



Strength. Performance. Passion.

Teven Quarry Noise Management Plan

Holcim Australia
April 2021 Update

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1. Introduction

1.1 Background

Holcim (Australia) Pty Ltd (Holcim Australia) owns and operates an existing hard rock quarry located at Stokers Lane, Teven, New South Wales (NSW) in the Ballina Local Government Area (LGA). The site is approximately eight kilometres (km) north-west of Ballina town centre (**Figure 1**).

In 2014, Holcim sought a Development Consent under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) for an extension of the approved quarry life for an additional 30 years to 2045. The Teven Quarry Development Consent (SSD 6422) was granted on 15 July 2015 by the NSW Minister for Planning and Infrastructure.

The Development Consent (SSD 6422) allows for continued operations of the existing Teven Quarry at an increased annual production volume, within the previously approved extraction area (**Figure 2**).

Under the Project Approval, Holcim Australia is required by the NSW Department of Planning Industry and Environment (DPIE) to prepare a Noise Management Plan (NMP) in consultation with the NSW Environment Protection Authority (EPA) and to the satisfaction of the Secretary.

1.2 Project Description

The Teven Quarry Development Consent (SSD 6422) provides for the following listed in **Table 1**.

Table 1 Teven Quarry Development Consent (SSD 6422)

Project Component	Previously Approved (2014)	Currently Approved (2015-2045)
Quarry life	30 years from date of approval (15 July 2015), ie to 15 July 2045	
Limits of production	500,000 tonnes per annum (tpa)	
Quarry footprint	Shown on Figure 2	
Overburden management	Shown on Figure 2	
Hours of operation	<p>Blasting: 10:00 am-3:00 pm Monday–Friday, at no time on Sundays or public holidays</p> <p>All other activities: 7:00 am-4:00 pm Monday–Friday 7:00 am-4:00 pm Saturday At no time on Sundays or public holidays</p> <p>Extended hours for product loading and dispatch: 7:00 am-10:00 pm Monday to Friday 7:00 am–4:00 pm Saturday At no time on Sundays or public holidays</p>	
Transport	Road transport at approved production level	
Employment	11 full time equivalent positions	
Infrastructure	Fixed primary, secondary and tertiary plants with the addition of a mobile crushing and screening plant, and a mobile pug mill	
Site access	Off Stokers Lane	
Concrete recycling for re-use	Recycling of up to 10,000 tpa of clean surplus concrete material on site using existing and proposed processing infrastructure for re-use as product	

1.3 Purpose and Scope

The purpose of this NMP is to describe the noise management strategies, procedures, controls and the monitoring programs that are to be implemented in accordance with the Teven Quarry Project Environmental Impact Statement (EIS) (EIS, Umwelt 2014) and the Development Consent (SSD 6422). The NMP is stipulated as a key requirement under the Development Consent (SSD 6422) and is designed to be prepared in consultation with the EPA and to the satisfaction of the Secretary.

The NMP outlines the control measures to be implemented as part of the Teven Quarry Project to minimise the potential impacts on noise amenity on the local community.

1.4 Objectives

The objectives of this NMP include the following:

- Establish a noise monitoring system to assess the noise impact on surrounding sensitive receivers and performance against the Development Consent (SSD 6422) noise criteria;
- Provide a mechanism to assess monitoring results against Development Consent (SSD 6422) noise criteria to evaluate compliance;
- Detail the requirement for reporting noise criteria exceedances to the relevant stakeholders;
- Detail the controls to be implemented to minimise noise emissions from the site;
- Allow adaptive management of the quarrying operation based on predicted meteorological conditions;
- Address the relevant conditions of the Development Consent (SSD 6422);
- Manage noise related community complaints in a timely and effective manner; and
- Detail the independent review process to be followed if Teven Quarry receives a written request by a landowner(s) for an independent review of noise impacts.

2. Stakeholder Consultation

2.1 Pre 2020 Consultation

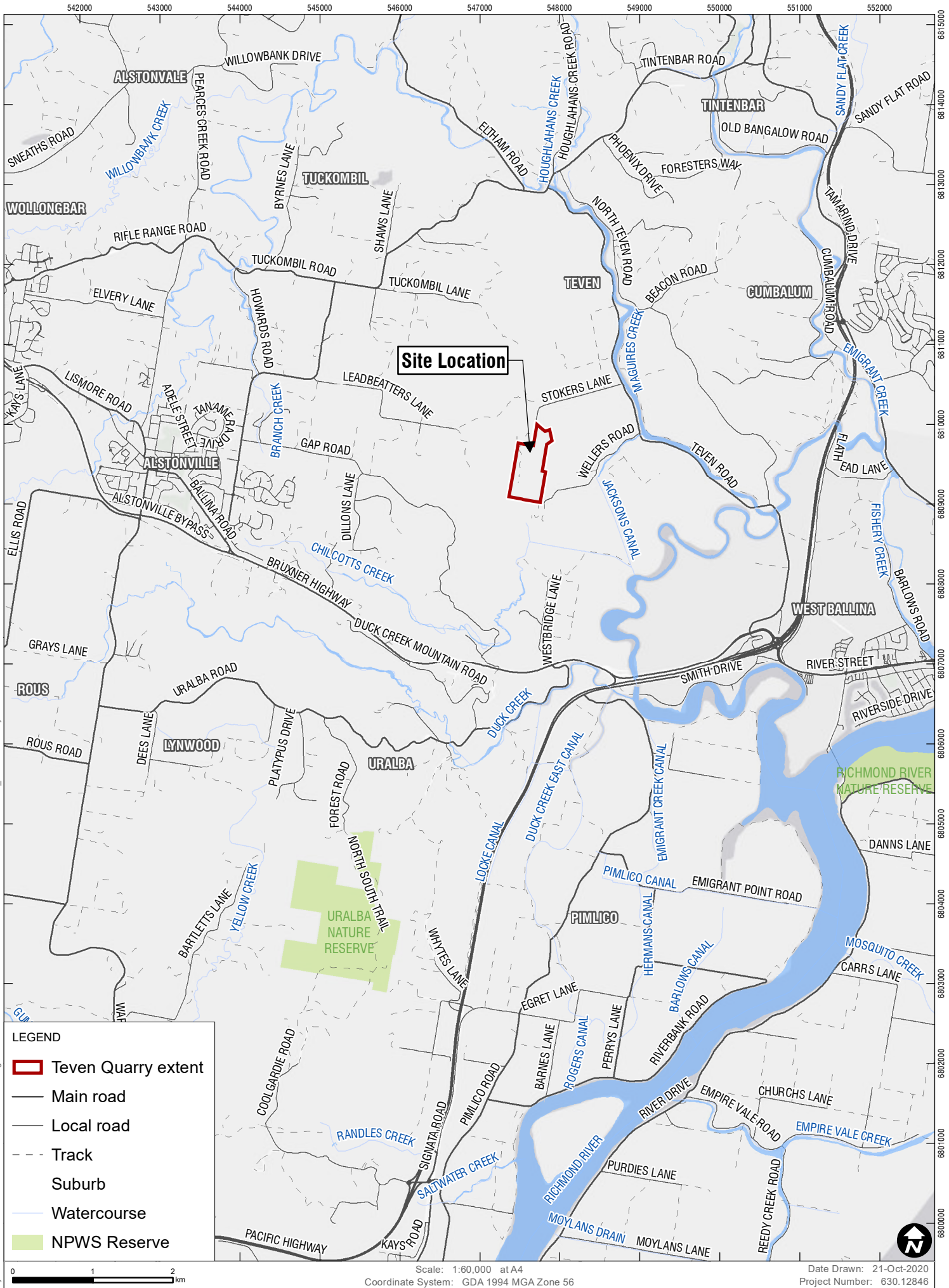
A letter was sent to the NSW Environment Protection Authority (EPA) on 16 October 2015 requesting agency input during the development of the draft NMP and review of the final draft document. Holcim Australia received no response during this initial consultation and was unable to speak with the EPA.

Following the initial communication, this document was sent to the EPA on 17 November 2015 as per Condition 6 (a) Schedule 3 of the Development Consent (SSD 6422). Holcim Australia has received no feedback from the EPA since submitting for review and considers that the EPA had ample time to sufficiently review and comment on document.

