

# BORAL RESOURCES (NSW) PTY LTD

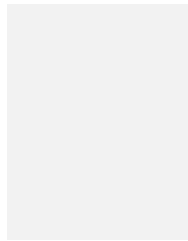
## Peppertree Quarry - Independent Environmental Audit 2018

07 MARCH 2019





## CONTACT



**BRAD SEARLE**  
Business Leader -  
Environment


**T** +61 8907 9059  
**M** +61 (0)408 204 054  
**E** [brad.searle@arcadis.com](mailto:brad.searle@arcadis.com)

**Arcadis**  
Level 16, 580 George Street,  
Sydney, NSW 2000




# BORAL RESOURCES (NSW) PTY LTD PEPPERTREE QUARRY INDEPENDENT ENVIRONMENTAL AUDIT 2018


## Audit Report

**Author** Sean Fishwick, Bradley Searle 

---

**Checker** Denise Day 

---

**Approver** Bradley Searle 

---

**Report No** 1  
**Date** 7/03/2019  
**Revision Text** 02

This report has been prepared for Boral Resources (NSW) Pty Ltd in accordance with the terms and conditions of appointment for Independent Environmental Audit 2018 dated November 2018. Arcadis Australia Pacific Pty Limited (ABN 76 104 485 289) cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.

## REVISIONS

Revision	Date	Description	Prepared by	Approved by
01	21/12/18	Draft for Boral Review	SF, BS	BS
02	07/03/19	Final	SF, BS	BS



# CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>1 INTRODUCTION.....</b>	<b>3</b>
1.1 Background .....	3
1.2 Audit Scope .....	4
1.2.1 Audit Criteria.....	5
1.2.2 Audit Timeframe .....	5
1.3 Limitations .....	6
<b>2 AUDIT METHODOLOGY .....</b>	<b>7</b>
2.1 Approach .....	7
2.2 Audit team.....	8
2.3 Agency and Stakeholder Consultation.....	8
2.4 Actions from Previous Audits .....	8
2.5 Document Review .....	8
2.6 Interviews.....	9
2.7 Assessment Terminology.....	9
2.8 Audit Response and Close-out .....	10
<b>3 AUDIT FINDINGS .....</b>	<b>11</b>
3.1 Recommendations from Previous Audits .....	11
3.1.1 2016 DP&E Compliance Audit Close Out.....	11
3.1.2 2015 Independent Environmental Audit Close Out.....	11
3.2 Summary of Compliance .....	11
3.2.1 Project Consent.....	11
3.2.2 Environmental Protection Licences .....	12
3.3 Government Agency and Stakeholder Consultation.....	13
3.4 Environmental Performance Summary .....	14
3.5 Environmental Risk.....	16
3.6 Adequacy of Existing Plans and Procedures .....	17
3.7 Observations and Improvement opportunities.....	19
<b>4 CONCLUSIONS.....</b>	<b>23</b>

# APPENDICES

## **APPENDIX A**

Development Consent (modification 4)

## **APPENDIX B**

Environmental Protection Licence

## **APPENDIX C**

Agency Correspondence

## **APPENDIX D**

Compliance with the Project Approval (2018)

Compliance with the Environmental Protection Licence (2018)

## **APPENDIX E**

Previous Audit Evidence: 2016 DP&E Audit Close Out Findings

Previous Audit Evidence: 2015 Independent Audit Evidence

## **APPENDIX F**

Audit team endorsement



## EXECUTIVE SUMMARY

This audit report has been prepared in response to Schedule 5 Condition 11 of the Ministers Conditions of Approval (MCoA) (06\_0074) for Peppertree Hard Rock Quarry owned by Boral Resources (NSW) Pty Ltd. Condition 11 – Independent Environmental Audit – sets out the requirements to assess compliance with the Project Approval and Environment Protection Licence (EPL), review the adequacy of strategies, plans and programs prepared under the consent and EPL, assess the environmental performance of the development and recommend actions and measures to improve environmental performance.

This audit has been undertaken in line with the principles and process of AS/NZS 19011:2014 *Guidelines for quality and/or environmental management systems audit* and the Independent Environmental Audit Guideline, (NSW Government, 2015) in accordance with DP&E correspondence on 26 September 2018.

### Close out of previous Audit Findings

Arcadis has reviewed the findings from two previous audits:

- 2016 DP&E Compliance Audit (Boral Peppertree Quarry Compliance Audit)
- 2015 IEA prepared by Arcadis (Boral Resources (NSW) Pty Ltd Peppertree Quarry Environmental Audit)

There were three and 15 recommendations made in each report respectively, as detailed in Appendix E. The status of the 18 recommendations associated with the previous audits are as follows:

- Complete: 14
- Incomplete: 4

Three of the recommendations from the 2015 DP&E Audit have not been implemented, and therefore, non-compliances / observations in relation to the same conditions or issues were identified in this audit.

### Assessment of compliance with the Development Consent Conditions

The overall audit findings against the conditions in each schedule of the consent are presented below. Of the 61 'applicable' conditions, 49 (80%) were found to be compliant, 3 (3%) non-compliant, 4 (~6%) administrative non-compliance and one (~2%) not able to be verified.

#### Audit finding across the consent schedules

Compliance Performance	Project Consent
Compliant	49
Not verified	1
Non-compliant	2
Administrative non-compliance	4
Not triggered <sup>1</sup>	20
Observation	4
Note	1

<sup>1</sup> Conditions considered to have not been triggered are not included in the total compliance percentage

## Compliance with the Environmental Protection Licence

The overall audit findings against the conditions in each section of the EPL are presented below. Of the 35 'applicable' conditions, 22 (63%) were found to be compliant, one (3%) non-compliant, one (3%) administrative non-compliance and 11 (31%) were not able to be verified at the time of audit.

### Audit finding across the EPL conditions

Compliance Performance	EPL 13088
Compliant	22
Not verified	11
Non-compliant	1
Administrative non-compliance	1
Not triggered	0
Observation	0
Note	0

## Observations and opportunities for improvement

A total of 16 opportunities to promote improvement in terms of regulatory compliance and environmental performance have been presented for Boral's consideration and action.

## Overall summary of environmental performance

The overall environmental performance of Peppertree Hard Rock Quarry is considered to be satisfactory, based on the compliance / non-compliance findings, observed condition of the site, relatively low number of incidences and exceedances, and the limited community complaints.

The auditor has observed improvements in environmental performance on the project since the previous audit in October 2015. The environmental management plans and procedures used on the Site are up to date and generally fit for purpose. In addition, a range of formalised checking and inspection programs have been implemented on the Site. These are expected to contribute to improved performance provided the information is promptly assessed and used to inform environmental management.

Boral are open to continual improvement and possess a high level of commitment to environmental management. Boral's accredited EMS is being effectively implemented on site to drive continual environmental performance improvements with a number of best practice initiatives being undertaken include the use of citrus based dust suppression polymers and the proposed implementation of continuous environmental monitoring and waste management plans.

However, a number of issues are ongoing, including some from the previous audit that should be promptly resolved to ensure the site maintains a high level of compliance and that risks are managed effectively in accordance with the Conditions of Approval and EPL.

# 1 INTRODUCTION

## 1.1 Background

The Peppertree Quarry (the Project) (formerly known as ‘Marulan South Quarry’), owned and operated by Boral Resources (NSW) Pty Ltd is located at Marulan South Road, Marulan, approximately 10 km southeast of Marulan in the Goulburn Mulwaree local government area. The quarry extracts hard rock known as granodiorite to make a range of aggregates which are transported by train for use in the Sydney metropolitan market.

An Environmental Assessment Report (Marulan South Quarry Environmental Assessment Report, Volumes 1, dated October 2006) was prepared by Environmental Resources Management Australia to the Project to support a Development Application (DA 06\_0074). Ministerial consent was granted on 02 February 2007. The consent allows Boral to transport up to 3.5 million tonnes of product in a year (Mtpa) from the site by rail.

Since the consent was issued, there have been four approved modifications (with conditions), as detailed below:

- Modification 1 – March 2009
- Modification 2 – November 2011
- Modification 3 - October 2012.
- Modification 4 – August 2016

The most recent version of the Project Approval is presented in Appendix A.

Schedule 5, Condition 5 of the original consent includes a requirement to ‘commission an Independent Environmental Audit within 3 years of the date of the commencement of construction, and every 5 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the project’. The commencement of construction was June 2012, therefore Boral was required to commission an Independent Audit no later than June 2015. Changes to the conditions of consent with approved Modification 4 have since altered the audit frequency to every 3 years. This audit constitutes the 2018 audit. Based on the conditions of consent, Boral will be required to commission the next audit by 2021.

An overview of how this audit addresses the applicable Modified Ministers Conditions of Approval (MCoA) audit requirements is outlined in Table 1-1.

*Table 1-1 Independent Audit CoA Compliance Requirements - DA 06\_0074*

Condition of Approval	Condition Requirements	Where addressed in this document
<b>Independent Environmental Audit</b>		
5(11)	Within 3 years of the date of the commencement of construction and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:	This report

Condition of Approval	Condition Requirements	Where addressed in this document
	(a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;	Section 2.2
	(b) include consultation with the relevant agencies and the CCC;	Section 3.2
	(c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL or necessary water licence for the project (including any assessment, strategy, plan or program required under these approvals);	Section 3.1.1
	(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;	Section 3
	(e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and	Section 3.6
	(f) be conducted and reported to the satisfaction of the Secretary.	Section 4

## 1.2 Audit Scope

This audit investigates the operation's compliance with applicable regulatory conditions and requirements outlined in Schedule 5 Condition 5 of the Project Approval. The audit seeks to broadly assess the environmental performance of the operation and adequacy of strategies, plans and programs required under the project approval. Feedback from relevant regulatory agencies will also be considered over the audit timeframe. This audit recommends appropriate measures and actions to be undertaken by Boral Resources to improve the environmental performance of the operation.

This audit was undertaken between September 2018 and December 2018 and was spatially limited by the boundaries of the project consent 06\_0074, as depicted in Appendix 2 of the Project Approval Modification 4.

## 1.2.1 Audit Criteria

Audit criteria have been derived from the following sources:

- The project approval 06\_0074 Mod 4:
  - Schedule 2: Administrative Conditions
  - Schedule 3: Environmental Performance Conditions
  - Schedule 4: Additional Procedures
  - Schedule 5: Environmental Management, Reporting and Auditing
- Environmental Protection Licence (EPL) No. 13088;
- Environmental Impact Statement (EIS) Marulan South Quarry Environmental Assessment Report, Volumes 1 (ERM, 2006);
- Environmental Management Plans, procedures, and assessments, including:
  - Aboriginal Heritage Management Plan;
  - Air Quality Management Plan;
  - Biodiversity and Rehabilitation Management Plan;
  - Noise Management Plan;
  - Traffic Management Plan; and
  - Water Management Plan.
- Recommendations from previous audits:
  - Department of Planning and Environmental (DP&E) Compliance Audit reports dated August 2015;
  - Independent Environmental Audit (IEA) reports, prepared by Arcadis and dated August 2015.

Items of concern to regulatory agencies, determined during the agency consultation undertaken as part of this audit with:

- Department of Planning and Environment (DP&E);
- The NSW Environment Protection Agency (EPA);
- Department of Primary Industries (DPI)
- Office of Environment and Heritage (OEH)
- Community Consultation Committee (CCC)
- Roads and Maritime Services (RMS)
- Goulbourn Mulwaree Council

## 1.2.2 Audit Timeframe

Based on the audit conditions in the consent, the required audit schedule for the Peppertree Quarry is presented in Table 1-2. Delay in commencement of the scheduled audit is the result of delays in the commissioning process. Regardless, the audit will cover activities undertaken within the audit timeframe as specified within the condition.

Table 1-2 Audit Schedule for Peppertree Quarry

Audit Number	Frequency	Due date	Date issued
First Audit	Within 3 years of commencement of construction	June 2015	October 2015
Second Audit	Every 3 years thereafter	June 2018	This Report

### 1.3 Limitations

This report has been developed using scientific principles and professional judgement. The outcomes of the report are based on the facts and findings developed from existing documentation reviewed and circumstances prevailing at the time this audit was conducted. The report cannot and, and makes no attempt to, anticipate all changes to those conditions which may occur after its date of issue.

## 2 AUDIT METHODOLOGY

### 2.1 Approach

This audit has been undertaken in line with the principles and process of *AS/NZS 19011:20014 Guidelines for quality and/or environmental management systems audit* and the *Independent Environmental Audit Guideline*, (NSW Government, 2015) in accordance with DP&E correspondence on 26 September 2018. An overview of the approach to be applied in undertaking this audit is presented below.



Figure 1 Overview of the audit process

The methods used to collect information and evidence included:

- Document reviews
- Interviews
- Observation of activities and visual site verification.

A site visit was conducted to undertake interviews, verification processes and on-site inspection on the 20<sup>th</sup> November 2018.

## 2.2 Audit team

Schedule 5, Condition 11 of the Modified Project Approval specifies that the Independent Environmental Audit must:

*(a) be conducted by a suitably qualified, experienced and independent person(s) whose appointment has been approved by the Secretary;*

This Independent Environmental Audit was undertaken on the 20<sup>th</sup> November 2018 and was conducted by Exemplar Global certified auditors:

- Brad Searle – Lead Environmental Auditor (Certificate No: 113169), Business Lead, Environment
- Sean Fishwick – Environmental consultant

A letter of endorsement of the audit team was provided by Planning and Infrastructure, dated 26<sup>th</sup> September 2018 (Appendix F). None of the team engaged for this audit have had any previous involvement with the Peppertree Quarry.

