</p> <p>(a) describe the development (including any rehabilitation) that was carried out in the previous calendar, and the development that is proposed to be carried out over the current calendar year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, including a comparison of these results against the:</p> <ul style="list-style-type: none"> (i) relevant statutory requirements, limits or performance measures/criteria; (ii) requirements of any plan or program required under this consent; (iii) monitoring results of previous years; and (iv) relevant predictions in the documents listed condition A2(c). 	No	<p>As this plan should be able to be read as a standalone document, there should be a section that succinctly summarises the annual review and what will be included, as relevant to noise.</p>	<p>Include a new subsection which summarises the annual review and what will be included (from (a) – (g)) as relevant to noise.</p> <p>Include a commitment to submit copies of the annual review to Council and made available to the CCC and any interested person upon request.</p>	<p>Condition included in Section 2.8 and Table 13</p> <p>See new Section 4.4</p>

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<p>(c) identify any non-compliance or incident which occurred in the previous calendar year, and describe what actions were (or are being) taken to rectify the non-compliance and avoid reoccurrence; (d) evaluate and report on: (i) the effectiveness of the noise and air quality management systems; and (ii) compliance with the performance measures, criteria and operating conditions in this consent; (e) identify any trends in the monitoring data over the life of the development; (f) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and (g) describe what measures will be implemented over the next calendar year to improve the environmental performance of the development.</p> <p>D10. Copies of the Annual Review must be submitted to Council and made available to the CCC and any interested person upon request.</p>	<p>Sufficient (Yes/No/Partial)</p>	<p>Document reference and comment</p>	<p>Action Required</p>	<p>Company Response</p>

<p>Within one year of the commencement any development under this consent, and every three years after, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. The audit must:</p> <ul style="list-style-type: none"> (a) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Planning Secretary; (b) be carried out in consultation with the relevant agencies and the CCC; (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent, water licences and mining leases for the development (including any assessment, strategy, plan or program required under these approvals); (d) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals and this consent; (e) recommend appropriate measures or actions to improve the environmental performance of the development and any assessment, strategy, plan or program 	<p>No</p>	<p>As this plan should be able to be read as a standalone document, there should be a section that succinctly summarises the independent environmental audit process.</p>	<p>Include summary of this process as relevant to noise.</p>	<p>Condition included in Section 2.8 and Table 13 See new Section 4.5</p>
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<p>(f) required under the abovementioned approvals and this consent; and be conducted and reported to the satisfaction of the Planning Secretary.</p>				
Independent Environmental Audit, Condition D12, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
<p>Within three months of commencing an Independent Environmental Audit, or within another timeframe agreed by the Planning Secretary, the Applicant must submit a copy of the audit report to the Planning Secretary, and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The recommendations must be implemented to the satisfaction of the Planning Secretary.</p>	<p>No</p>	<p>As above</p>	<p>As above</p>	<p>See new Section 4.5</p>
Monitoring and Environmental Audits, Condition D13, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response

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	Noted				Company Response
Monitoring and Environmental Audits, Condition D14, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required		
<p>Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance report and independent audit.</p> <p>For the purposes of this condition, as set out in the EP&A Act, "monitoring" is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an "environmental audit" is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.</p>	Noted				
<p>Noise, blast and/or air quality monitoring under this consent may be undertaken at suitable representative monitoring locations instead of at privately-owned residences or other locations listed in Part B, providing that these</p>	Noted				

Access to Information, Condition D15, Schedule 2	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
<p>representative monitoring locations are set out in the respective management plan/s.</p> <p>Before the commencement of construction until the completion of all rehabilitation required under this consent, the Applicant must:</p> <p>(a) make the following information and documents (as they are obtained, approved or as otherwise stipulated within the conditions of this consent) publicly available on its website:</p> <ul style="list-style-type: none"> (i) the document/s listed in condition A2(o); (ii) all current statutory approvals for the development; (iii) all approved strategies, plans and programs required under the conditions of this consent; (iv) minutes of CCC meetings; (v) regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent; (vi) a comprehensive summary of the monitoring results of the development, reported in 	<p>Partial</p>	<p>Section 1.1 states that NIMP will be made public on the website.</p> <p>Section 3.3.2.1 state that a copy of an exceedance investigation report will be made public.</p> <p>Section 3.3.2.3 states that the complaints register will be made public. It also states that the outcomes of any independent review will be published on the website.</p> <p>Section 3.6 lists what will be made public:</p> <ul style="list-style-type: none"> • "A copy of this Plan and any assessment document relating to noise. • A copy of all noise monitoring reports of all noise monitoring results within 30 days of the date of monitoring. • The Annual Review for the period 1 January to 31 December of each year, 	<p>Please commit to keeping all of this information up to date.</p>	<p>Comment added to Section 3.6</p>