2.2 2020 Consultation

A copy of the 2020 updated management plan was provided to DPIE in August 2020. Holcim received comments from DPIE on 7 October 2020 and updated this document. Holcim resubmitted the document to DPIE as required by the Development Consent (SSD 6422) on the 15 April 2021. Holcim received comments from DPIE on the 20 April 2021. Holcim will resubmit this document as required by SSD 6422. See **Appendix A** for consultation.

DPIE requested EPA be consulted in regard to the October 2020 revision of this management plan. A copy of the revision was sent to EPA on 2 February 2021. EPA responded on 3 February 2021 stating that the management plan was satisfactory, and all monitoring points appear appropriate. See **Appendix A** for consultation.

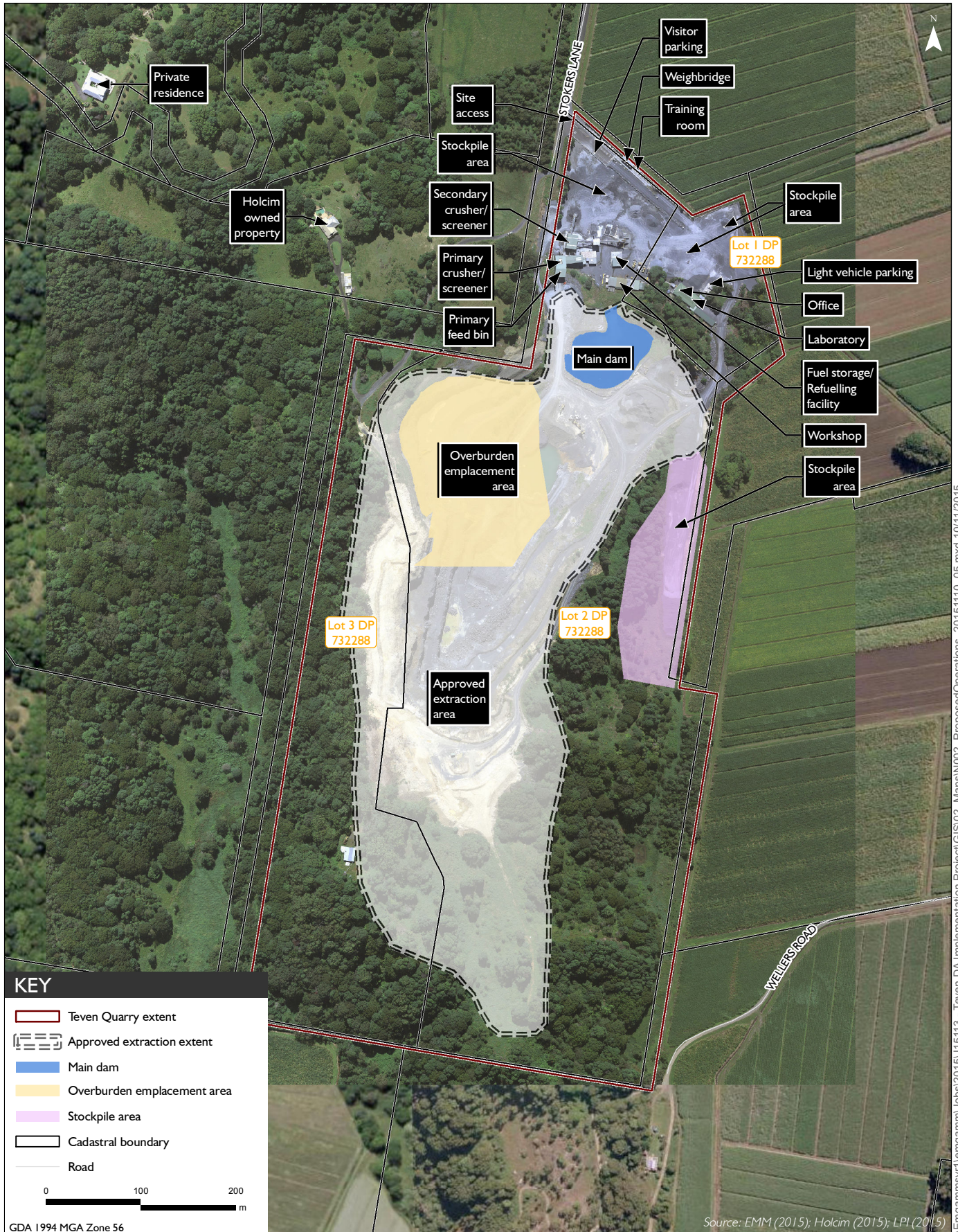


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Site Locality

Figure 1



Approved operations
Teven Quarry
Noise Management Plan

Figure 2

3. Statutory Requirements

3.1 Development Consent

The requirements from the Development Consent (SSD 6422) relating to noise, and where these requirements are addressed within this document, are provided in **Table 2**.

Table 2 Development Consent Conditions

Development Consent Conditions	Section Addressed									
<p>Schedule 3 Condition 4 - Noise Impact Assessment Criteria</p> <p>The Applicant shall ensure that the noise generated by the development does not exceed the criteria in [Table 2 of the SSD 6422 Schedule 3 Condition 4] below at any residence on privately-owned land.</p> <p><i>Table 2: Noise criteria dB(A)</i></p> <table border="1" data-bbox="233 730 1161 871"> <thead> <tr> <th data-bbox="233 730 587 786">Receiver</th> <th data-bbox="587 730 884 786">Day dB(A) (L_{Aeq}(15 min))</th> <th data-bbox="884 730 1161 786">Evening dB(A) (L_{Aeq}(15 min))</th> </tr> </thead> <tbody> <tr> <td data-bbox="233 786 587 826">R3, R4, R13, R15, R16, R17, R18, R20</td> <td data-bbox="587 786 884 826">38</td> <td data-bbox="884 786 1161 826">35</td> </tr> <tr> <td data-bbox="233 826 587 871">All other residences</td> <td data-bbox="587 826 884 871">37</td> <td data-bbox="884 826 1161 871">35</td> </tr> </tbody> </table> <p><i>Note: Receiver locations are shown on the figure in Appendix 4.</i></p> <p>Noise generated by the development is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy. Appendix 5 sets out the meteorological condition under which these criteria apply and the requirements for evaluating compliance with these criteria.</p> <p>However, the noise criteria in [Table 2 of the SSD 6422 Schedule 3 Condition 4] do not apply if the Applicant has an agreement with the relevant landowner to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.</p> <p>In the event that the studio outbuilding, certified as Complying Development under the provisions of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 by Tecton Building Services on 16 April 2015, is constructed on Lot 3 DP 703181, the Applicant shall ensure that the noise generated by the development does not exceed a criterion of 55 dB(A) L_{eq} (period) when measured external to the façade of the outbuilding, when it is in use.</p>	Receiver	Day dB(A) (L _{Aeq} (15 min))	Evening dB(A) (L _{Aeq} (15 min))	R3, R4, R13, R15, R16, R17, R18, R20	38	35	All other residences	37	35	Section 6
Receiver	Day dB(A) (L _{Aeq} (15 min))	Evening dB(A) (L _{Aeq} (15 min))								
R3, R4, R13, R15, R16, R17, R18, R20	38	35								
All other residences	37	35								
<p>Schedule 3 Condition 5 - Operating Conditions</p> <p>The Applicant shall:</p> <p>a) implement best practice management to minimise the operational and road transportation noise of the development;</p>	Sections 7									
<p>b) minimise the noise impacts of the development during meteorological conditions when the noise criteria in this consent do not apply (see Appendix 5 of SSD 6422);</p>	Section 7									
<p>c) carry out noise monitoring (at least every 3 months) to determine whether the development is complying with the relevant conditions of this consent; and</p>	Section 8									
<p>d) regularly assess noise monitoring data and modify and/or stop operations on site to ensure compliance with the relevant conditions of this consent to the satisfaction of the Secretary.</p> <p><i>Note: Required frequency of noise monitoring may be reduced if approved by the Secretary.</i></p>	Section 8									