## 2.3 Agency and Stakeholder Consultation

Arcadis consulted with key regulatory agencies (DP&E, EPA, DPI Water, Water NSW, Goulburn Mulwaree Council) throughout the audit, such that any areas of concern could be addressed in the audit. Correspondence with agencies from which a response was received is included in Appendix C and is summarised in Section 3.3.

## 2.4 Actions from Previous Audits

Arcadis has reviewed the findings from two previous audits:

- 2016 DP&E Compliance Audit (Boral Peppertree Quarry Compliance Audit)
- 2015 Independent Environmental Audit prepared by Arcadis (Boral Resources (NSW) Pty Ltd Peppertree Quarry Environmental Audit).

There were 3 and 15 recommendations made by each report respectively. These are reproduced in Appendix E. Arcadis has assessed the extent to which these recommendations have been implemented and have provided responses to each detailed in Appendix E.

## 2.5 Document Review

During the audit, Arcadis reviewed project documentation to adequately assess the environmental performance of the operation.

These documents include:

- the project EIS
- previous audit reports



- strategies, plans and programs prepared for the management of Peppertree Quarry
- annual environmental reports
- monitoring outputs and reports
- communications between Boral and government agencies
- recommended and relevant best practice Standards and guidelines.

## 2.6 Interviews

These were conducted with relevant staff from Boral. Interviewees are listed below.

- Sharon Makin (Stakeholder and Environmental Advisor)
- Angus Shedden (Quarry Manager)

## 2.7 Assessment Terminology

The following terminology has been applied in assessing compliance with the requirements of the Project Approval and EPL, reviewing the actions implemented in response to the previous audit and assessing the effectiveness and adequacy of strategies, plans and programs.

*Table 2-1 Audit Assessment Terminology*

Assessment	Definition
Compliant	Sufficient verifiable evidence collected to demonstrate that the intent and all elements of the requirements of the regulatory approval have been complied with within the scope of the audit
Not verified	Sufficient verifiable evidence could not be collected to demonstrate that the intent and all elements of the requirements of the regulatory approval have been complied with within the scope of the audit
Non-compliant	Sufficient verifiable evidence collected to demonstrate that the intent of one or more specific elements of the regulatory approval have not been complied with within the scope of the audit
Administrative non-compliance	A technical non-compliance with a regulatory approval that would not impact on performance and that is considered minor in nature (e.g. report submitted but not on the due date, failed monitor or late monitoring session)
Not triggered	A regulatory approval requirement has an activation or timing trigger that had not been met at the time of the audit inspection, therefore a determination of compliance could not be made

Assessment	Definition
Observation	Observations are recorded where the audit identified issues of concern which do not strictly relate to the scope of the audit or assessment of compliance. Further observations are considered to be indicators of potential non-compliances or areas where performance may be improved
Note	A statement or fact, where no assessment of compliance is required
Terminology for actions in response to previous audits	
Complete	Non-compliances and recommendations from the previous 2016 DP&E audit have been addressed and finalised and are sufficient to manage risks.
Incomplete	Non-compliances and recommendations from the previous 2016 DP&E audit have not been have been finalised or are insufficient to manage risks.

To maintain consistency with the Independent Environmental Audit Guideline (NSW Government, 2015) the category 'Observation' has used as an area where performance may be improved (often referred to as an opportunity for improvement). Observations are not considered by this audit to be non-compliances but are situations where performance could be improved. Hence recommended actions are provided for each Observation. Recommendations made by this IEA are suggested actions that are considered likely to improve environmental performance or minimise the risk of future non-compliance. Observations have been numbered, e.g. **PQ** (recommendation number)/18.

## 2.8 Audit Response and Close-out

To promote a timely and appropriate response to the 'opportunities for improvement' (observations) identified through the audit, Boral was provided with the option of providing a response and evidence of implementation of actions prior to close-out. These audit responses are also presented in the compliance assessment tables, along with evidence or statements of commitment for implementing the response. Where the response is deemed sufficient to close-out the audit finding an assessment of satisfactory and complete has been provided in parentheses.

## 3 AUDIT FINDINGS

### 3.1 Recommendations from Previous Audits

#### 3.1.1 2016 DP&E Compliance Audit Close Out

The DP&E report, Boral Peppertree Quarry Compliance Audit December 2016 (NSW Department of Planning & Environment, 2016) identified 3 recommendations arising from the December 2016 audit.

The status of the 3 recommendations associated with the non-compliance issues identified in the December 2016 DP&E Audit are as follows:

- Complete: 2
- Incomplete: 1

Details on the status of each recommendation are provided in Appendix E.

#### 3.1.2 2015 Independent Environmental Audit Close Out

The 2015 Arcadis audit identified 15 recommendations. The status of the 15 recommendations associated with the non-compliance issues identified in the Arcadis 2015 Audit are as follows:

- Complete: 12
- Incomplete: 3

Details on the status of each recommendation are provided in Appendix E.

### 3.2 Summary of Compliance

A summary of compliance against audit criteria is presented in the following sections. Compliance has been summarised using the following categories as described in Section 2.7:

- Compliant
- Non-compliant
- Observation
- Not verified
- Not triggered
- Noted
- No finding

#### 3.2.1 Project Consent

Arcadis assessed compliance with respect to regulatory obligations, contained within the Project Approval 06\_0074.

The consent conditions assessed as being non-compliant relate to the following issues:

- Waste management and recording

The consent conditions assessed as being administrative non-compliances relate to the following issues:

- Continuous improvement and the investigation of issues relating to best practice
- Reporting of surface water flow data
- Provision of annual production data.

A summary of the compliance with respect to the project consent obligations is presented in Table 3-1. The overall audit findings against the conditions in each schedule of the consent are presented below. Of the 61 'applicable' conditions, 49 (80%) were found to be compliant, 3 (3%) non-compliant, 4 (~6%) administrative non-compliance and one (~2%) not able to be verified. A detailed breakdown and discussion of the compliance status with respect to each condition of the Project Consent is provided in Appendix D.

Table 3-1 Compliance Summary - Project Consent 06\_0074

Compliance Performance	Project Consent
Compliant	49
Not verified	1
Non-compliant	2
Administrative non-compliance	4
Not triggered <sup>2</sup>	20
Observation	4
Note	1

### 3.2.2 Environmental Protection Licences

Environment Protection Licence information was sourced from the NSW Environment Protection (EPA) website

(<http://www.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=13088&id=13088&option=licence&searchrange=licence&range=POEO licence&prp=no&status=Issued>). Boral Peppertree Quarry operates under Environment Protection Licence (EPL) No.13088, which was created following a POEO Licence transfer application received on the 14/02/2011. Since its issue the EPL has been subject to one variation, with the current licence presented in Appendix B. For the purpose of this audit, EPL compliance was assessed for the period 2015 - 2018.

A summary of the compliance with respect to the EPL obligations is presented in Table 5. A detailed breakdown and discussion of the compliance status with respect to each condition of the EPL is provided in Appendix D.

One non-compliance, which relates to the unintentional release of sediment from a scalps stockpile, was identified through the audit. During a heavy rainfall event a portion of the scalps stockpile and noise bund was eroded resulting in some of this eroded material entering Tangarang Creek upstream of the weir. This issue has since been resolved to the satisfaction of the EPA. The administrative non-compliances relate to ensuring the website for the project is relevant and up to date.

The overall audit findings against the conditions in each section of the EPL are presented below. Of the 35 'applicable' conditions, 22 (63%) were found to be

<sup>2</sup> Conditions considered to have not been triggered are not included in the total compliance percentage

compliant, one (3%) non-compliant, one (3%) administrative non-compliant and 11 (31%) were not able to be verified at the time of audit.

Table 3-2 Compliance Summary - EPLs

Compliance Performance	EPL 13088
Compliant	22
Not verified	11
Non-compliant	1
Administrative non-compliance	1
Not triggered	0
Observation	0
Note	0

### 3.3 Government Agency and Stakeholder Consultation

Arcadis consulted with key regulatory agencies (Department of Planning and Environment (DP&E), Environmental Protection Authority (EPA), Department of Industry (DI), Department of Primary Industries (DPI) Water, Water NSW, Goulburn Mulwaree Council) throughout the audit, such that any areas of concern could be addressed in the audit. Key issues identified are summarised in Table 3-3. These issues have been included for consideration throughout the audit.

Table 3-3 Stakeholder issue summary

Stakeholder	Summary of issues	Section where addressed
DP&E	The Department would specifically like you to pay attention to noise management during the site audit.	Appendix D, Schedule 3, Conditions 2 – 11A
EPA	We are satisfied that the scope adequately covers the areas of concern for the EPA with regard to the Peppertree Quarry, notably the inclusion of compliance with the conditions within EPL 13088. We would also expect a thorough review of project compliance with noise related conditions and those related to air quality.	Appendix D, Schedule 3, Conditions 17 – 20
DPI Water	The audit should appropriately review the site water balance in accordance with the relevant consent condition/water management plan to ensure that all water take and water use of both surface and groundwater sources by Peppertree, is appropriately measured, accounted for and authorised where required.	Appendix D, Schedule 3, Conditions 22 – 30B
Water NSW	Water NSW requests that Arcadis assess the following:	1 – 3: Appendix D, Table A-1, Schedule 3, Conditions 22 – 30B

Stakeholder	Summary of issues	Section where addressed
	<ol style="list-style-type: none"> <li>1. Implementation and adequateness of the Water Management Plan.</li> <li>2. Performance of the water quality control measures aimed at preventing sediment laden water from exiting the site. This should include an assessment as to whether the “dirty water” dams are designed, constructed and maintained to accommodate a 1 in 100-year ARI 24-hour event.</li> <li>3. Performance of the systems managing human wastewater.</li> <li>4. Implementation and adequateness of the Biodiversity and Rehabilitation Management Plan.</li> <li>5. Implementation of adaptive management measures required to address water quality (if any are required).</li> <li>6. Compliance with the water related requirements of the EPL and any requirements pursuant to the Water Management Act 2000.</li> </ol>	<ol style="list-style-type: none"> <li>4.</li> <li>5. Appendix D, Table A-1, Schedule 3, Conditions 22 – 30B</li> <li>6. Appendix D Table A-2</li> </ol>

### 3.4 Environmental Performance Summary

Overall environmental compliance on the project has been assessed at 85% compliance with applicable conditions. Compliance percentage has been calculated by comparing the percentage of compliant conditions against applicable conditions. Conditions that have been excluded from this calculation include those identified as ‘N/A’, ‘Not verified’ and ‘Not Triggered’. Observations and notes have been considered to be compliant.

The most relevant environmental considerations for the site as identified through the audit are as follows:

- Noise
- Air quality
- Water management
- Waste management
- Incident reporting.

#### Noise

Noise was raised by both the EPA and DP&E as key area of focus during the audit consultation process.

A review of relevant conditions relating to noise and vibration within the MCoA and the EPL indicate that the site was generally operating within regulatory limits during the audit period. It was identified during scheduled noise monitoring that potential noise measurements above criteria specified in Schedule 3 Condition 4 of the MCoA were occurring at a residential receiver. Exceedances were reported to DP&E and the consultancy ERM was commissioned to conduct monitoring to identify the source of exceedances. ERM identified that the exceedances occurred in the early morning. Todoroski Air Sciences (TAS) was then engaged to review weather conditions at the

time exceedances were recorded, TAS identified that most exceedances did not occur during inversion conditions (as defined in Appendix 7 of the Consolidated Project Approval). However, they did occur during non-standard weather events.

A penalty notice was issued by DP&E relating to the event for the exceedance of criteria as specified in the MCoA. Boral appealed the penalty on the grounds that the CoA Schedule 3, Condition 4 states that noise generated by the development is to be measured in accordance with the relevant requirements of the Industrial Noise Policy (INP). Section 11.1.3 of the INP states that exceedances of criteria are not a non-compliance with a consent when 'the noise was increased by extreme, non-standard weather effects'. As identified by TAS, the measurement above criteria occurred during a non-standard weather event. Upon review DP&E revoked the penalty notice and issued an official caution as well as a requirement to commence a voluntary undertaking to avoid ongoing breaches of approval.

A voluntary undertaking to investigate exceedances has been completed by Boral and identified management measures have been implemented. The noise assessment undertaken as part of the voluntary undertaking was prepared by ERM in October 2017. Outcomes included applying noise dampening 'curtains' to the primary bin (which has since been implemented, as observed during the site visit), and the implementation of real time noise monitoring which is proposed to be implemented.

This incident demonstrates a high level of environmental performance relating to the management of noise and a commitment to continual improvement.

### Air quality

Ongoing measurements above criteria have occurred relating to the 24hr short PM<sub>10</sub> and dust deposition criteria. However, the auditor notes that the PM<sub>10</sub> measurements are only above criteria at the monitoring location, not necessarily the receiver location as specified in the condition.

Measurements above criteria across the audit period for 24-hr short term PM<sub>10</sub> criteria were compared to wind direction and location of active quarry operations at the time of measurement. Based on this the measurements were not considered to be representative of the quarry activities over the time period and as such did not represent a non-compliance in accordance with Schedule 3 Condition 17 of the MCoA.

To understand exceedances related to dust deposition, Boral undertook a review of dust deposition gauges data for the last three years to identify the root cause of non-compliances (through Todoroski Air Sciences). They found that higher than usual levels have occurred during the Spring and Summer months for EPL monitoring location D1. In most cases, these are also associated with low levels of ash and therefore high levels of organics. The organic matter is primarily bird related and therefore exceedances are thought to not be related to quarry activities.