<p>accordance with the specifications in any conditions of this consent, or any approved plans and programs; a summary of the current stage and progress of the development; contact details to enquire about the development or to make a complaint; a complaints register, updated monthly;</p> <p>(x) the Annual Reviews of the development;</p> <p>(xi) audit reports prepared as part of any Independent Environmental Audit of the development and the Applicant's response to the recommendations in any audit report;</p> <p>(xii) any other matter required by the Planning Secretary; and</p> <p>(b) keep such information up to date, to the satisfaction of the Planning Secretary.</p>		<p><i>will be published within fourteen (14) days of acceptance by DPIE.</i></p> <ul style="list-style-type: none"> <i>All noise exceedance investigation reports will be made publicly available on the Quarry website within fourteen days of being finalised and accepted by DPIE.</i> <i>Incident investigation reports will be made publicly available within fourteen (14) days of being provided to the relevant regulator."</i> 		
<p>Noise Compliance Assessment, Condition 1, Appendix 4</p> <p>Applicable Meteorological Conditions</p> <p>The noise criteria in Table 2 of the conditions are to apply under all meteorological conditions except the following:</p> <p>(a) where 3°C/100 metres (m) lapse rates have been assessed, then:</p>	<p>Sufficient (Yes/No/Partial)</p> <p>No</p>	<p>Document reference and comment</p> <p>Some of this is covered in the EPL conditions, however this appendix should be committed to broadly.</p>	<p>Action Required</p> <p>Commit to undertaking noise monitoring "consistent with the conditions of</p>	<p>Company Response</p> <p>See updated Section 3.4.1</p>

<p>(i) wind speeds greater than 3 metres/second (m/s) measured at 10m above ground level; (ii) temperature inversion conditions between 1.5°C and 3°C/100m and wind speeds greater than 2m/s measured at 10m above ground level; or (iii) temperature inversion conditions greater than 3°C/100m. (b) where Pasquill Stability Classes have been assessed, then: (i) wind speeds greater than 3m/s at 10m above ground level; (ii) stability category F temperature inversion conditions and wind speeds greater than 2m/s at 10m above ground level; or (iii) stability category G temperature inversion conditions.</p>			Appendix 4" or something similar.	
<p>Noise Compliance Assessment, Condition 2, Appendix 4</p>	<p>Sufficient (Yes/No/Partial)</p> <p>No</p>	<p>Document reference and comment</p> <p>As above</p>	<p>Action Required</p> <p>As above</p>	<p>Company Response</p> <p>See updated Section 3.4.1</p>
<p>Determination of Meteorological Conditions Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station required under B28.</p>				

Noise Compliance Assessment, Condition 3, Appendix 4	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
Compliance Monitoring A noise compliance assessment must be undertaken within two months of commencement of quarrying operations. The assessment must be conducted by a suitably qualified and experienced acoustical practitioner and must assess compliance with noise criteria presented above. A report must be provided to the Department and EPA within 1 month of the assessment.	No	As above	As above	See updated Section 3.4.1 and Section 3.6
Noise Compliance Assessment, Condition 3, Appendix 4	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response

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<p>Unless otherwise agreed by the Planning Secretary, attended compliance monitoring must be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Industrial Noise Policy (EPA, 2000), in particular the requirements relating to:</p> <ul style="list-style-type: none"> (a) monitoring locations for the collection of representative noise data; (b) meteorological conditions during which collection of noise data is not appropriate; (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and (d) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration, (e) modifying factors apart from adjustments for duration, with the exception of applying appropriate modifying factors for low frequency noise during compliance testing. This should be undertaken in accordance with Fact Sheet C of the NSW Noise Policy for Industry (EPA, 2017). 	<p>No</p>	<p>As above</p>	<p>As above</p>	<p>See updated Section 3.4.1</p>
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Statement of Commitments – Noise Management	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
Ensure stockpiles and ancillary equipment are positioned to mitigate potential noise impacts.	Yes	Section 3.2.4 commits to this.		
Maintain all equipment located on site to adhere to existing noise standards and ensure that noise generated by equipment is not exacerbated.	Yes	Section 3.2.4 commits to this.		
Modify operations at exposed locations and under unfavourable weather conditions, where necessary and without compromising safety, to reduce potential noise-related impacts.	Yes	Section 3.2.4 commits to this.		
Maintain the internal road network to reduce body noise from empty trucks.	Yes	Section 3.2.4 commits to this.		
Construct an acoustic barrier along the Quarry Access Road to mitigate noise generated by heavy vehicles on the Quarry Access Road.	Yes	Section 3.2.2 commits to this.		
Implement an operational noise monitoring program, in consultation with DPIE, involving quarterly monitoring for a two-year period at the locations to the south, east and west of the Quarry. After an initial two years of monitoring, the frequency of monitoring would be reduced to bi-annual, assuming that there are no identifiable seasonal trends in results.	Noted			
Undertake bi-annual monitoring of road traffic noise on Brandy Hill Drive. The location of monitoring will be established in the Noise Management Plan.	Yes	Section 3.4.2 commits to this.		

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Undertake an annual survey of sound power levels for all mobile equipment to demonstrate equipment is not exceeding noted levels within the Updated Noise Impact Assessment (Appendix 5).	Partial	This commitment cannot be found in full.	Please advise where this commitment is found in the NMP aside from 2.7.3. Otherwise commit to this annual survey.	New Section 2.5 and Section 3.4.4 have been added to the Plan
Prepare and implement a site Noise and Blast Management Plan and/or monitoring program for the life of the Project. Regularly review and update the plan in accordance with the requirements of the Project Approval.	Yes	This plan + Blast MP.		
General Comments				
One part of Section 1.5 is highlighted.				
			Action Required	Company Response
			Ensure this is unhighlighted and finalised when sent back.	Noted and fixed

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