Development Consent Conditions	Section Addressed
<p>Schedule 3 Condition 6 - Noise Management Plan</p> <p>The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:</p>	Entire Plan
<p>e) be prepared in consultation with EPA;</p>	Section 2
<p>f) be submitted to the Secretary within 6 months of the date of this consent, unless otherwise agreed by the Secretary;</p>	Entire Plan
<p>g) describe the measures that would be implemented to ensure:</p> <ul style="list-style-type: none"> • compliance with the noise criteria in this consent; • best practice management is being employed; and • the noise impacts of the development are minimised during meteorological conditions under which the noise criteria in this consent do not apply. 	Sections 7
<p>h) describe the proposed noise management system; and</p>	Section 7
<p>i) include a monitoring program to be implemented to measure noise from the development against the noise criteria in Table 2, and which evaluates and reports on the effectiveness of the noise management system on site.</p>	Section 8
<p>Schedule 5 Condition 2 - Management Plan Requirements</p>	
<p>The Applicant shall ensure that the Management Plans required under this consent are prepared in accordance with any relevant guidelines, and include:</p> <p>a) detailed baseline data;</p>	Section 4
<p>b) a description of:</p> <ul style="list-style-type: none"> ▪ the relevant statutory requirements (including any relevant approval, licence or lease conditions); ▪ any relevant limits or performance measures/criteria; and ▪ 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; 	Section 3; Section 6; and Section 7
<p>c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p>	Section 7
<p>d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> ▪ impacts and environmental performance of the development; and ▪ effectiveness of any management measures (see (c) above); 	Section 8 and 9
<p>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;</p>	Section 10
<p>f) a program to investigate and implement ways to improve the environmental performance of the development over time;</p>	Section 11
<p>g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> ▪ incidents; ▪ complaints; ▪ non-compliances with statutory requirements; and ▪ exceedances of the impact assessment criteria and/or performance criteria; and 	Section 9

Development Consent Conditions	Section Addressed
h) a protocol for periodic review of the plan.	Section 11

3.2 Environment Protection Licence

There are a series of EPL 3293 conditions relating to noise management including:

- L4.1 - Noise from the premises is to be measured at 168 Wellers Road, Teven, (Receiver no. 2 in the Teven Quarry Project Development Consent of 15 July 2015) to determine compliance with this condition.
Note: Field meteorological indicators for non-significant weather conditions are described in the Noise Policy for Industry (2017), Chapter 5 and Fact Sheet D in relation to wind and temperature inversions.
- L4.2 - Noise generated at the premises that is measured at each noise monitoring point established under this licence must not exceed the noise levels specified in Column 4 of the table below for that point during the corresponding time periods specified in Column 1 when measured using the corresponding measurement parameters listed in Column 2.

POINT 2			
Time period	Measurement parameter	Measurement frequency	Noise level dB(A)
Day	Day-LAeq (15 minute)	Yearly	37
Evening	Evening-LAeq(15 minute) (6pm-10pm Mon.-Sun.)	Yearly	35

- L4.3 - The noise emission limits identified in this licence apply under all meteorological conditions except for the following:
 - Wind speeds greater than 3 metres/second at 10 metres above ground level; or
 - Temperature inversion conditions up to 3°C/100m and wind speeds greater than 2 metres/second at 10 metres above ground level; or
 - Temperature inversion conditions greater than 3°C/100m .
- M8.1 To assess compliance with the noise limits specified with in this licence, the licensee must undertake operator attended noise monitoring at each specified noise monitoring point in accordance with the table below.

POINT 2			
Assessment period	Minimum frequency in a reporting period	Minimum duration within assessment period	Minimum number of assessment period
Day	Yearly	1.5 hours	1 operation day

3.3 EIS Statement of Commitments

The noise-related Statement of Commitments relevant to the NMP and where they are addressed in this document are detailed in **Table 3**.

Table 3 Statement of Noise Related Commitments

Commitment	Section Addressed
15. Holcim (Australia) will implement the following noise controls as part of the Project: <ul style="list-style-type: none"> • The maintenance of product stockpiles in strategic locations, where practicable, along the northern edge of the Project site shielding product trucks and product loading equipment; 	Sections 7
<ul style="list-style-type: none"> • The use of broad band reversing alarms instead of beeper style alarms on all mobile equipment; 	Section 7
<ul style="list-style-type: none"> • The management of mobile machines during adverse weather conditions when wind conditions or inversion conditions enhance the noise propagation towards sensitive receiver locations; 	Section 7
<ul style="list-style-type: none"> • Regular inspection and maintenance of noise attenuation systems; and 	Section 7
<ul style="list-style-type: none"> • The implementation of a process for periodic review of noise performance of equipment. 	Section 7
16. Within six months of the date of consent, Holcim Australia will prepare and implement a Noise Management Plan for the Project. The Noise Management Plan will be integrated into the site Environmental Management Plan (refer to commitment 8).	Entire Plan
17. Holcim Australia will undertake a noise monitoring program on an annual basis (or as otherwise outlined in the Noise Management Plan) including: <ul style="list-style-type: none"> • Attended noise monitoring to measure ambient noise levels in the surrounding region and determination of the quarry's contribution to measured noise levels; • Comparison of the attended noise monitoring results with relevant limits and predicted noise levels from the Project; and • Assessment of performance of noise control measures and • Recommendations for additional measures if required. 	Section 8
18. Blast monitoring will continue to be undertaken for each blasting event.	Section 5 and the Blast Management Plan
19. A summary of the noise monitoring and blasting monitoring results will be reported in the Annual Review for the operation.	Section 9

3.4 2019 Independent Environmental Audit – Updates

An Independent Environmental Audit (IEA) was completed for Teven Quarry by GHD, with the report dated April 2020. There were several recommendations from that report relevant to this management plan.

Table 4 Independent Environmental Audit – Required Updates

Recommendation	Comment
<p>1. Confirm in the Quarterly Noise Monitoring Assessments, the noise criteria at all receivers in Table 2 were achieved.</p> <p>2. And/or update the Noise Management Plan to confirm the noise monitoring locations are representative of all the receivers in Table 2.</p> <p><u>Independent Environmental Audit Observation:</u> The Annual Review summarises the noise monitoring results from Muller Acoustic Consultants which indicate compliance with the relevant criteria. While the monitoring locations appear to surround the quarry, providing a reasonable indication of the noise levels, there is nothing linking the monitoring locations with all the receivers in Table 2 of the consent. Table 6-1 of the Noise Management Plan justifies the noise monitoring locations in relation to the receivers but there is no mention of R13, R15, R16, R17, R18 or R20. The monitoring locations in the Quarterly Noise Monitoring Assessment are similar but not the same as those identified in the Noise Management Plan but there is no justification or link provided to all the receivers in Table 2. The Quarterly Noise Monitoring Assessment concludes that the noise criteria was achieved at all assessed residential receivers, however, because not all receivers mentioned in Table 2 were assessed, it is difficult to confirm if noise levels compiled at all these receivers. It does appear the monitoring is comprehensive, with the exception of R13, with an observed linkage between the results and the receivers in Table 2.</p>	<p>Muller Acoustic Consultants note that the noise monitoring location align reasonably well with those in the NMP, noting that the receivers R13-18 and R20 are more distant than measurement location N5 and hence, compliance is implied at these if levels are compliant at N5.</p> <p>A detailed noise impact assessment was in 2014 as part of the site's Environmental Impact Statement (EIS). As part of the EIS detailed noise impact assessment, noise loggers were placed at three locations considered to be representative of the residential receivers surrounding the Project Area and nearest. See Figure 4 for baseline noise monitoring locations and sensitive receivers</p> <p>As per the recommendations of the Independent Environmental Audit the noise monitoring plan's noise monitoring locations have been reviewed and updated to the three noise monitoring locations from the EIS detailed noise assessment. As per the findings of the EIS, these three locations are considered to be representative of the residential receivers surrounding the Project Area and nearest potentially affected residential receivers. See Figure 5 for noise receivers and monitoring locations.</p>
<p>Update the management plans required under the consent to include a contingency plan to manage unpredicted impacts.</p>	<p>See Section 7, 9.4 and 10</p>
<p>Review the strategies, plans and programs following the annual review, incident report, audit report or modification and maintain evidence of the reviews.</p>	<p>Section 11</p>
<p>Notify the Secretary and any other relevant agencies of any incident, within 7 days of the date of the incident, in accordance with Condition 7, Schedule 5.</p>	<p>Section 9</p>

4. Baseline Data

4.1 Existing Noise Monitoring

The existing background noise levels of the Teven Quarry area and surrounds were established using continuous noise loggers over a period of 18 days in 2014, as part of noise assessment works undertaken for the Teven Quarry Project EIS (EIS, Umwelt 2014). In order to establish background noise levels, data loggers were installed across the area within approximately 1.5 kilometres (km) of the Quarry extent.