In addition, air quality monitors are located within Boral's property boundary. To confirm exceedances were not occurring at the locations specified in the condition (at a residential receiver or on >25% of privately owned land), Todoroski Air Sciences was engaged to extrapolate the measures by modelling the data to these locations. When exceedances are modelled to receiver locations as specified in the condition, the dust deposition levels are found to be below criteria. As such, they are not considered to be an exceedance of the criteria as defined in the MCoA.

Todoroski Air Sciences have been engaged to undertake modelling of monthly air quality data to confirm that levels at the locations specified in the MCoA are not being exceeded.

The audit recommends that discussions are undertaken with EPA and DP&E regarding potential relocation of these monitoring points to a more representative area

that aligns with the requirements of the MCoA. Alternatively, this condition of consent may require modification to align with the current arrangement and ensure that it can be implemented.

A review of relevant conditions relating to air quality within the MCoA and the EPL indicate that the site was within regulatory limits during the audit period for the majority of the time. Boral's actions relating to potential exceedances demonstrate a commitment to investigating and resolving potential environmental performance issues.

### Water management

Water management has been identified by DPI Water and Water NSW as a key issue of concern during the audit. The audit found that during the audit period the site was generally compliant with regulatory obligations within the MCoA and the EPL. During the audit period one exceedance was identified. During a heavy rainfall event a portion of the scalps stockpile and noise bund was eroded resulting in some of this eroded material entering Tangarang Creek upstream of the weir. Following the event, the sites Pollution Incident Response Management Plan was implemented, and the incident was reported to EPA and DP&E. EPA investigation of the incident noted that whilst Boral cooperated with the investigation and undertook appropriate voluntary clean-up and rehabilitation actions immediately following the event, issuing a penalty notice was still appropriate. Following this event Boral undertook a review and update of their management plans and procedures to prevent recurrence of the event.

With recent drought conditions, water management has become a key issue as the site needs to ensure there are adequate supplies for continued operations. A drought plan has been developed and is being implemented on the site to address this issue.

With the exception of this event, which Arcadis determine to have been suitably addressed, water management at the site is considered to be suitable and compliant with the MCoA and the EPL

### Waste management

A review of recommendations from previous audits has identified waste management as an ongoing issue. Boral do not currently have a waste management plan or documentation for the site guiding performance relating to this environmental aspect and there is currently no formalised system in place to monitor and record waste generation in accordance with the MCoA (Schedule 3, Condition 41). Additionally, it was observed onsite that general waste was potentially not being disposed of correctly (e.g. non-recyclables within the recycling bin). Arcadis understand that Boral is in the process of developing a waste management plan. Boral should complete and implement this plan, including a formal system for monitoring waste generation and collection in accordance with the MCoA to ensure effective management of waste at the site and avoid further non-compliances. Ideally, some of these requirements could be passed onto waste management contractors operating on the site.

## 3.5 Environmental Risk

Arcadis qualitatively evaluated the risk posed by each of the non-compliances identified by this audit, consistent with the Independent Environmental Audit Guideline (NSW Government, 2015).

All risks associated with non-compliances were low risk in nature i.e. no medium or high-risk issues were identified. The risks and associated values are listed below:

- Administrative non-compliance – 5 incidences
- 'Low' risk level – 3



- 'Medium risk level – 0
- 'High' risk level – 0

A detailed comment on each of these non-compliances is presented in Appendix D.

This is a qualitative assessment which has not been made in accordance with the risk assessment methodology of the Independent Environmental Audit guideline (NSW Government, 2015).

Administrative non-compliances specifically related to the following incidents:

- Noise and blasting management plan not fully meeting the conditions (MCoA, Schedule 3, Condition 9) as it has not been updated to reflect recent changes on-site including mitigation measures and changes to monitoring.
- Air quality management plan not fully meeting the conditions (MCoA, Schedule 3, Condition 19) as it does not contain a sufficiently detailed commitment to continual improvement and best practice.
- Reporting of surface water monitoring data is not occurring in accordance with the condition of approval (MCoA, Schedule 3, Condition 29). Specifically, baseline flow data collected by Marulan South is not included within WMP.
- Non-reporting of production data to DRE in accordance with the condition (MCoA, Schedule 3, Condition 46).
- The project website not clearly identifying the complaints line.

Low risk level non-compliances related to the following incidents:

- Waste management plan or document and a formal system to monitor waste generating and disposal not being present / implemented.
- Incorrect storage of waste on site
- Unintentional release of sediment to Tangarang Creek.

### 3.6 Adequacy of Existing Plans and Procedures

Arcadis assessed compliance and against conditions specific to the preparation of management plans.

Arcadis has undertaken a high-level review of all strategies, plans or programs required under the project approval (DA 06\_0074), including:

- Noise Management Plan
- Blast Monitoring Program
- Air Quality Management Plan
- Water Management Plan
- Erosion and Sediment Control Plan
- Surface Water Monitoring Program
- Ground Water Monitoring Program
- Aboriginal Heritage Management Plan
- Biodiversity and Rehabilitation Management Plan
- Environmental Management Strategy.

Arcadis has evaluated the adequacy of these plans with respect to the Management Plan Requirements detailed in the Schedule 5, Condition 2 of the project consent. In summary Arcadis is of the opinion that in general the major components required of

each plan were present and the plans were fit for purpose. The results of this analysis including any recommendations are included in Appendix D.

Arcadis are of the opinion that the plans generally contained all major components and the plans were fit for purpose. However, plans that require updates have been identified in below.

Table 3-4 Environmental management plans requiring update

Plan	Relevant condition	Audit finding	Recommendation
Noise and blasting management plan (NBMP)	COA, Schedule 3, Condition 9	The NBMP generally meets the criteria as outlined in this condition. However, the plan does not include a section on best practice (as referenced in the condition).	The NBMP should be updated to include a section on best practice and how activities are reviewed to ensure they align with current best practice.
Noise and blasting management plan (NBMP)	COA, Schedule 3, Condition 10	<p>Evidence of DP&amp;E approval for the NBMP has been sighted. The NBMP has been updated in March 2018.</p> <p>The NBMP has been developed in compliance with the condition and adequately addresses all assessment criteria. However, the following observations have been made:</p> <ul style="list-style-type: none"> <li>• The plan does not reflect the recent changes to noise mitigation brought about from the Voluntary Undertaking.</li> <li>• A number of references are still made to activities that are to be completed in 2017.</li> <li>• Table 2 in the plan references the incorrect condition.</li> </ul>	<ul style="list-style-type: none"> <li>• The plan should be updated to reflect the recent changes to noise mitigation brought about from the Voluntary Undertaking.</li> <li>• It is recommended that when the Noise Management Plan is next updated, all dated references are checked and updated / removed where relevant.</li> <li>• Table 2 in the plan should be updated to reference the correct condition.</li> </ul>
Air Quality Management Plan (AQMP)	COA, Schedule 3, Condition 19	The AQMP generally meets the criteria as outlined in this condition. Some best management practice measures that have been implemented including the use of weather zone forecasting system for wind to identify high risk days and the application of citrus based dust suppression	The AQMP should be updated to include a section on best practice and how activities are reviewed to ensure they align with current best practice. An investigation of best practice relating to air quality at similar facilities should be undertaken to understand the feasibility and value of implementing best practice systems (e.g. continuous air quality monitoring).

Plan	Relevant condition	Audit finding	Recommendation
		<p>polymers to exposed areas.</p> <p>However, the plan has not been kept up to date with current best practice in relation to air quality monitoring.</p>	

### 3.7 Observations and Improvement Opportunities

The following table summarises the observations and any associated recommendations / opportunities for improvement, in terms of performance and compliance, arising from this audit. Outstanding issues / recommendations from previous audits that still require a resolution have also been identified.

Table 3-5 Summary of opportunities for improvement

No.	Condition / recommendation #	Issue / observation	Recommendation
PQ 1/18	COA, Schedule 3, Condition 9	<p>The NBMP generally meets the criteria as outlined in this condition. However, the plan does not include a section on best practice (as referenced in the condition).</p>	<p>The NBMP should be updated to include a section on best practice and how activities are reviewed to ensure they align with current best practice.</p>
PQ 2/18	COA, Schedule 3, Condition 10	<p>The NBMP has been developed in compliance with the condition and adequately addresses all assessment criteria.</p> <p>However, the following observations have been made:</p> <ul style="list-style-type: none"> <li>· The plan does not reflect the recent changes to noise mitigation brought about from the Voluntary Undertaking.</li> <li>· A number of references are still made to activities that are to be completed in 2017.</li> <li>· Table 2 in the plan references the incorrect condition.</li> </ul>	<ul style="list-style-type: none"> <li>• The plan should be updated to reflect the recent changes to noise mitigation brought about from the Voluntary Undertaking.</li> <li>• It is recommended that when the Noise Management Plan is next updated, all dated references are checked and updated / removed where relevant.</li> <li>• Table 2 in the plan should be updated to reference the correct condition.</li> </ul>

No.	Condition / recommendation #	Issue / observation	Recommendation
PQ 3/18	COA, Schedule 3, Condition 17	<p>Boral undertook a review of dust deposition gauges for the last three years to identify the root cause of non-compliances (through Todoroski Air Sciences). They found that higher than usual levels have occurred during the Spring and Summer months for EPL monitoring location D1. In most cases, these are also associated with low levels of ash and therefore high levels of organics. The organic matter is primarily bird related.</p> <p>Air quality monitors are located within Boral's property boundary. When exceedances are modelled to receiver locations as specified in this condition i.e. 'at any residence on privately owned land, or on more than 25 percent of any privately-owned land' the dust deposition levels are found to be below criteria.</p>	<p>It is recommended that discussions with EPA and DP&amp;E are continued regarding the relocation of these monitoring points to as more representative area that aligns with the requirements of the MCoA. Alternatively, this condition of consent may require modification to align with the current arrangement to ensure that it can be implemented effectively.</p>
PQ 4/18	COA, Schedule 3, Condition 19	<p>The AQMP generally meets the criteria as outlined in this condition. Some best management practice measures that have been implemented including the use of weather zone forecasting system for wind to identify high risk days and the application of citrus based dust suppression polymers to exposed areas.</p> <p>However, the plan has not been kept up to date with current best practice in relation to air quality monitoring.</p>	<p>The AQMP should be updated to include a section on best practice and how activities are reviewed to ensure they align with current best practice.</p> <p>An investigation of best practice relating to air quality at similar facilities should be undertaken to understand the feasibility and value of implementing best practice systems (e.g. continuous air quality monitoring).</p>
PQ 5/18	COA, Schedule 3, Condition 29	<p>Water <i>quality</i> monitoring occurs within Tangarang Creek and Barbers Creek. Water <i>flow</i> monitoring occurs within Tangarang Creek. Peppertree does not undertake water <i>flow</i></p>	<p>It is recommended that discussions are held with DP&amp;E regarding modification of this condition to facilitate practical implementation.</p>

No.	Condition / recommendation #	Issue / observation	Recommendation
		<p>monitoring does not occur within Barbers Creek. This is a result of Barbers Creek being inaccessible and unsuitable for installation of flow monitoring equipment.</p>	
PQ 6/18	COA, Schedule 3, Condition 41	<p>As flagged within the 2015 Audit and the DP&amp;E 2016 audit. Since these audits the waste management provider has been changed. Veolia is now the primary provider, Fast Skips – steel and Endeavour Industries collects office waste. However, no evidence was sighted that recommendations from the previous audit have been implemented. No formal waste management plan or document is in place to support the implementation of reasonable and feasible measures to minimise waste generated by the project. Arcadis understand that a plan is being developed by Boral.</p>	<p>Boral should establish a clear procedure around monitoring and recording waste generation. It is recommended that the waste contractors are engaged to assist with this process.</p>
PQ 7/18	COA, Schedule 3, Condition 42	<p>During the site visit it was observed that Veolia bins on site were not being utilised for the marked waste types. I.e. bins marked for recycling not receiving recyclable materials</p>	<p>As above</p>
PQ 8/18	COA, Schedule 3, Condition 46	<p>Production data is provided within the AEMR. However, no evidence has been sighted of this data being provided to DRE.</p>	<p>Production data should be provided to DRE using the standard form for that purpose in accordance with the requirements of the condition</p>
PQ 10/18	COA, Schedule 5, Condition 9	<p>Environmental performance data is not located on Boral Peppertree's specific web page but on the Boral website. The website is difficult to navigate to find the relevant information.</p>	<p>The web page should be redesigned to be easier to navigate. Information on the page could benefit from being aligned to this condition of approval (at a high level) so information is easier to find.</p>

No.	Condition / recommendation #	Issue / observation	Recommendation
PQ 12/18	EPL, M5.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint. Contact line is available, but it is not clear on the website that this a line that can be used for complaints. However, it is noted that the complaints hotline is included in the local newsletter.	The website should be updated to clearly identify the telephone number through which complaints can be made.
<b>Outstanding recommendations from 2016 DP&amp;E Audit</b>			
PQ 13/18	COA, Schedule 3, condition 41 (a)	Waste management review to be undertaken and procedures to be put in place for management, including data collection and analysis. Procedures to be in place by July 2017	Boral should establish a clear procedure around monitoring and recording waste generation. It is recommended that the waste contractors are engaged to assist with this process. Arcadis understands that a waste management plan is being developed by Boral.
<b>Outstanding recommendations from 2015 IEA</b>			
PQ 14/18	PQ 6/15	Peppertree Quarry website is difficult to navigate, and it is unclear if the data on the website meets all requirements under the conditions of consent.	It is recommended that the website be redesigned to present the required data more clearly. Peppertree Quarry could be separated from the Marulan South Limestone Mine page to avoid confusion.  It is recommended that headings are aligned to those in the MCoA to make navigating the site easier.
PQ 15/18	PQ 9/15	Boral does not appear to be tracking waste or identifying areas of further improvement. Boral identified that the primary waste contractor has recently changed and this data is now being collected.	It is recommended that Boral engage with waste contractors to track waste with the aim of implementing and monitoring waste minimisation strategies.

## 4 CONCLUSIONS

Arcadis undertook an Independent Environmental Audit at the Peppertree (Marulan South) Quarry site on 21<sup>st</sup> of November 2018. This Audit found the project to have variable levels of compliance against different sources of regulatory obligations. Conditions that have been excluded from this calculation include those identified as 'N/A', 'Not verified' and 'Not Triggered'. Observations and notes have been considered to be compliant:

- 90% compliance with project consent conditions;
- 92% compliance with EPL No.13088 conditions;
- 66% compliance with adoption of previous DP&E audit recommendations
- 80% compliance with adoption of previous IEA audit recommendations.

The audit covered the period between 2015 and 2018. Consistent with the existing project consent a follow up IEA will be required for the Site in 2021.





Boral Resources (NSW) Pty Ltd

## **APPENDIX A**

### **Development Consent (modification 4)**

# Project Approval

## Section 75J of the *Environmental Planning & Assessment Act 1979*

I, the Minister for Planning approve the project referred to in schedule 1, subject to the conditions set out in schedules 2 to 5.

The reason for these conditions is to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the on-going environmental management of the project.

Frank Sartor MP  
**Minister for Planning**

Sydney

2007

File No. 9040608

---

### SCHEDULE 1

<b>Project Application:</b>	06_0074
<b>Proponent:</b>	Boral Resources (NSW) Pty Ltd
<b>Approval Authority:</b>	Minister for Planning
<b>Land:</b>	See Appendix 1
<b>Project:</b>	Marulan South hard rock quarry and associated infrastructure

**Red type represents March 2009 Modification**  
**Blue type represents November 2011 Modification**  
**Green type represents October 2012 Modification**  
**Purple type represents August 2016 Modification**

## TABLE OF CONTENTS

<b>DEFINITIONS</b>	<b>3</b>
<b>ADMINISTRATIVE CONDITIONS</b>	<b>5</b>
Obligation to Minimise Harm to the Environment	5
Terms of Approval	5
Limits on Approval	5
Structural Adequacy	5
Demolition	5
Protection of Public Infrastructure	5
Operation of Plant and Equipment	5
<b>SPECIFIC ENVIRONMENTAL CONDITIONS</b>	<b>7</b>
General Extraction and Processing Provisions	7
Noise	7
Blasting and Vibration	9
Air Quality	10
Meteorological Monitoring	10
Surface and Ground Water	11
Traffic and Transport	13
Aboriginal Heritage	13
Biodiversity and Rehabilitation	13
Visual Impact	15
Waste Management	15
Emergency and Hazards Management	15
Production Data	16
Quarry Exit Strategy	16
<b>ADDITIONAL PROCEDURES</b>	<b>17</b>
Notification of Landowners	17
Independent Review	17
Land Acquisition	17
<b>ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING</b>	<b>19</b>
Environmental Management	19
Community Consultative Committee	20
Reporting	21
Access to Information	21
<b>APPENDIX 1: SCHEDULE OF LAND</b>	<b>23</b>
<b>APPENDIX 2: PROJECT LAYOUT</b>	<b>24</b>
<b>APPENDIX 3: NOISE RECEIVER LOCATIONS</b>	<b>25</b>
<b>APPENDIX 4: SURFACE WATER MANAGEMENT SYSTEM FOR THE SOUTHERN OVERBURDEN     EMPLACEMENT AREA</b>	<b>26</b>
<b>APPENDIX 5: HABITAT MANAGEMENT AREA</b>	<b>27</b>
<b>APPENDIX 6: BIODIVERSITY OFFSET AREA</b>	<b>28</b>
<b>APPENDIX 7: NOISE COMPLIANCE ASSESSMENT</b>	<b>29</b>

## DEFINITIONS

Annual Review	The review required by condition 10 of Schedule 5
BCA	Building Code of Australia
CCC	Community Consultative Committee
Council	Goulburn Mulwaree Council
Department	Department of Planning and Environment
DPI Water	Department of Primary Industries - Water
DRE	Division of Resources and Energy, within the NSW Department of Industry
EA	Environmental Assessment for the project titled <i>Marulan South Quarry Environmental Assessment Report</i> Volumes 1 and 2 dated October 2006 and prepared by ERM, including the submissions report titled <i>Marulan South Quarry Submissions Report</i> dated December 2006
EA (MOD 1)	Modification Application 06_0074 MOD 1 and the accompanying Statement of Environmental Effects entitled <i>Marulan South Quarry Statement of Environmental for a Pre-commencement Exploratory Test Pit</i> dated 13 November 2008, and letter from Boral Resources Pty Ltd to the Department dated 13 February 2009
EA (MOD 2)	Modification Application 06_0074 MOD 2 and the accompanying EA titled <i>Boral Peppertree Quarry Section 75W Modification Report</i> dated June 2011 and prepared by ERM Australia, and the responses to issues raised in submissions, including those titled <i>Peppertree Quarry Submissions Report</i> dated 24 August 2011, <i>Response to OEH Submission</i> dated 12 October 2011, and <i>Response to Armitth Submission</i> dated 25 October 2011
EA (MOD 3)	Modification Application 06_0074 MOD 3 and the accompanying EA titled <i>Peppertree Quarry Modification 3 Environmental Assessment</i> dated August 2012 and prepared by EMGA Mitchell McLennan Pty Limited, and the responses to issues raised in submissions titled <i>Response to Submissions Peppertree Quarry Modification 3</i> dated 3 October 2012
EA (MOD 4)	Modification Application DA 06_0074 MOD 4 and the accompanying Environmental Assessment titled <i>Peppertree Quarry Modification 4 Environmental Assessment</i> dated April 2016 and prepared by Element Environment, including the Response to Submissions report dated July 2016 and prepared by Element Environment
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence under the <i>Protection of the Environment Operations Act 1997</i>
Feasible	Feasible relates to engineering considerations and what is practical to build or carry out
Habitat Management Area Incident	The area identified as such on the figure in Appendix 5 A set of circumstances that: <ul style="list-style-type: none"> <li>• causes or threatens to cause material harm to the environment; and/or</li> <li>• breaches or exceeds the limits or performance measures/criteria in this approval</li> </ul>
Land	As defined in the EP&A Act, except where the term is used in the noise and air quality conditions in Schedules 3 and 4 of this approval, where it is defined as the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Minister	Minister for Planning, or delegate
Mitigation	Activities associated with reducing the impacts of the project
Negligible	Small and unimportant, such as to be not worth considering
Noise Bund	<b>Bunds built for noise and visual mitigation purposes and which do not exceed 10 metres in height</b>
OEH	<b>Office of Environment and Heritage</b>
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency, the Proponent or another quarrying or mining company
Project	<b>Development to which the Project Approval applies</b>
Proponent	Boral Resources (NSW) Pty Ltd or any other person or persons who rely on this approval to carry out the project that is subject to this approval
Public infrastructure	Linear and related infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc.

Quarry operations	Extraction, processing, stockpiling and transportation of extractive materials carried out on the site and the associated removal of vegetation, topsoil and overburden
Quarry products	Includes all saleable quarry products, but excludes tailings and other wastes
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Rehabilitation	The restoration of land disturbed by the project to a good condition, and for the purpose of establishing a safe, stable and non-polluting environment
RL	Reduced level
RMS	Roads and Maritime Services
Secretary	Secretary of the Department, or nominee
Site	Land to which the Project Approval applies (see Appendix 1)

---

## SCHEDULE 2 ADMINISTRATIVE CONDITIONS

### Obligation to Minimise Harm to the Environment

1. The Proponent **must** implement all practicable measures to prevent or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.

### Terms of Approval

2. The Proponent must carry out the project:
  - (a) generally in accordance with the EA, EA (Mod 1), EA (Mod 2), EA (Mod 3) and EA (Mod 4); and
  - (b) in accordance with the Project Layout Plan and the conditions of this approval.

*Note: The Project Layout Plan is included in Appendix 2.*

3. If there is any inconsistency between the documents in condition 2(a), the most recent document shall prevail to the extent of the inconsistency. The conditions of this approval shall prevail over the documents in condition 2(a) to the extent of any inconsistency.
4. The Proponent must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
  - (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval (including any stages of these documents);
  - (b) any reviews, reports or audits commissioned by the Department regarding compliance with this approval; and
  - (c) the implementation of any actions or measures contained in these documents.

### Limits on Approval

5. The Proponent may carry out quarrying operations on the site until 31 December 2038.

*Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of the Secretary. Consequently this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the rehabilitation of the site and those additional undertakings have been carried out to a satisfactory standard.*

6. The Proponent must not transport more than 3.5 million tonnes of quarry products from the site in any calendar year.
7. All quarry products must normally be transported from the site by rail. However, with the written approval of the Secretary, the Proponent may transport quarry products by road in an emergency or in other limited and exceptional circumstances.

### Structural Adequacy

8. The Proponent **must** ensure that all new buildings and structures on the site are constructed in accordance with the relevant requirements of the BCA.

*Notes:*

- Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for any building works.
- Part 8 of the EP&A Regulation sets out the detailed requirements for the certification of development.

### Demolition

9. The Proponent **must** ensure that all demolition work on site is carried out in accordance with AS 2601-2001: *The Demolition of Structures*, or its latest version.

### Protection of Public Infrastructure

10. The Proponent **must**:
  - (a) repair, or pay all reasonable costs associated with repairing any public infrastructure that is damaged by the project; and
  - (b) relocate, or pay all reasonable costs associated with relocating any public infrastructure that needs to be relocated as a result of the project.

### Operation of Plant and Equipment

11. The Proponent **must** ensure that all plant and equipment used at the site is:
  - (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient condition.

12.

*(deleted)*

---

## SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

### GENERAL EXTRACTION AND PROCESSING PROVISIONS

#### Identification of Boundaries

1. Prior to the commencement of construction, or as otherwise directed by the **Secretary**, the Proponent **must**:
  - (a) engage an independent registered surveyor to survey the boundaries of the approved limit of extraction;
  - (b) submit a survey plan of these boundaries to the **Secretary**; and
  - (c) ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits

*Note: The limit of extraction is shown conceptually on the plan in Appendix 2.*

- 1A. The proponent **must**:
  - (a) prior to the commencement of construction of the Southern Overburden Emplacement Area, or as otherwise agreed by the **Secretary**, engage an independent registered surveyor to survey the boundary of the emplacement area and submit a survey plan of this boundary to the **Secretary**; and
  - (b) ensure that, during its construction and use, the boundary of the Southern Overburden Emplacement area is clearly marked in a manner that allows operating staff and inspecting officers to clearly identify its location.

*Note: The boundary of the Southern Overburden Emplacement Area is shown on the figure in Appendix 2.*

### NOISE

#### Construction of Bunds

2. In carrying out the construction of the noise bunds, the Proponent **must**:
  - (a) comply with the construction noise criteria in the *Environmental Noise Control Manual 1994* for the first three months of the construction work; and
  - (b) thereafter, comply with the daytime operational noise criteria in condition 4.

#### Construction Noise Management Plan

3. The Proponent **must** prepare and implement a Construction Noise Management Plan for the project to the satisfaction of the **Secretary**. This plan must be submitted to the **Secretary** for approval prior to the commencement of construction, and include:
  - (a) a detailed description of the measures that would be implemented to achieve the construction noise limits in the *Environmental Noise Control Manual 1994* and the operational noise criteria in condition 4;
  - (b) a community notification protocol for the proposed construction activities;
  - (c) a description of the measures that would be implemented where the construction noise limits and/or operational noise limits are unlikely to be achieved or are not being achieved; and
  - (d) details of who would be responsible for monitoring, reviewing and implementing the plan.

#### Operational Noise Impact Assessment Criteria

4. The Proponent **must** ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 1 at any residence on privately-owned land.

*Table 1: Noise Impact Assessment Criteria dB(A)*

<b>Residential Receiver Location</b>	<b>Day (7:00am to 7:00pm)</b> <i>L<sub>Aeq</sub>(15 minute)</i>	<b>Evening (7:00pm to 10:00pm)</b> <i>L<sub>Aeq</sub>(15 minute)</i>	<b>Night (10:00pm to 7:00am)</b>	
			<i>L<sub>Aeq</sub>(15 minute)</i>	<i>L<sub>A1</sub>(1 minute)</i>
R3 (5)	35	35	35	45
R2 (6)	35	35	35	45
R8 (16)	41	35	35	45



Any other residence on privately-owned land	35	35	35	45
---	----	----	----	----

Notes:

- Residential receiver locations are shown on the plan in Appendix 3.
- Receiver numbers in parentheses are those identified in the approval prior to the notification of Modification 4 in 2016.

Noise generated by the development is to be measured in accordance with the relevant requirements of the Industrial Noise Policy (as may be updated from time-to-time). Appendix 7 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, the noise criteria in Table 1 do not apply if the Proponent has an agreement with the owner/s of the relevant residence or land to exceed the noise criteria, and the Proponent has advised the Department in writing of the terms of this agreement.

### Land Acquisition Criteria

- If the noise generated by the project exceeds the criteria in Table 2, the Proponent must, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 6-8 of Schedule 4.