The loggers were placed at three locations considered to be representative of the residential receivers surrounding the Project Area. The background noise monitoring locations are shown on **Figure 3** as are the locations of the nearest potentially affected residential receivers in relation to the existing residential receivers.

The results of the monitoring program are summarised in **Table 5**. The results of the background testing have been used to determine the rating background level (RBLs) and the mean Leq, period (where 'period' is equal to the day, evening or night) noise level in the area surrounding the Quarry extent. The RBLs have been calculated for each receiver in accordance with the Noise Policy for Industry (2017).

Table 5 Monitoring Results, RBLs and Mean Leq, Period dB(A)

Monitoring Location	Time Period ¹	RBL ²	Mean Leq ³ , Period
N1-217 Leadbetters Lane, Teven	Day	32	45
	Evening	30	36
	Night	30 (28)	36
N2-433 Teven Road, Teven	Day	32	56
	Evening	30	48
	Night	30 (28)	43
N3-168 Wellers Road, Teven	Day	36	41
	Evening	38	44
	Night	37	40

Notes:

1. Monday to Saturday is 7:00 am to 6:00 pm, Evening 6:00 pm to 10:00 pm and Night 10:00 pm to 7:00 am; on Sundays and Public Holidays, Day is 8:00 am to 6:00 pm, Evening 6:00 pm to 10:00 pm and Night 10:00 pm to 8:00 am.
2. Where the RBL is less than 30 dB(A) the RBL is set at 30 dB(A). The values in the parentheses are the actual RBL determined from the monitoring data.
3. The A-weighted energy average from a noise source.

The noise levels presented in **Table 5** represent the ambient acoustic environment at the monitoring locations. The following can be inferred from the 18-day monitoring period:

- The existing noise environment at N1-N217 Leadbetters Lane shows little to no influence from road traffic noise or from the Teven Quarry operations;
- The existing noise environment at N2-433 Teven Road is influenced by road traffic noise from Teven Road; and
- The existing noise environment at N3-168 Wellers Road shows the influence of local noise sources specifically from insects (cicadas) and frogs.

During the monitoring program the contribution of noise from other industrial sources was estimated to be more than 10 dB below the mean Leq and would therefore not contribute to the existing cumulative industrial noise levels.

4.2 Noise Monitoring since 2017

2017 was the first full year of noise monitoring results collected (four quarters of monitoring). The results for noise in 2017 and 2018 were within the predicted limits of the EIS predictions.

For 2019, noise results at all locations were within the approved performance criteria for the site with the exception of N4 during quarter 2. This result was reported to DPIE.

Upon investigation, it was discovered that the noise monitoring consultant was not able to undertake monitoring at the actual residential receiver nominated in the *Noise Management Plan* as a result of land access restrictions. As a result, monitoring was undertaken approximately 284m from the nominated NM4 location in the direction of the active quarrying operation.

The data recorded at the alternative location was extrapolated to provide an indication at the actual residential receiver. This extrapolation accounts for distance only and did not consider topographical features between residential receivers and the alternative location. The extrapolation process is formulaic and does not allow for further interrogation of environmental factors to provide further refinement. It was estimated that the contribution when measured at N4, was likely to be higher than the actual noise contribution at the residential receiver (NM4).

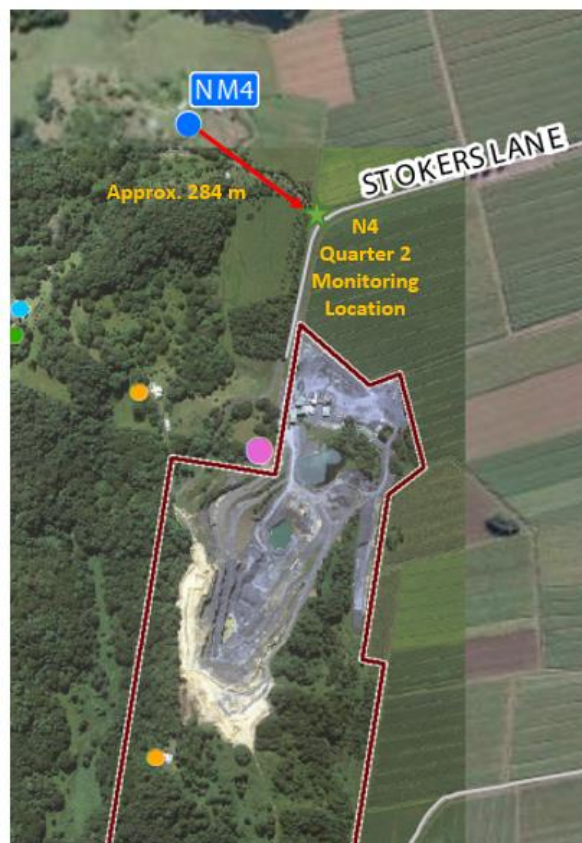
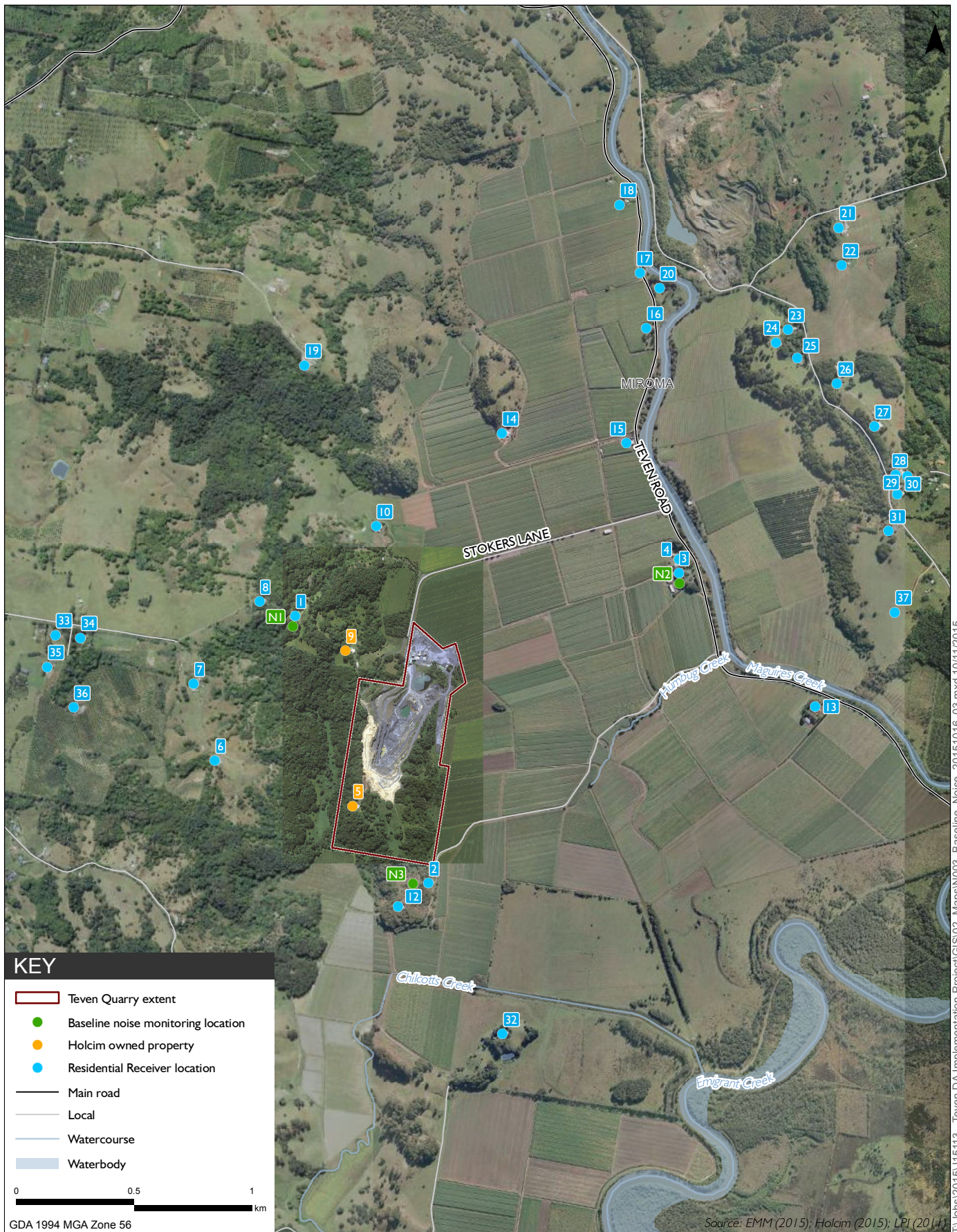


Figure 3 May 2020 – NM4 and N4 Monitoring Location



Baseline noise monitoring locations and sensitive receivers

Teven Quarry
Noise Management Plan

Figure 4

5. Potential Noise and Blasting Impacts

Noise impacts were assessed for the 2005 EIS and 2014 EIS. Potential noise impacts identified by the 2005 and 2014 EIS's included:

- Noise generated from trucks entering and leaving the site;
- Noise generated from blasting events; and
- Noise generated from general quarry activities including crushing, screening and stockpiling.