Table 2: Land Acquisition Criteria

<b>Residential Receiver</b>	<b>Day (7:00am – 7:00pm) <i>L<sub>Aeq</sub>(15 minute)</i></b>	<b>Evening / Night (7:00pm – 7:00am) <i>L<sub>Aeq</sub>(15 minute)</i></b>
R3 (5)	40	40
R2 (6)	40	40
R8 (16)	44	44

Notes:

- Residential receiver locations are shown on the plan in Appendix 3.
- Receiver numbers in parentheses are those identified in the approval prior to the notification of Modification 4 in 2016.

- (deleted)
- (deleted)
- (deleted)

### Operating Conditions

- The Proponent must:
  - implement best practice noise management, including all reasonable and feasible noise mitigation measures to minimise the noise generated by the project;
  - investigate ways to minimise the noise generated by the project;
  - operate a comprehensive noise management system that uses a combination of predictive meteorological forecasting and noise monitoring data to guide the day to day planning of quarrying operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval;
  - minimise noise impacts during adverse weather conditions; and
  - report on these investigations and the implementation and effectiveness of these measures in the Annual Review,
 to the satisfaction of the Secretary.

### Noise Management Plan

- The Proponent must prepare a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with EPA and submitted to the Secretary for approval by the end of March 2012, and must:
  - describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval;
  - describe the noise management system;
  - include a noise monitoring program that:
    - supports the noise management system;

- provides information to evaluate the performance of the project;
  - includes a protocol for determining exceedances of relevant conditions of this approval;
  - provides for the use of real-time and/or supplementary attended monitoring measures, if directed by the Secretary;
  - includes regular attended and unattended monitoring at appropriate locations, including at receiver locations R4 and R17; and
  - includes a program to characterise and measure low frequency noise (dB(C)) emissions.
- (d) include a community notification protocol for the proposed construction activities; and  
(e) detail who would be responsible for monitoring, reviewing and implementing the plan.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

### Hours of Operation

11. The Proponent must comply with the hours of operation in Table 3.

<b>Activity</b>	<b>Day</b>	<b>Time</b>
Construction works	Monday-Friday	7.00am to 6.00pm
	Saturday	8.00am to 1.00pm
	Sunday and public holidays	None
Topsoil/overburden removal/emplacement	Any day	7.00am to 7.00pm
Blasting	Monday-Saturday	9.00am to 5.00pm
	Sunday and public holidays	None
In-pit activities (including drilling, extraction, processing, and transfer of material out of the pit)	Any day	5.00am to 11.00pm
Out-of-pit activities (including processing, stockpiling, train loading and distribution, and maintenance)	Any day	24 hours

Table 3 – Hours of Operation

- 11A. Between the hours of 5:00am to 7:00am and 7:00pm to 11:00pm the:
- in-pit crusher must not operate above RL 555; and
  - mobile plant in the pit, including excavators, front-end loaders and trucks, must not operate above RL 570.

### BLASTING AND VIBRATION

#### Airblast Overpressure Criteria

12. The Proponent must ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in Table 4 at any residence on privately-owned land.

<b>Airblast overpressure level (dB(Lin Peak))</b>	<b>Allowable exceedance</b>
115	5% of the total number of blasts over a period of 12 months
120	0%

Table 4: Airblast Overpressure Impact Assessment Criteria

#### Ground Vibration Criteria

13. The Proponent must ensure that the ground vibration level from blasting at the project does not exceed the criteria in Table 5 at any residence or sensitive receiver on privately-owned land.

<b>Peak particle velocity (mm/s)</b>	<b>Allowable exceedance</b>
5	5% of the total number of blasts over a period of 12 months
10	0%

Table 5: Ground Vibration Impact Assessment Criteria for Residences on Privately-owned Land

## Operating Conditions

14. The Proponent **must** implement best blasting practice to:
- ensure that no flyrock leaves the site;
  - protect the safety of people, property, and livestock; and
  - minimise the dust and fume emissions from blasting on the site, to the satisfaction of the Secretary.

## Public Notice

15. The Proponent **must**:
- notify the landowner/occupier of any residence within 2 kilometres of the quarry pit who registers an interest in being notified about the blasting schedule on site;
  - operate a blasting hotline, or alternative system agreed to by the Secretary, to enable the public to get up-to-date information on blasting operations at the project; and
  - keep the public informed about this hotline (or any alternative system), to the satisfaction of the Secretary.

## Monitoring

16. The Proponent **must** prepare a Blast Monitoring Program for the project to the satisfaction of the Secretary. This program must:
- be submitted to the Secretary for approval prior to the commencement of construction;
  - be prepared in consultation with the EPA; and
  - monitor the performance of the project against the relevant blasting criteria.

The Proponent must implement the approved monitoring program as approved from time to time by the Secretary.

## AIR QUALITY

### Air Quality Impact Assessment Criteria

17. The Proponent **must** ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not exceed the criteria listed in Tables 6, 7 and 8 at any residence on privately owned land, or on more than 25 percent of any privately owned land.

Table 6: Long term impact assessment criteria for particulate matter

<b>Pollutant</b>	<b>Averaging period</b>	<b><sup>d</sup> Criterion</b>
Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>

Table 7: Short term impact assessment criterion for particulate matter

<b>Pollutant</b>	<b>Averaging period</b>	<b><sup>d</sup> Criterion</b>
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 50 µg/m <sup>3</sup>

Table 8: Long term impact assessment criteria for deposited dust

<b>Pollutant</b>	<b>Averaging period</b>	<b>Maximum increase<sup>2</sup> in deposited dust level</b>	<b>Maximum total<sup>1</sup> deposited dust level</b>
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

Notes to Tables 6-8

<sup>a</sup> Total impact (i.e. incremental increase in concentrations due to the project plus background concentrations due to all other sources);

<sup>b</sup> Incremental impact (i.e. incremental increase in concentrations due to the project on its own);

<sup>c</sup> Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and

<sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.

### Land Acquisition Criteria

18. If particulate matter emissions generated by the project exceed the criteria in Tables 9, 10, and 11 at any residence on privately-owned land, or on more than 25 percent of any privately owned land, then upon

written request for acquisition from the landowner, the Proponent must acquire the land in accordance with the procedures in conditions 6-7 of schedule 4.

Table 9: Long term land acquisition criteria for particulate matter

<b>Pollutant</b>	<b>Averaging period</b>	<b><sup>d</sup> Criterion</b>
Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>

Table 10: Short term land acquisition criteria for particulate matter

<b>Pollutant</b>	<b>Averaging period</b>	<b><sup>da</sup> Criterion</b>
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 150 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>b</sup> 50 µg/m <sup>3</sup>

Table 11: Long term land acquisition criteria for deposited dust

<b>Pollutant</b>	<b>Averaging period</b>	<b>Maximum increase<sup>2</sup> in deposited dust level</b>	<b>Maximum total<sup>1</sup> deposited dust level</b>
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

Notes to Tables 9-11

<sup>a</sup> Total impact (i.e. incremental increase in concentrations due to the project plus background concentrations due to all other sources);

<sup>b</sup> Incremental impact (i.e. incremental increase in concentrations due to the project on its own);

<sup>c</sup> Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and

<sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.

## Operating Conditions

19. The Proponent must:
- implement best management practice on site, including all reasonable and feasible measures to minimise the off-site odour, fume and dust emissions generated by the project;
  - minimise any visible air pollution generated by the project;
  - minimise the surface disturbance of the site generated by the project; and
  - operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and air quality monitoring data to guide the day to day planning of quarrying operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval;
- to the satisfaction of the Secretary.

## Air Quality Management Plan

20. The Proponent must prepare a detailed Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with EPA and submitted to the Secretary by the end of March 2012;
  - describe the measures that would need to be implemented to ensure compliance with the relevant conditions of this approval;
  - include a program for the implementation of the measures referred to in (b) above; and
  - include an air quality monitoring program that:
    - uses a combination of high volume samplers and dust deposition gauges to evaluate the performance of the project;
    - supports the air quality management system;
    - provides information to evaluate the performance of the project;
    - includes a protocol for determining exceedances of relevant conditions of this approval; and
    - provides for the use of real-time monitoring measures, if directed by the Secretary.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

## METEOROLOGICAL MONITORING

21. For the life of the project, the Proponent must ensure that there is a meteorological station in the vicinity of the site that:

- (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
- (b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the *NSW Industrial Noise Policy*.

## **SURFACE AND GROUND WATER**

### **Water Supply**

22. Prior to the commencement of construction, the Proponent **must** obtain the necessary approvals for the project under the *Water Act 1912*.

*Note: The Water Management Act 2000 may apply to the project. The Proponent **must** consult with DPI Water on the relevant approvals at the time the application is made.*

### **Discharges**

23. Except as may be expressly provided for by an EPL, the Proponent **must** not discharge any dirty water from the quarry or ancillary operational areas.

- 23A. The Proponent **must** prepare an onsite wastewater report for the proposed effluent management system consistent with the requirements of *WaterNSW – “Developments in Sydney’s Drinking Water Catchment” – Water Quality Information Requirements, 2011*. The effluent management system must be designed and constructed to be in accordance with this onsite wastewater report and its design must be approved by Council prior to construction.

### **Tangarang Creek Environmental Flow**

24. The proponent **must** provide an environmental flow to Tangarang Creek equivalent to 10% of average daily flows. Details of the management of these environmental flows **must** be included in the Site Water Balance for the project (see below).

### **Sediment Dams**

25. The Proponent **must** ensure that:
- (e) critical structures such as “dirty water” dams are designed, constructed and maintained to accommodate a 1 in 100 year ARI 24-hour event; and
  - (f) other dams and water management structures are designed, constructed and maintained to accommodate a 1 in 20 year ARI 24-hour event.

### **Water Management Plan**

26. The Proponent **must** prepare a Water Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be submitted to the Secretary for approval prior to the commencement of construction;
  - (b) be prepared in consultation with the **DPI Water**, **EPA** and **WaterNSW**; and
  - (c) include a:
    - Site Water Balance;
    - Erosion and Sediment Control Plan;
    - Surface Water Monitoring Program;
    - Ground Water Monitoring Program; and
    - Surface and Ground Water Response Plan to address any potential adverse impacts associated with the project.

The Proponent **must** implement the approved management plan as approved from time to time by the Secretary.

### **Site Water Balance**

27. The Site Water Balance **must**:
- (a) include details of all water extracted (including make up water), dewatered, transferred, used and/or discharged by the project; and
  - (b) describe measures to minimise water use by the project.

### **Erosion and Sediment Control**

28. The Erosion and Sediment Control Plan **must**:
- (a) be consistent with the requirements of *Managing Urban Stormwater: Soils and Construction, Volume 1, 4<sup>th</sup> Edition, 2004* (Landcom);
  - (b) identify activities that could cause soil erosion and generate sediment;
  - (c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;

- (d) describe the location, function, and capacity of erosion and sediment control structures; and
- (e) describe what measures would be implemented to maintain (and if necessary decommission) the structures over time.

### Surface Water Monitoring

29. The Surface Water Monitoring Program **must** include:
- (a) detailed baseline data on surface water flows and quality in Tangarang Creek and Barbers Creek;
  - (b) surface water impact assessment criteria;
  - (c) a program to monitor surface water flows and quality;
  - (d) a protocol for the investigation of identified exceedances of the surface water impact assessment criteria; and
  - (e) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.

### Ground Water Monitoring Program

30. The Ground Water Monitoring Program **must** include:
- (a) detailed baseline data on ground water levels, flows, and quality, based on statistical analysis;
  - (b) groundwater impact assessment criteria for monitoring bores;
  - (c) a program to monitor regional ground water levels and quality; and
  - (d) a protocol for the investigation of identified exceedances of the ground water impact assessment criteria.
- 30A. In constructing and operating the Southern Overburden Emplacement Area, the Proponent **must** ensure that:
- (a) the surface water management system is constructed in accordance with the plan shown on the figure in Appendix 4; and
  - (b) the surface water management system includes appropriate scour protection at discharge points to ensure the potential for erosion and transport of sediment to downstream waters is minimised.
- 30B. On completing of the construction of the surface water management system for the Southern Overburden Emplacement Area, the Proponent **must** commission an audit by a suitably qualified, experienced and independent person, approved by the Secretary, to determine whether the system has been constructed in accordance with this approval. A copy of the audit report and the Proponent's response to its recommendations **must** be provided to the Secretary and WaterNSW within 12 weeks of its commissioning.

### TRAFFIC AND TRANSPORT

31. The Proponent **must** prepare and implement a construction traffic management plan for the project to the satisfaction of the RMS and Council.

### ABORIGINAL HERITAGE

32. The Proponent **must** prepare an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan **must**:
- (a) be submitted to the Secretary for approval prior to the commencement of construction;
  - (b) be prepared in consultation with the OEH and relevant Aboriginal communities; and
  - (c) include a:
    - description of the measures that would be implemented for the mapping, and salvage or relocation of the archaeological relics in the Tangarang Creek Dam 1 area;
    - description of the measures that would be implemented if any new Aboriginal objects or relics are discovered during the project; and
    - protocol for the ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site.

The Proponent **must** implement the approved management plan as approved from time to time by the Secretary.

- 32A. If historical archaeological relics are unexpectedly discovered during works, all works **must** cease and a suitably qualified and experienced historical archaeologist be brought in to assess the find. Depending on the nature of the discovery, additional assessment and recording may be required prior to the recommencement of excavation in the affected area. The Heritage Council (or its Delegate) **must** be notified of this discovery in writing in accordance with section 146 of the *Heritage Act, 1977*.