Providing blasts are designed and implemented correctly by experienced blast engineers then blasting impacts were modelled to be within the Development Consent (SSD 6422) criteria. A separate Blast Management Plan has been prepared to cover Schedule 3 Condition 10 of the Development Consent (SSD 6422).

6. Noise Assessment Criteria

Noise criteria are set for day and evening periods to protect the amenity of neighboring residents. Noise criteria (expressed as a Leq(15-min) limit) are specified in Schedule 3 Condition 4 of the Development Consent (SSD 6422) for Teven Quarry and are detailed below in **Table 6**.

Table 6 Noise Criteria from Development Consent

Receiver	Day dB(A) (L _{Aeq} (15 min))	Evening dB(A) (L _{Aeq} (15 min))
R3, R4, R13, R15, R16, R17, R18, R20	38	35
All other residences	37	35

Notes:

- Monday to Saturday is 7:00 am to 6:00 pm, Evening 6:00 pm to 10:00 pm and Night 10:00 pm to 7:00 am; on Sundays and Public Holidays, Day is 8:00 am to 6:00 pm, Evening 6:00 pm to 10:00 pm and Night 10:00 pm to 8:00 am.

The noise criteria are to apply under all meteorological conditions except the following:

- There is a negotiated agreement in place with the landowner; or
- Wind speeds greater than 3 metres per second (m/s) at 10 m above ground level; or
- Temperature inversion conditions up to 3°/100 m and wind speed greater than 2 m/s at 10 m above ground level; or
- Temperature inversion conditions greater than 3°/100 m.

Condition L4.2 of the EPL 3293 (see **Table 7**) outlines the noise monitoring criteria for Point 2 (168 Wellers Road) of the EPL. This is classified as the 'R2' receiver.

Table 7 Noise Criteria from the EPL

Time period	Measurement Parameter	Measurement Frequency	Noise Level dB (A)
Day	Day-L _{Aeq} (15 minute)	Yearly	37
Evening	Evening-L _{Aeq} (15 minute) (6pm-10pm Mon.-Sun.)	Yearly	35

Table 8 Noise Criteria from the EPL

Assessment period	Measurement Parameter	Minimum duration within assessment period	Minimum number of assessment period
Day	Yearly	1.5 hours	1 operation day

Holcim shall ensure that the noise generated by the development does not exceed the criteria in **Table 6, Table 7 and Table 8** at any residence on privately-owned land. The noise monitoring reports will assess compliance against both the Development Consent (SSD 6422) and EPL 3293 criteria.

7. Noise Management

Teven Quarry is committed to implementing reasonable and feasible best practice noise mitigation measures and investigating ways to minimise the operational and road traffic noise generated by Teven Quarry. Further information regarding mitigation measures which will assist in the minimisation of noise as a result of traffic to and from the site (in particular haulage traffic) are provided in the Teven Quarry Transport Management Plan, which outlines the limitations on numbers of haulage truck movements from the site.

In order to mitigate any potential noise impacts from the operation, a number of noise management controls will be implemented throughout the life of the operation. These controls are outlined in:

- The Teven Quarry Project EIS (EIS, Umwelt 2014);
- The Development Consent (SSD 6422) noise management conditions (Schedule 3 Conditions 1-6);
- General management plan requirements listed in Schedule 5 Conditions 2 and 3 of the Development Consent (SSD 6422); and
- The Development Consent (SSD 6422) Statement of Commitments (Appendix 3 Conditions 15-17 of the Development Consent (SSD 6422)).

In accordance with the Statement of Commitments detailed in Appendix 3 of the Development Consent (SSD 6422), Holcim will undertake regular inspections and maintenance of noise attenuation systems and will ensure that a periodic review of noise performance is undertaken annually to ensure compliance with the project Development Consent (SSD 6422).

The relevant noise controls for the operation are detailed in **Table 9**.

Table 9 Noise Quality Control

Mitigation ID	Mitigation Measure	Reference Document	When Required	Responsibility
Hours of operation				
N1	Noise amenity for sensitive receivers in the vicinity of Teven Quarry has been managed by restricting hours of operation.	Best practice	At all times	Quarry Manager
Operational Controls				
N2	Use of best management practice in controlling noise at the source through the elimination of noisy equipment, relocating equipment or reorientation of equipment to reduce the noise impacts.	Appendix 3 of Development Consent - Statement of Commitments	At all times	Quarry Manager
N3	Implementation of an ongoing regular maintenance program for operational equipment.		At all times	Quarry Manager
N4	Limiting extractive activities to the day-time period only.		At all times	Quarry Manager
N5	The maintenance of product stockpiles in strategic locations, where practicable, along the northern edge of the project site to provide acoustic shielding of product trucks and product loading equipment to nearby residences.		At all times	Quarry Manager
N6	The use of broad band reversing alarms instead of beeper style alarms on all mobile equipment.		At all times	Quarry Manager
N7	The management of mobile machines during adverse weather conditions when strong winds enhance the noise propagation towards sensitive receiver locations. In order to control/eliminate noise impacts this would likely include; <ul style="list-style-type: none"> ensuring the sales loader operates behind the product stockpile during adverse weather conditions in the evening period; moving quarrying activities to locations deeper in the quarry pit (where possible) during adverse weather conditions; and shut down of some equipment during adverse weather conditions if required. 		At all times	Quarry Manager
Meteorological Controls				
N8	Holcim will review daily Bureau of Meteorology's (BOM) meteorological forecasts.	Appendix 3 of Development Consent - Statement of Commitments	Daily when operating	Quarry Manager
N9	Ensure that the sales loader operates behind the product stockpile during adverse weather conditions in the evening period where strong prevailing winds are blowing in the direction of sensitive receivers.		During adverse weather	Quarry Manager

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Mitigation ID	Mitigation Measure	Reference Document	When Required	Responsibility
N10	Move quarrying activities to locations deeper in the quarry pit during adverse weather conditions.		During adverse weather	Quarry Manager
N11	Shut down of some equipment during adverse weather conditions if required.		During adverse weather	Quarry Manager

8. Noise Monitoring

8.1 Monitoring locations

Noise monitoring locations have been selected based upon their spatial appropriateness in terms of capturing the representative noise levels nearby to residential receivers. **Table 10** below details the location of each noise monitoring location and the rationale behind the selection of each site.

Table 10 Monitoring Locations

Site Name	Address	Rationale for Selection
NN1	217 Leadbeatters Lane, Teven	Residential receivers 1. Considered to be representative for residential receivers 1, 6, 7, 8, 10 & 19 surrounding the Project Area and is nearest potentially affected residential receiver.
NN2	433 Teven Road, Teven	Residential receivers 3 and 4. Considered to be representative for residential receivers 3, 4, 13, 15, 16, 17, 18 & 20 surrounding the Project Area and is nearest potentially affected residential receiver.
NN3	168 Wellers Road, Teven	Residential receivers 2 and 12. Considered to be representative for residential receivers 2, 12 & 32 surrounding the Project Area. EPL 3293 noise monitoring location (EPA identification no. 2, EPL Location 168 Wellers Road, Teven).

Attended monitoring will be undertaken within 30 m of a private residence, where possible. Land access will be requested, and if access is denied or not possible, monitoring will take place at the nearest publically available representative location. During each monitoring event, the following should be assessed to ensure general compliance with the Development Consent (SSD 6422):

- Determine the individual noise sources contributing to the ambient noise environment;
- Estimate the contribution from quarry noise sources to the measured noise levels;
- Determine whether a modifying factor should be applied to the contributing quarry noise levels in accordance with the Noise Policy for Industry (2017); and
- Gain an understanding of the effects of meteorological conditions on the propagation of noise from Teven Quarry to the monitoring location.