## BIODIVERSITY AND REHABILITATION

### Rehabilitation and Habitat Management Area

33. The Proponent must:
- (a) rehabilitate the site in a manner that is generally consistent with the conceptual rehabilitation principles in Chapter 2.8 of the EA; and
  - (b) implement the Habitat Management Area in a manner that is generally consistent with the documents listed in condition 2 of schedule 3 (and shown conceptually in Appendix 3), including the establishment, conservation and maintenance of at least 13.5 hectares of vegetation species characteristic of Box Gum Woodland, to the satisfaction of the Secretary.

### Threatened Species Protection

- 33A. The Proponent must:
- (a) prior to clearing of vegetation and site preparation on the site of the Western Overburden Emplacement and extension, clearly and securely mark out the proposed boundary of the emplacement and extension;
  - (b) avoid disturbance of *Box Gum Woodland* Endangered Ecological Community and other native vegetation adjacent to the site of the Western Overburden Emplacement and extension;
  - (c) only undertake clearing of vegetation on the site of the Western Overburden Emplacement and extension following a recent fauna survey undertaken by a suitably qualified expert who has been approved by the Secretary; and
  - (d) seek to avoid clearing of native vegetation on the site of the Western Overburden Emplacement and extension during the period August to November of any year.

### Biodiversity Offset Strategy

34. The Proponent must:
- (a) implement the Biodiversity Offset Strategy described in EA (Mod 4);
  - (b) within 12 months of the commencement of the construction of the Southern Overburden Emplacement Area, retire a total of 225 ecosystem credits in accordance with the *Framework for Biodiversity Assessment - NSW Biodiversity Offsets Policy for Major Projects*, to offset the removal of 8.1 hectares of White Box Yellow Box Blakely's Red Gum Grassy Woodland; and
  - (c) provide long-term security and funding for the biodiversity offset area identified in the Biodiversity Offset Strategy through a Biobanking Agreement under the *Threatened Species Conservation Act 1995*;
- to the satisfaction of the Secretary.

*Note: The location and approximate area of the biodiversity offset area is shown on the figure in Appendix 6.*

### Biodiversity and Rehabilitation Management Plan

- 34A. The Proponent must prepare a Biodiversity and Rehabilitation Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with OEH and Council;
  - (b) be submitted to the Secretary for approval by 28 February 2017, unless the Secretary agrees otherwise;
  - (c) describe how the implementation of the Biodiversity Offset Strategy would be integrated with the management of the Habitat Management Area, and the overall rehabilitation of the site;
  - (d) provide details of the conceptual final landform and associated land uses for the site;
  - (e) include detailed performance and completion criteria for evaluating the performance of the Biodiversity Offset Strategy, the Habitat Management Area and the rehabilitation of the site, including triggers for any necessary remedial action;
  - (f) describe the short, medium and long term measures that would be implemented to:
    - manage native vegetation on site, including within the Biodiversity Offset Area and the Habitat Management area; and
    - comply with the rehabilitation principles in Chapter 2.8 of the EA;
  - (g) describe in detail the measures that would be implemented over the next 3 years (to be updated for each 3 year period following initial approval of the plan) including the procedures to be implemented for:
    - maximising the salvage of environmental resources within approved disturbance areas, including tree hollows, vegetation and soil resources, for beneficial reuse in the Biodiversity Offset Area, the Habitat Management Area or for rehabilitating other areas of the site;
    - restoring and enhancing the quality of native vegetation and fauna habitat in the Biodiversity Offset Area, the Habitat Management Area and other areas of the site through assisted natural regeneration, targeted vegetation establishment and the introduction of fauna habitat features;



- protecting native vegetation and fauna habitat outside the approved disturbance area;
  - minimising the impacts of the project on native fauna, including the protocol for undertaking pre-clearance surveys;
  - establishing vegetation screening and landscaping the site (including the bunds and overburden emplacement areas) to minimise the visual impacts of the project on surrounding receivers;
  - ensuring minimal environmental consequences for threatened species, populations and habitats;
  - collecting and propagating seed;
  - controlling weeds and feral pests;
  - controlling access; and
  - bushfire management,
- (h) include a program to monitor and report on the effectiveness of these measures;
- (i) describe how the performance of these measures would be monitored over time; and
- (j) set completion criteria for the rehabilitation of the site.

The Proponent must implement the approved management plan as approved from time to time by the Secretary.

### Rehabilitation Bond

35. Within 3 months of the first Independent Environmental Audit the Proponent **must** lodge a rehabilitation bond for the project with the Secretary. The sum of the bond **must** be calculated at \$2.50/m<sup>2</sup> for the total area to be disturbed in each 5 year period, or as otherwise directed by the Secretary.

*Notes:*

- *If the rehabilitation is completed to the satisfaction of the Secretary, the Secretary will release the rehabilitation bond.*
- *If the rehabilitation is not completed to the satisfaction of the Secretary, the Secretary will call in all or part of the rehabilitation bond, and arrange for the satisfactory completion of the relevant works.*

36. Within 3 months of subsequent audits, the Proponent **must** review, and if necessary revise, the sum of the bond to the satisfaction of the Secretary. This review must consider:
- (a) the effects of inflation;
  - (b) any changes to the total area of disturbance; and
  - (c) the performance of the rehabilitation against the completion criteria of the **Biodiversity and Rehabilitation Management Plan**.

### VISUAL IMPACT

#### Visual Amenity and Lighting

37. The Proponent **must**:
- (a) *minimise the visual impacts, and particularly the off-site lighting impacts, of the project;*
  - (b) *revegetate overburden emplacements, emplacement extensions and bunds as soon as practicable;*
  - (c) *take all practicable measures to further mitigate off-site lighting impacts from the project; and*
  - (d) *ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Secretary.*

38. *(Deleted)*

39. *(Deleted)*

#### Advertising

40. The Proponent **must** not erect or display any advertising structure(s) or signs on the site without the written approval of the Secretary.

*Note – This does not include business identification, traffic management and safety or environmental signs.*

### WASTE MANAGEMENT

41. The Proponent **must**:
- (a) monitor the amount of waste generated by the project;
  - (b) investigate ways to minimise waste generated by the project;
  - (c) implement reasonable and feasible measures to minimise waste generated by the project; and
  - (d) report on waste management and minimisation in the **Annual Review** to the satisfaction of the Secretary.



42. The Proponent **must** ensure that all waste generated or stored on site is assessed, classified and managed in accordance with the EPA's *Environmental Guidelines: Assessment Classification and Management of Liquid and Non-Liquid Wastes*.

## **EMERGENCY AND HAZARDS MANAGEMENT**

### **Dangerous Goods**

43. The Proponent **must** ensure that the storage, handling, and transport of dangerous goods are conducted in accordance with the relevant *Australian Standards*, particularly AS1940 and AS1596, and the *Dangerous Goods Code*.

### **Safety**

44. The Proponent **must** secure the project to ensure public safety to the satisfaction of the Secretary.

### **Bushfire Management**

45. The Proponent **must**:
- (a) ensure that the project is suitably equipped to respond to any fires on-site; and
  - (b) assist the rural fire service and emergency services as much as possible if there is a fire on-site.

## **PRODUCTION DATA**

46. The Proponent **must**:
- (a) provide annual production data to the DRE using the standard form for that purpose; and
  - (b) include a copy of this data in the [Annual Review](#).

## **QUARRY EXIT STRATEGY**

47. The Proponent **must** prepare and implement a Quarry Exit Strategy for the project to the satisfaction of the Secretary. This strategy must:
- (a) be submitted to the Secretary for approval at least 5 years prior to the cessation of the project;
  - (b) be prepared in consultation with the relevant agencies;
  - (c) define the objectives and criteria for quarry closure;
  - (d) investigate options for the future use of the site, including any final void/s;
  - (e) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and
  - (f) describe how the performance of these measures would be monitored over time.
-

## SCHEDULE 4 ADDITIONAL PROCEDURES

### NOTIFICATION OF LANDOWNERS

1. If the results of monitoring required in Schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent **must** notify the Secretary and the affected landowners and/or existing or future tenants (including tenants of quarry owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the relevant criteria.

### INDEPENDENT REVIEW

2. If a landowner (excluding quarry owned properties) considers that the operations of the quarry are exceeding the impact assessment criteria in Schedule 3, then he/she may ask the Proponent in writing for an independent review of the impacts of the project on his/her land.

If the Secretary is satisfied that an independent review is warranted, **then within 2 months of the Secretary's decision, the Proponent must:**

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:
    - consult with the landowner to determine his/her concerns;
    - conduct monitoring to determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and
    - if the project is not complying with these criteria then:
      - determine if the more than one quarry/mine is responsible for the exceedance, and if so the relative share of each quarry/mine regarding the impact on the land;
      - identify the measures that could be implemented to ensure compliance with the relevant criteria; and
  - (b) give the Secretary and landowner a copy of the independent review.
3. If the independent review determines that the quarrying operations are complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary.
  4. If the independent review determines that the quarrying operations are not complying with the relevant criteria in Schedule 3, and that the quarry is primarily responsible for this non-compliance, then the Proponent **must:**
    - (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until the project complies with the relevant criteria; or
    - (b) secure a written agreement with the landowner to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Secretary.

If the independent review determines that the project is not complying with the relevant acquisition criteria, and that the project is primarily responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent **must** acquire all or part of the landowner's land in accordance with the procedures in condition 6-7 below.

5. If the independent review determines that the relevant criteria are being exceeded, but that more than one quarry/mine is responsible for this exceedance, then together with the relevant quarry/mine/s, the Proponent **must:**
  - (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until there is compliance with the relevant criteria; or
  - (b) secure a written agreement with the landowner and other relevant mine/s to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Secretary.

If the independent review determines that the project is not complying with the relevant acquisition criteria in schedule 3, but that more than one mine is responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent **must** acquire all or part of the landowner's land on as equitable a basis as possible with the relevant quarries/mine/s, in accordance with the procedures in conditions 6-7 below.

### LAND ACQUISITION

6. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent **must** make a binding written offer to the landowner based on:

- (a) the current market value of the landowner's interest in the property at the date of this written request, as if the land was unaffected by the project the subject of the project application, having regard to the:
- existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
  - presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the 'additional noise mitigation measures' in condition **Error! Reference source not found.** of Schedule 3;
- (b) the reasonable costs associated with:
- relocating within the Goulburn Mulwaree local government area, or to any other local government area determined by the Secretary; and
  - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; and
- (c) reasonable compensation for any disturbance caused by the land acquisition process.

However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land, and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.

Upon receiving such a request, the Secretary will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:

- consider submissions from both parties;
- determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;
- prepare a detailed report setting out the reasons for any determination; and
- provide a copy of the report to both parties.

Within 14 days of receiving the independent valuer's report, the Proponent must make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.

Within 14 days of this determination, the Proponent must make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.

If the landowner refuses to accept the Proponent's binding written offer under this condition within 6 months of the offer being made, then the Proponent's obligations to acquire the land must cease, unless the Secretary determines otherwise.

7. The Proponent must pay all reasonable costs associated with the land acquisition process described in condition 6 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.
8. *(deleted)*
-

**SCHEDULE 5  
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING**

**ENVIRONMENTAL MANAGEMENT**

**Environmental Management Strategy**

1. If the Secretary requires, the Proponent must prepare an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:
  - (a) be submitted to the Secretary for approval within 6 months of the Secretary advising the Proponent that the strategy is required;
  - (b) provide the strategic framework for the environmental management of the project;
  - (c) identify the statutory approvals that apply to the project;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
  - (e) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
    - receive, handle, respond to and record complaints;
    - resolve any disputes that may arise during the course of the project;
    - respond to any non-compliance; and
    - respond to emergencies; and
  - (f) include:
    - copies of any strategies, plans and programs approved under the conditions of this approval; and
    - a clear plan depicting all the monitoring to be carried out under the conditions of this approval.

The Proponent must implement any approved Environmental Management Strategy as approved from time to time by the Secretary.

**Management Plan Requirements**

2. The Proponent must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:
  - (a) detailed baseline data;
  - (b) a description of:
    - 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 project or any management measures;
  - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
  - (d) a program to monitor and report on the:
    - impacts and environmental performance of the project; and
    - effectiveness of any management measures (see (c) above);
  - (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;
  - (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
  - (g) a protocol for managing and reporting any:
    - incidents;
    - complaints;
    - non-compliances with statutory requirements; and
    - exceedances of the impact assessment criteria and/or performance criteria;
  - (h) a protocol for periodic review of the plan; and
  - (i) a document control table that includes version numbers, dates when the management plan was prepared and reviewed, names and positions of people who prepared and reviewed the management plan, a description of any revisions made and the date of the Secretary's approval.

*Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.*

### Revision of Strategies, Plans & Programs

3. Within 3 months of the submission of an:
- Annual Review under condition 9 below;
  - incident report under condition 7 below;
  - audit report under condition 10 below; and
  - any modifications to this approval,
- the Proponent must review the strategies, plans and programs required under this approval, to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.

*Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve environmental performance of the project.*

4. Prior to approval of management plans required to be submitted by 30 November 2016, and the approval of the Biodiversity and Rehabilitation Management Plan required to be submitted by 28 February 2017, all management plans, monitoring programs, strategies, programs and protocols approved as at the date of approval of modification 4 to this approval will continue to have full force and effect, and may be revised under the requirements of condition 5 below as if subject to the conditions of this approval that applied prior to the approval of Modification 4, or otherwise with the approval of the Secretary.

### Updating and Staging of Strategies, Plans or Programs

5. To ensure that strategies, plans or programs required under this approval are updated on a regular basis, and that they incorporate any appropriate additional measures to improve the environmental performance of the development, the Proponent may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Proponent may also submit any strategy, plan or program required by this approval on a staged basis.