Schedule 3 Condition 5 (c) of the Development Consent (SSD 6422) stipulates that noise monitoring should be carried out at least quarterly (every three months).

8.1.1 Noise Monitoring Prior to 2020

Each quarterly monitoring round comprised of at least two 15 minute measurements at each location during each specified time period (i.e. day and evening). For each 15 minute monitoring period, the information provided in **Table 11** has been recorded.

Table 11 Noise Monitoring Checklist

Consideration	Details
Operator and location details	Operator's name
	Monitoring location
	Dates/times that monitoring began and ended at each location
Noise instrument details	Height of microphone above the ground and, if relevant, distances to building facades or property boundaries
	Dates/times that monitoring began and ended at each location
Meteorological	Review of weather station data prior to beginning monitoring period to inform opinions as to the historic prevailing wind directions
	Observations of weather conditions during monitoring period at microphone height and from the AWS
Noise monitoring data	Obtain the LAeq, 15 minute noise level for the 15 minute period
	Provide detail on the statistical noise level descriptors over the 15 minute period: LAmin, LA90, LA10, LA1 and LAmx
	Measurements in one-third octave bands for the 15 minute period to assess if any of the noise sources exhibit tonal characteristics that may require modifying factors to be applied
	Data suitable for assessing the relative contribution of quarry-generated noise to the overall noise being generated
Environmental observations	Noise source observations that contribute to the maximum noise levels (LA1 or LAmx) and noise sources that contribute to the overall ambient noise environment
	An estimate of the noise contribution from operations at Teven Quarry

8.1.2 Proposed New Noise Monitoring

This will include three locations monitored as per in accordance with the Australian Standard AS 2659.1 – 1998: Guide to the use of sound measuring equipment – Portable sound level meters and the Noise Policy for Industry (2017). If no operations are occurring (including product transport) within the evening period (6pm – 10 pm) in any quarterly monitoring period, no noise monitoring will occur.

8.2 Meteorological monitoring

Meteorological data will be obtained from an Automated Weather Station (AWS) installed on-site with the Ballina Airport BoM Station (~5 km) used as a redundancy back-up. Both the AWS and Ballina Airport BoM Station meets the requirements of Schedule 3 Condition 15 of the Development Consent (SSD 6422).

The noise criteria are to apply under all meteorological conditions except the following:

- There is a negotiated agreement in place with the landowner; or
- Wind speeds greater than 3 metres per second (m/s) at 10 m above ground level; or
- Temperature inversion conditions up to 3°/100 m and wind speed greater than 2 m/s at 10 m above ground level; or
- Temperature inversion conditions greater than 3°/100 m.

The location of the AWS has been shown on **Figure 5**. The weather station has been scheduled to be upgraded to 3G capabilities to allow data to be remotely downloaded.



Source: Nearmap (January 2020)

Noise receivers and monitoring locations

Figure 5

9. Reporting and Compliance Management

9.1 Regular reporting

A summary of noise monitoring results will be provided in the Teven Quarry Annual Review. The following information will be reported in the annual report in accordance with Schedule 5 Condition 4 of the Development Consent (SSD 6422). The Annual Review will be made available to the public through the Teven Quarry website.

The effectiveness of the noise management controls utilised at Teven Quarry will be reported to DPIE within the Annual Review by the reporting of monitoring data. The Annual Review will also identify whether any additional management controls are required to be implemented at Teven Quarry or whether there are any technological advancements in noise management which are suitable for implementation at Teven Quarry.

Additionally, in accordance with *Protection of the Environment Legislation Amendment Act 2011 (Amendment Act)* and Schedule 5 Condition 11 of the Development Consent (SSD 6422), Holcim will also publish the annual EPL 3293 noise monitoring results on the Holcim (Australia) website <http://www.holcim.com.au>.

9.2 Evaluation of Noise Results and Reporting

All noise monitoring results will be publicly available on Holcim's website.

Holcim will report noise monitoring data annually, including a historical comparison, in the Annual Review to the DPIE. Annual reporting to the EPA will be completed through the EPL Annual Return.

If the monitoring results are found to be outside the sites noise criteria the Quarry Manager will initiate the following protocol:

- As soon as becoming aware of the breach of results the Quarry Manager will notify the Environment Manager and enter the incident into the Holcim Safety, Health & Environment (SHE) reporting database (INX).
- The Quarry Manager will notify the Secretary of the DPIE (and of the EPA if applicable) of the incident as soon practicable.
- A report will be prepared and submitted by the Quarry Manager to the DPIE (and EPA if applicable) within 7 days of becoming aware of the incident, this report will include:
 - Cause of the non-compliance.
 - Environmental Harm caused due to the non-compliance.
 - Actions undertaken to rectify the non-compliance and ensure.

Following the reporting of subsequent review, should it be concluded that the Quarry is the source of elevated noise results, the continuous improvement process outlined in the EMS is to be implemented and corrective actions identified.

9.3 Independent Review

In the event that a landowner considers that Teven Quarry is exceeding noise criteria at their property, the landowner may request an independent review of the noise impacts at the property. The independent review will be conducted in accordance with the procedure described in Schedule 4 Condition 2 of the Development Consent (SSD 6422).

9.4 Community Complaints

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Complaints relating to noise from Teven Quarry are to be managed in accordance with the requirements of the Teven Quarry EMS. A summary of complaints will be published on the Teven Quarry website and provided in the Annual Review. If Teven Quarry receives a noise complaint the site will investigate the source of the complaint and if Teven Quarry was a contributing factor, activities will be altered manage noise impacts effectively. The site will liaise with the complainant as per the EMS.

10. Adaptive Management/Contingency Response

In accordance with Schedule 5 Condition 3 of the Development Consent (SSD 6422), Holcim will assess and manage noise related risks to ensure compliance with the noise criteria.

Where a non-compliance has occurred, Holcim will, to the satisfaction of the DPIE:

- Take all reasonable and feasible measures to ensure the exceedance ceases and does not reoccur;
- Consider all reasonable and feasible options for remediation (where relevant) and submit a report to the DPIE describing those options and any preferred remediation measures or other course of action; and
- Implement remediation measures as directed by the Secretary.

The Continuous improvement process shall strive to:

- Identify areas of opportunity for improvement of environmental management and performance;
- Determine the cause or causes of non-conformances and deficiencies;
- Develop and implement a plan of corrective and preventative action to address any non- conformances and deficiencies;
- Verify the effectiveness of the corrective and preventative actions;
- Document any changes in procedures resulting from process improvement; and
- Make comparisons with objectives and targets.

Table 12 outlines the Trigger Action Response Plan (TARP) for this management plan which has been prepared to meet Schedule 5 Condition 2 e) of the Development Consent.

Table 12 Trigger Action Response Plan

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
High winds	Trigger	Wind Speeds below 15kph.	Wind Speeds between 15 and 30kph.	Wind Speeds > 30kph.
	Response	Continue implementation. NMP	Support Services Supervisor reviews effectiveness of control measures. Implement additional remedial measures, which may include: <ul style="list-style-type: none"> • Relocation or modification of noise-generating sources; and • Temporary halting of noise generating activities. 	Inspection of site by Production and Quarry Managers to determine if there is a need to halt high noise generating activities. <ul style="list-style-type: none"> • Halted activities do not recommence until remedial measures or additional remedial measures are in place or wind speeds drop to acceptable levels; and • Record as a non – compliance in the incident report.
	Trigger	Noise levels do not exceed applicable NMLs (Table 6).	Noise levels reach applicable NMLs (Table 6).	Noise levels exceed applicable NMLs (Table 6).

Teven Quarry NMP

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
Noise impacts at sensitive receiver locations	Response	Ongoing best practice management measures to minimise noise emissions.	Carefully monitor noise levels and prepare for a potential exceedance.	Undertake all feasible and reasonable mitigation and management measures to minimise noise impacts.

11. Review and Improvement

Ongoing monitoring and review of the performance and implementation of this NMP will be undertaken in accordance with the Teven Quarry EMS.

In accordance with Schedule 5 Condition 5 of the Development Consent (SSD 6422), Holcim shall review, and if necessary revise, the strategies, plans, and programs required under the Development Consent (SSD 6422) to the satisfaction of the Secretary, within 3 months of the submission of an:

- Annual review under Condition 4;
- Incident report under Condition 7;
- Audit report under Condition 9; and
- Any modifications to this consent.

In terms of Schedule 5 Condition 5 sub clause a), the requirement to review and update management plans will be assessed during the preparation of each Annual Review. The Annual Review will state which management plans require updating and which management plans do not require updating. Details on the requirements to prepare Annual Reviews are outlined in the EMS.

Updated versions of management plans will be put on the Teven Quarry website once approved.

12. Definitions

The terminology utilised within this NMP is defined in **Table 13** below.

Table 13 Terminology Utilised within the Noise Management Plan

Term	Definition
Daytime	In relation to noise criteria it is the period 7.00 am to 6.00 pm Monday to Saturday and 8.00 am to 6.00 pm Sundays and public holidays.
Decibel dB(A)	A decibel scale, weighted so that it takes into account the frequency response of the normal human ear.
Evening	In relation to noise criteria is the period 6.00 pm to 10.00 pm.
LAeq (Period)	The average equivalent noise level, measured in dB(A), during a measurement period (e.g. 15 minute, day, evening or night).
LA1	The noise level, measured in dB(A), which is exceeded for 1 per cent of the measurement period.
LA10	The noise level, measured in dB(A), which is exceeded for 10 per cent of the time.
LA90	The noise level, measured in dB(A), which is exceeded for 90 per cent of the time, referred to as the background noise level.
Night	In relation to noise criteria it is the period 10.00 pm to 7.00 am Monday to Saturday and 10.00 pm to 8.00 am Sundays and public holidays.
Non-Compliance	Occurs when environmental monitoring results fall outside acceptable regulatory limits (i.e. Project Approval or EPL criteria).

13. Roles and Responsibilities

Relevant roles and responsibilities associated with this NMP are presented in **Table 14**.

Table 14 Roles and responsibilities

Role	Accountabilities for this Document
Holcim Australia General Manger and Operations Manager	<ul style="list-style-type: none"> • Approve appropriate resources for the effective implementation of this plan.
Teven Quarry Manager	<ul style="list-style-type: none"> • Provide sufficient resources for the implementation of this plan; • Coordinate the noise monitoring requirements of this Plan, evaluate and report monitoring results as required; • Coordinate noise related incident investigations and reporting as required by legislation, internal standards and guidelines; • Coordinate the implementation of noise management controls and strategies in accordance with this Plan; and • Coordinate the review of this plan in accordance with the requirements of the Development Consent (SSD 6422).
Environmental Manager	<ul style="list-style-type: none"> • Coordinate the noise monitoring requirements of this Plan, evaluate and report monitoring results as required; • Coordinate noise related incident investigations and reporting as required by legislation, internal standards and guidelines; and • Assist with the review of this Plan.
All employees and contractors	<ul style="list-style-type: none"> • Comply with all requirements of this Plan; • Report all potential environmental incidents to the Quarry Manager immediately; and • Seek approval from the Quarry Manager prior to making changes to infrastructure/processes which may result in increased noise emissions.

14. Reference

NSW Environmental Protection Authority (EPA) 2017. Noise Policy for Industry

Standards Australia, AS 1055:2018 Acoustics - Description and measurement of environmental noise

Standards Australia, AS 2702-1984 Acoustics – Methods for the Measurement of Road Traffic Noise

Standards Australia, AS/NZS 3580.14:2014 - Methods for sampling and analysis of ambient air Meteorological monitoring for ambient air quality monitoring applications

Standards Australia, AS/NZS IEC 61672.1:2019 - Electroacoustics - Sound level meters Specifications

Umwelt (Australia) Pty Limited 2014. Teven Quarry Project Environmental Impact Statement, Report prepared for Holcim (Australia) Pty Limited

15. Change Information

Version	Date	Change Summary
1	October 2015	Original document
2	May 2016	Update
3	August 2020	<p>Review of the template for all Teven management plans;</p> <ul style="list-style-type: none"> • General structure updates; • Section 2- Consultation; • Section 3 – Statutory requirements – separate section; • Section 4 – update to baseline information; • Section 5 – Addition of potential impacts section; • Section 7 – inclusion of responsibilities and timing for controls. Additional controls added. • Section 10 – addition of adaptive management information; and • Section 14 – inclusion of change information. <p>The following did not change:</p> <ul style="list-style-type: none"> • No change to monitoring or reporting requirements; and • No change to figures
4	April 2021	See Appendix A for changes in response to DPIE's review.

DPIE

From: no-reply@majorprojects.planning.nsw.gov.au <no-reply@majorprojects.planning.nsw.gov.au>

Date: Mon, 12 Oct 2020 at 12:49

Subject: Teven Quarry - Noise Management Plan SSD-6422-PA-14 - Request for Additional Information

To: <evan.smith@lafargeholcim.com>

Cc: <Mark.Davis@planning.nsw.gov.au>

Dear Evan Smith,

The Department is requesting that you provide additional information in relation to the Teven Quarry - Noise Management Plan.

Please access your profile for details of this request and to upload your response. You are requested to provide this response by 6/11/2020 .

If you have any enquiries, please contact Mark Davis at Mark.Davis@planning.nsw.gov.au .

To sign in to your account click [here](#) or visit the [Major Projects Website](#).

Please do not reply to this email.

Kind regards

Department of Planning, Industry and Environment



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From: **Colin Phillips** <Colin.Phillips@planning.nsw.gov.au>

Date: Mon, 12 Oct. 2020, 1:29 pm

Subject: DPIERreview of Teven Quarry Management Plans.

To: evan.smith@holcim.com <evan.smith@holcim.com>

Cc: Mark Davis <Mark.p.Davis@planning.nsw.gov.au>

Good afternoon Evan,

Here are the 6 DPIE reviews of the Teven Quarry 2020 Management Plans. These reviews are available to you on the NSW Planning Portal.

Teven Quarry NMP

There is no review of the Water MP and it has been rejected so that it can be re-submitted with relevant material corrected.

Look forward to catching up in 30 minutes.

Colin Phillips
Team Leader

Energy and Resource Assessments

4 Parramatta Square | 12 Darcy Street | Locked Bag 5022 | Parramatta NSW 2124

T 02 9274 6483 E: colin.phillips@planning.nsw.gov.au



Mr Evan Smith
Environmental Manager
Teven Quarry
By email: evan.smith@lafargeholcim.com
12/10/2020

Dear Mr. Smith

**Teven Quarry (SSD-6422)
Request for Additional Information**

I refer to your submission of the revised Noise Management Plan (NMP), dated August 2020, in accordance with condition 6 of Schedule 3 of the Teven Quarry development consent (SSD-6422).

The Department has carefully considered the revised NMP and requests that you provide additional information as detailed in Attachment A.

You are requested to provide the revised NMP to the Department by Friday 6 November 2020. If you are unable to meet this deadline, you are required to provide an updated timeframe for the provision of this information.

If you have any questions, please contact Mark Davis, who can be contacted at 8275 1518.

Yours sincerely

A handwritten signature in black ink that reads 'Colin Phillips'.

Colin Phillips
Team Leader
Resource Assessments (Coal & Quarries)

Attachment A
Teven Quarry
Noise Management Plan (NMP) Review – Oct 2020

Noise Management Plan (NMP), Schedule 3, Condition 6	Satisfactory (Yes/No)	Comment	Action Required	Holcim Response
6. The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with EPA;	Partial	<ul style="list-style-type: none"> • DPIE requires Holcim either consult with the EPA in the preparation of this revised NMP or obtain the Secretary’s approval prior to the preparation this revised NMP without undertaking further consultation with the EPA. • Table (T.) 2: Development Consent Conditions 4-6 should all be referenced to Schedule 3. • EIS Statement of Commitments in T.3 should also include commitments 18 & 19 from Appendix 3 of the Development Consent. 	<ul style="list-style-type: none"> • Holcim must update this plan to address the DPIEs comments. 	<ul style="list-style-type: none"> • A copy of the revision was sent to EPA on 2 February 2021. EPA responded on 3 February 2021 stating that the management plan was satisfactory, and all monitoring points appear appropriate. • Reference amended. • EIS commitment 18 and 19 added to Table 3.
(b) be submitted to the Secretary within 6 months of the date of this consent, unless otherwise agreed by the Secretary;	Yes	<ul style="list-style-type: none"> • NMP 		
(c) describe the measures that would be implemented to ensure: <ul style="list-style-type: none"> • compliance with the noise criteria in this consent; • best practice management is being employed; and • the noise impacts of the development are minimised during meteorological conditions under which the noise criteria in this consent do not apply (see Appendix 5); 	No	<ul style="list-style-type: none"> • Section (S.5) Potential Noise Impacts have not been included in this section. 		<ul style="list-style-type: none"> • Potential noise impacts added including noise associated with transport on and offsite, noise associated with blasting and noise associated with crushing, screening and stockpiling product.
(d) describe the proposed noise management system; and	Yes	<ul style="list-style-type: none"> • S.7 T.9 		
(e) include a monitoring program to be implemented to measure noise from the development against the noise criteria in Table 2, and which evaluates and reports on the	Yes	<ul style="list-style-type: none"> • S.8 		