With the agreement of the Secretary, the Proponent may prepare a revision of or a stage of a strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this approval.

#### Notes:

- *While any strategy, plan or program may be submitted on a staged basis, the Proponent will need to ensure that the operations associated with the development are covered by suitable strategies, plans or programs at all times.*
- *If the submission of any strategy, plan or program is to be staged; then the relevant strategy, plan or program must clearly describe the specific stage/s of the development to which the strategy, plan or program applies; the relationship of this stage/s to any future stages; and the trigger for updating the strategy, plan or program.*

### Adaptive Management

6. The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must, at the earliest opportunity:

- take all reasonable and feasible measures to ensure that the exceedance ceases and does not re-occur;
- consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.

### Community Consultative Committee

7. The Proponent must operate a Community Consultative Committee (CCC) for the project, to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version)

#### Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.*
- *In accordance with the guideline, the committee should be comprised of an independent chair and appropriate representation from the Proponent, Council and the local community.*
- *This condition may be fulfilled by the operation of a regional CCC for Boral's mining and quarrying activities in the Marulan area.*

## REPORTING

### Incident Reporting

8. The Proponent must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

### Regular Reporting

9. The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.

### Annual Review

10. By the end of March each year, or other timing as may be agreed by the Secretary, the Proponent must submit a report to the Department reviewing the environmental performance of the project to the satisfaction of the Secretary. This review must:
  - (a) describe the works (including rehabilitation) that were carried out in the previous calendar year, and the works that are proposed to be carried out over the current calendar year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against the:
    - relevant statutory requirements, limits or performance measures/criteria;
    - requirements of any plan or program required under this approval;
    - monitoring results of previous years; and
    - relevant predictions in the documents listed in condition 2(a) of Schedule 2;
  - (c) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;
  - (d) identify any trends in the monitoring data over the life of the project;
  - (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
  - (f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the project.

## INDEPENDENT ENVIRONMENTAL AUDIT

11. Within 3 years of the date of the commencement of construction and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
  - (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
  - (b) include consultation with the relevant agencies and the CCC;
  - (c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL or necessary water licence for the project (including any assessment, strategy, plan or program required under these approvals);
  - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;
  - (e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and
  - (f) be conducted and reported to the satisfaction of the Secretary.

*Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.*

Within 10 weeks of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

## ACCESS TO INFORMATION

12. By 30 November 2016, unless otherwise agreed by the Secretary, the Proponent must:
  - (a) make the following information publicly available on its website:
    - the documents listed in condition 2(a) of Schedule 2;
    - current statutory approvals for the project;
    - all approved strategies, plans or programs required under the conditions of this approval;
    - a comprehensive summary of the monitoring results of the project, reported in accordance with the specifications in any conditions of this approval, or any plans and programs required under the conditions of this approval;

- a complaints register, which is to be updated on a quarterly basis;
  - the Annual Reviews (over the last 5 years);
  - any independent environmental audit, and the Proponent's response to the recommendations in any audit; and
  - any other matter required by the Secretary, and
- (b) keep this information up-to-date,  
to the satisfaction of the Secretary.

## APPENDIX 1: SCHEDULE OF LAND

<i>Lot</i>	<i>DP</i>
23	867667
5	203290
95	750029
24	867667
109	750029
1	371167
1-6	261615
1	557562
143	750029
12	570616
2	557562
21	657523
100	1064794
4	106569
1-9	216767
11	570616
5	111641
22	867667
1	1124189
2	106569



APPENDIX 2: PROJECT LAYOUT

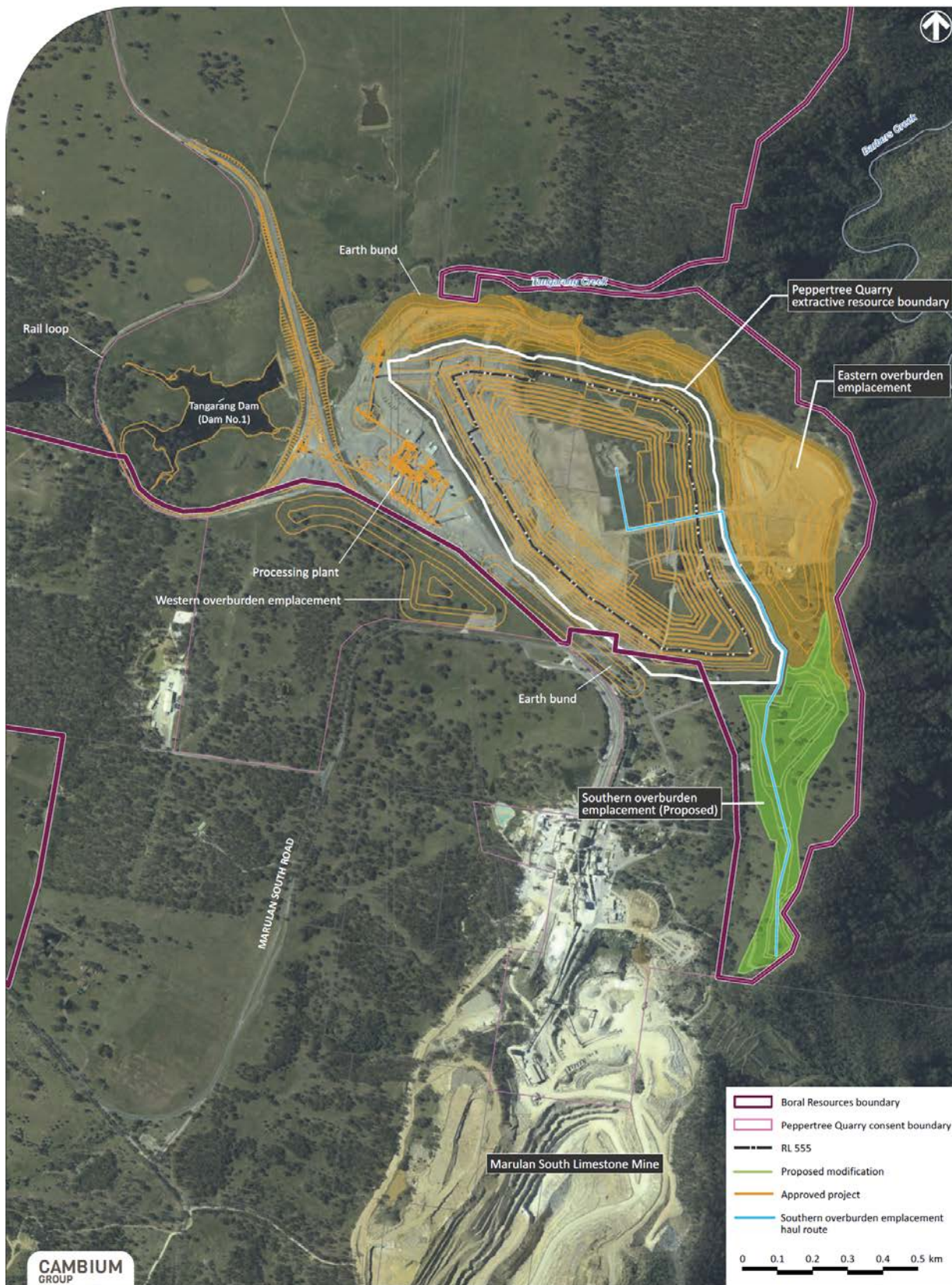


Figure showing the project layout



### APPENDIX 3: NOISE RECEIVER LOCATIONS

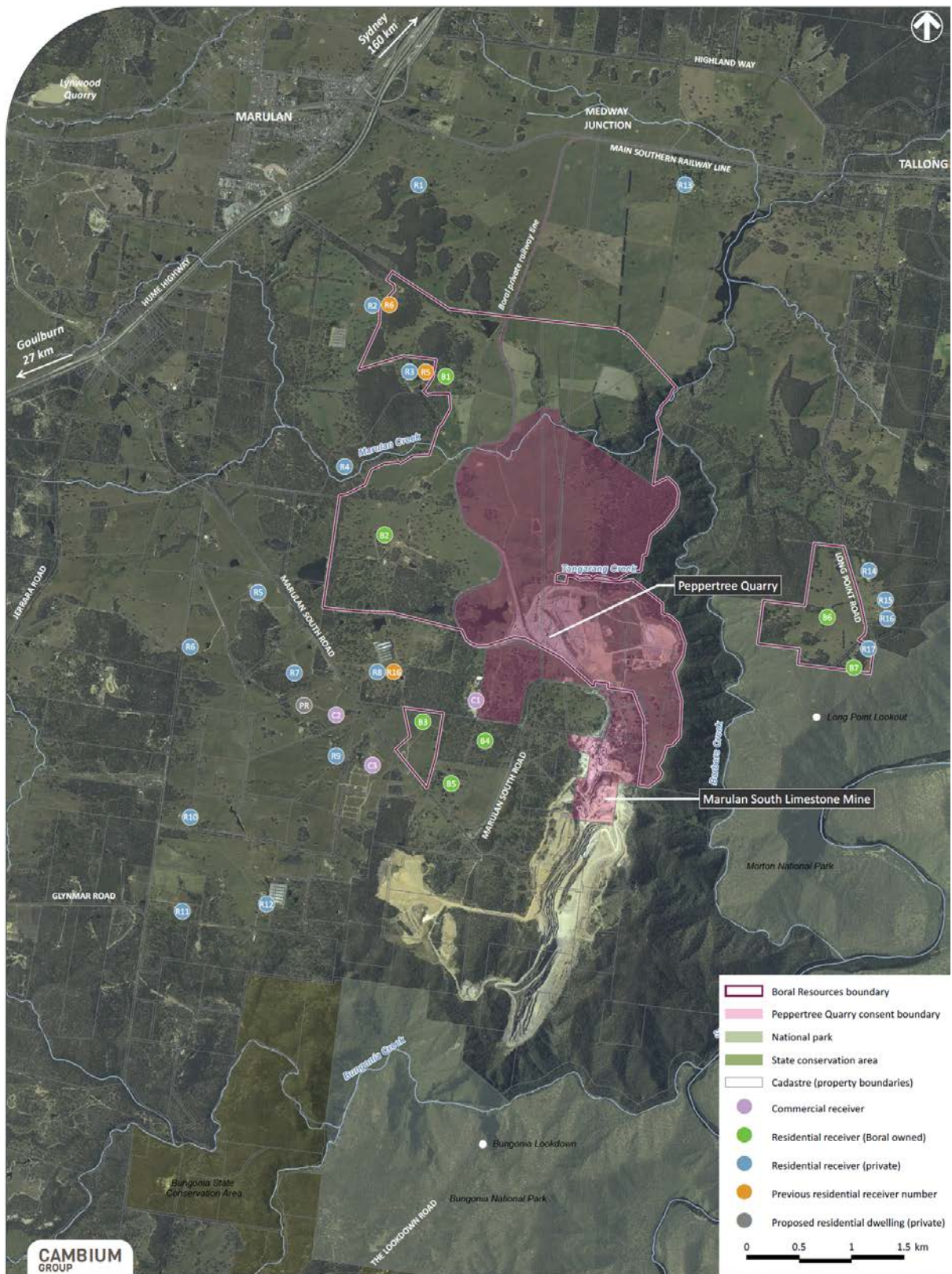


Figure showing the location of the residential receivers



**APPENDIX 4: SURFACE WATER MANAGEMENT SYSTEM FOR THE SOUTHERN OVERBURDEN EMPLACEMENT AREA**

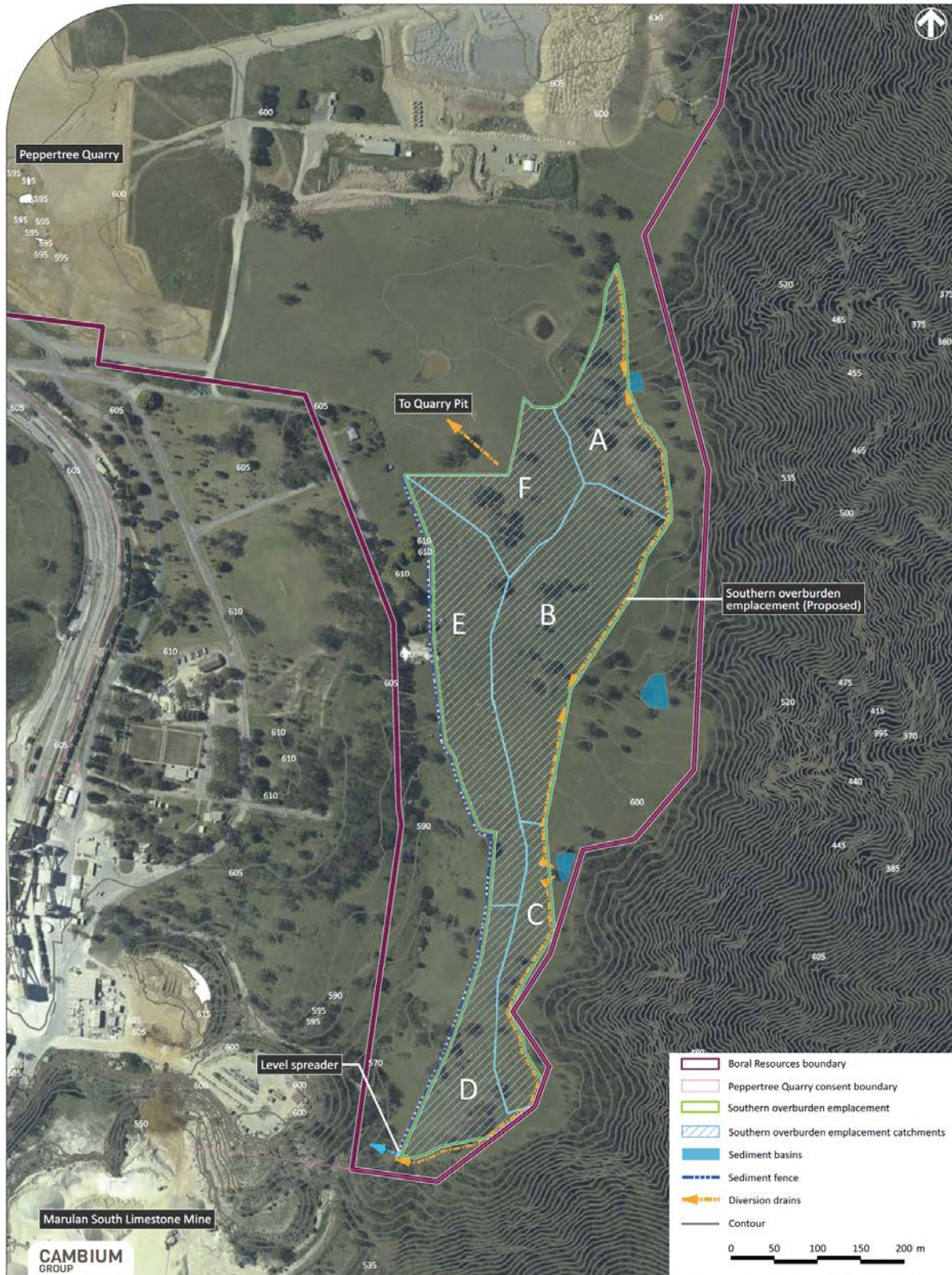


Figure showing the surface water management system for the southern overburden emplacement area