Teven Quarry NMP

Noise Management Plan (NMP), Schedule 3, Condition 6	Satisfactory (Yes/No)	Comment	Action Required	Holcim Response
effectiveness of the noise management system on site.				
Other Comments			Holcim Response	
<p>Figure 1 needs to be updated to include the current Pacific Highway route. S.7 paragraph above T.7 replace 168 'Wells Road' with 168 'Wellers Road'. T.9 Reference Document EA Statement of Commitments should be Appendix 3 Development Consent Statement of Commitments. T.9 Noise monitoring data includes reference to sleep arousal criteria however the quarry does not operate at night and therefore no need to calculate the LA1 level. S.8.1.2 If any evening activities occur in any quarterly monitoring period, then DPIE requires noise monitoring to be undertaken during the evening period while the quarry is operational (including product transport). The only reason acceptable to the DPIE for not undertaking noise monitoring during the Evening Period is if no quarry operations were to occur during that particular quarterly period. S.9.2 What is INX?</p>			<ul style="list-style-type: none"> • No change to Figure 1. • Addressed. • Reference amended. • Deletion of reference to sleep arousal criteria. • Change to wording to make this commitment clearer. • Expansion of INX. 	



Evan Smith
Environment Manager and Sustainability Lead
18 Little Cribb Street
Milton, QLD, 4064

20/04/2021

Dear Mr. Smith

**Teven Quarry (SSD-6422)
Noise Management Plan - request for additional information**

I refer to your submission of the revised Noise Management Plan (NMP), dated April 2021, in accordance with condition 6 of Schedule 3 of the Teven Quarry development consent (SSD-6422).

After consideration, the Department requests that you provide additional information as detailed in Attachment A.

Please provide the information, or notify us that you will not provide the information by Mon 17 May 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 Emily Pemberton on 8275 1783 or at emily.pemberton@dpie.nsw.gov.au.

Yours sincerely

A handwritten signature in blue ink, appearing to read "James McDonough".

James McDonough
Team Leader
Resource Assessments (Coal & Quarries)

Teven Quarry
Noise Management Plan (NMP) Review – April 2021

Noise Management Plan (NMP), Schedule 3, Condition 6	Satisfactory (Yes/No)	Comment	Action Required	Holcim Response
6. The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with EPA;	Partial	Evidence of consultation with the EPA provided in Appendix A.	Nil	
		Table 2: Development Consent Condition 4 is transcribed incorrectly. The incorrect condition table number is referenced in the text of the Noise Management Plan Table 2.	Update Table 2 in the NMP to correctly reference the condition 4 of Schedule 3 of the consent	Addressed
		Table 2 should fully reflect the applicable conditions, however the noise criteria values table of condition 4 is missing from the NMP Table 2.	Include the noise criteria table in condition 4 of Schedule 3 of the consent within the Table 2 of the NMP.	Addressed
		Table 2 should fully reflect the applicable conditions, however schedule 3, condition 5 (b) and (d) do not include the full condition text.	Nil	
(b) be submitted to the Secretary within 6 months of the date of this consent, unless otherwise agreed by the Secretary;	Yes	The original version of the NMP was submitted in October 2015, three months after the date of the consent.	Nil	
(c) describe the measures that would be implemented to ensure: <ul style="list-style-type: none"> • compliance with the noise criteria in this consent; • best practice management is being employed; and • the noise impacts of the development are minimised during meteorological conditions under which the noise criteria in this consent do not apply (see Appendix 5); 	Yes	Section 5	Nil	
(d) describe the proposed noise management system; and	Yes	Section 7, Table 9	Nil	
(e) include a monitoring program to be implemented to measure noise from the development against the noise criteria in Table 2, and which evaluates and reports on the effectiveness of the noise management system on site.	Yes	Section 8	Nil	

Other Comments	Holcim Response
<ul style="list-style-type: none"> The Noise Management Plan was submitted under condition 10 of Schedule 3 (Blast Management Plan), not condition 6 of Schedule 3 (Noise Management Plan). 	<p>Noted. This management plan will be submitted under the correct condition.</p>
<ul style="list-style-type: none"> Figure 1 needs to be updated to include the current Pacific Highway route. The base map is dated 2015 and is missing a section of the current highway. 	<p>Figure 1 was checked and the base layer was from 2020 with the Pacific Highway in the correct location. We suggest DPIE reviewed the previous version of the figure which was still within the tracked changes version of this management plan.</p>
<ul style="list-style-type: none"> Section 7 Table 9 Reference Document “Appendix 3 Development Consent (SSD 6422)” should be “Appendix 3 Development Consent - Statement of Commitments”. 	<p>Addressed</p>
<ul style="list-style-type: none"> Section 8.1.2 references section 3.1 as a statutory context for monitoring 3 locations should evening noise monitoring be required, however, Section 3.1 does not specify the number of sampling locations. If the NSW Industrial Noise Policy (Appendix 5) is meant to be referenced in Section 8.1.2, please update the reference in Section 8.1.2. 	<p>Reference has been corrected to the NSW Industrial Noise Policy</p>
<ul style="list-style-type: none"> Section 8.1.2 references three noise monitoring locations. The frequency of noise monitoring is also relevant per the EPL 3293 (M6.1). Please specify the proposed new monitoring scheme in Section 8.1.2. 	<p>Addition of text outlining noise monitoring will be undertaken in accordance with the Noise Policy for Industry 2017 and the Australian Standard AS 2659.1 – 1998: Guide to the use of sound measuring equipment – Portable sound level meters</p>
<ul style="list-style-type: none"> Section 9.2 Please add a glossary item for the acronym “INX”. 	<p>INX is the name of the data base rather than an acronym.</p>
<ul style="list-style-type: none"> References: Please update reference to the most recent Australian Standard for AS 1055 and update reference throughout the NMP text. 	<p>All references have been updated.</p>

Teven Quarry NMP

EPA

Hi Evan,

Thanks for the revised updated Noise Management Plan (NMP).

The EPA has not identified any issues with the plan. The monitoring points appear appropriate.

Regards

Peter Lynch

Operations Officer - Regulatory Operations

NSW Environment Protection Authority

Phone: 02 66402502

Mobile: 0438 208 131

peter.lynch@epa.nsw.gov.au www.epa.nsw.gov.au [@NSW_EPA](https://twitter.com/NSW_EPA) [EPA YouTube](https://www.youtube.com/watch?v=...)

Report pollution and environmental incidents on 131 555 (NSW only) or +61 2 9995 5555



From: Evan Smith <evan.smith@lafargeholcim.com>

Sent: Tuesday, 2 February 2021 4:00 PM

To: Peter Lynch <Peter.Lynch@epa.nsw.gov.au>

Cc: Shilpa Shashi <shilpa.shashi@lafargeholcim.com>; Samuel McDonald <smcdonald@slrconsulting.com>

Subject: Holcim Teven Quarry - Revised Noise Management Plan (NMP)

Teven Quarry NMP

Hi Peter,

Hope you had a good break. I am in the process of updating the Noise Management Plan for Holcim's Teven Quarry as part reviewing and updating all site documents.

Please find attached:

- the draft updated Noise Management Plan (NMP)
- DPIE's review comments
- The revised updated Noise Management Plan (NMP) incorporating DPIE's feedback with tracked changes

DPIE notes that they require Holcim to either:

1. consult with the EPA in the preparation of this revised NMP or
2. obtain the Secretary's approval prior to the preparation of this revised NMP without undertaking further consultation with the EPA.

Are you in a position to be able to review the attachment revised draft management plan and let me know if you have any comments or questions?

Regards,

Evan Smith | RPEQ CPEng

Environment Manager and Sustainability Lead
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