APPENDIX 5: HABITAT MANAGEMENT AREA

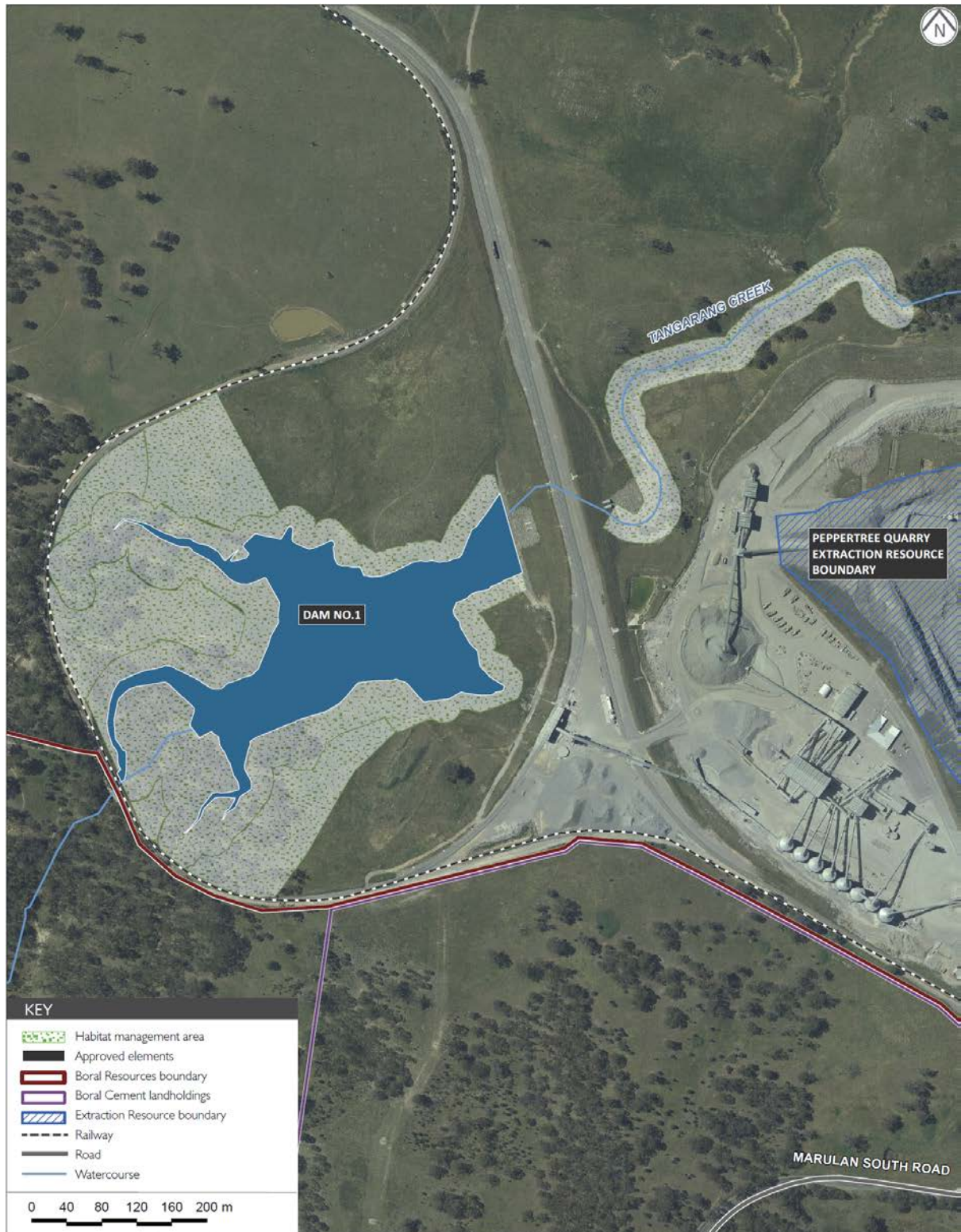
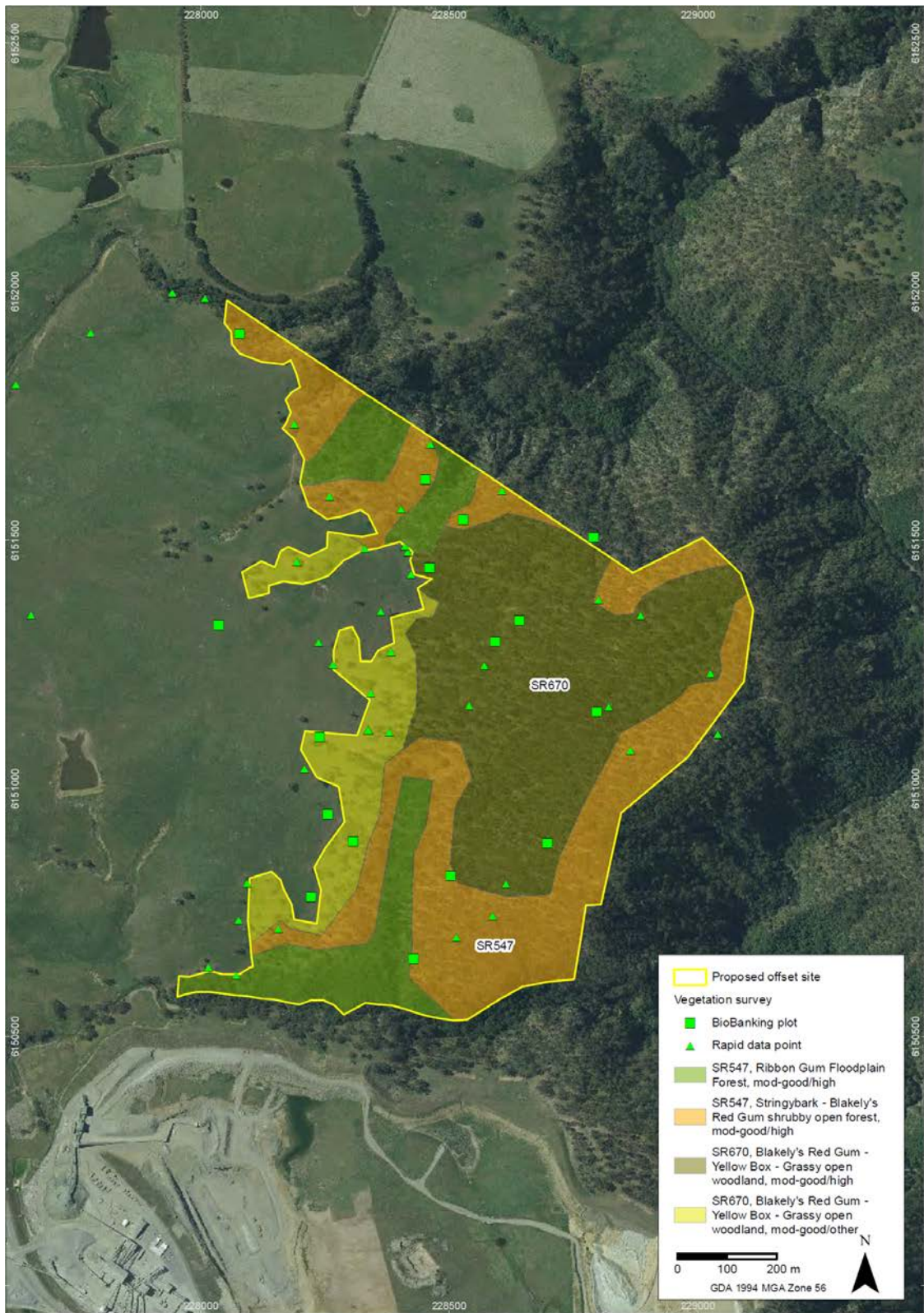


Figure showing the location of the Habitat Enhancement Area



## APPENDIX 6: BIODIVERSITY OFFSET AREA



Proposed offset area – Survey and vegetation mapping

Figure showing the location and approximate area of the biodiversity offset area

## APPENDIX 7: NOISE COMPLIANCE ASSESSMENT

### Applicable Meteorological Conditions

1. The noise criteria in Table 2 are to apply under all meteorological conditions except the following:
  - a) wind speeds greater than 3 m/s at 10 m above ground level; or
  - b) temperature inversion conditions between 1.5°C and 3°C/100 m and wind speed greater than 2 m/s at 10 m above ground level; or
  - c) temperature inversion conditions greater than 3°C/100 m.

### Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station required under condition xx of Schedule 3.

### Compliance Monitoring

3. Unless the Secretary agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
  - a) monitoring locations for the collection of representative noise data;
  - b) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment;
  - c) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration; and
  - d) the use of an appropriate modifying factor for low frequency noise to be applied during compliance testing at any individual residence if low frequency noise is present (in accordance with the INP) and before comparison with the specified noise levels in the approval.

Boral Resources (NSW) Pty Ltd

## **APPENDIX B**

### **Environmental Protection Licence**

# Environment Protection Licence

Licence - 13088

## Licence Details

Number:	13088
Anniversary Date:	23-July

## Licensee

BORAL RESOURCES (NSW) PTY LTD  
 PO BOX 6041  
 NORTH RYDE NSW 2113

## Premises

PEPPERTREE QUARRY  
 MARULAN SOUTH ROAD  
 MARULAN SOUTH NSW 2579

## Scheduled Activity

Extractive activities

## Fee Based Activity

## Scale

Land-based extractive activity	> 2000000 T annual capacity to extract, process or store
--------------------------------	--

## Region

South East - Queanbeyan  
 11 Farrer Place  
 QUEANBEYAN NSW 2620  
 Phone: (02) 6229 7002  
 Fax: (02) 6229 7006  
 PO Box 622  
 QUEANBEYAN NSW 2620



# Environment Protection Licence



Licence - 13088

<b>INFORMATION ABOUT THIS LICENCE</b>	4
Dictionary	4
Responsibilities of licensee	4
Variation of licence conditions	4
Duration of licence	4
Licence review	4
Fees and annual return to be sent to the EPA	4
Transfer of licence	5
Public register and access to monitoring data	5
<b>1 ADMINISTRATIVE CONDITIONS</b>	6
A1 What the licence authorises and regulates	6
A2 Premises or plant to which this licence applies	6
A3 Information supplied to the EPA	7
<b>2 DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND</b>	7
P1 Location of monitoring/discharge points and areas	7
<b>3 LIMIT CONDITIONS</b>	8
L1 Pollution of waters	8
L2 Noise limits	8
L3 Blasting	9
L4 Hours of operation	9
<b>4 OPERATING CONDITIONS</b>	10
O1 Activities must be carried out in a competent manner	10
O2 Maintenance of plant and equipment	10
O3 Dust	10
<b>5 MONITORING AND RECORDING CONDITIONS</b>	10
M1 Monitoring records	10
M2 Requirement to monitor concentration of pollutants discharged	11
M3 Testing methods - concentration limits	12
M4 Recording of pollution complaints	12
M5 Telephone complaints line	12
<b>6 REPORTING CONDITIONS</b>	13
R1 Annual return documents	13
R2 Notification of environmental harm	14
R3 Written report	14

# Environment Protection Licence

---

Licence - 13088



<b>7 GENERAL CONDITIONS</b> .....	15
G1 Copy of licence kept at the premises or plant .....	15
<b>DICTIONARY</b> .....	16
General Dictionary .....	16

# Environment Protection Licence

---

Licence - 13088



## Information about this licence

### Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

### Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

### Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

### Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

### Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

### Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

# Environment Protection Licence



Licence - 13088

The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

## Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

## Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

## This licence is issued to:

<b>BORAL RESOURCES (NSW) PTY LTD</b>
<b>PO BOX 6041</b>
<b>NORTH RYDE NSW 2113</b>

subject to the conditions which follow.

# Environment Protection Licence

Licence - 13088

## 1 Administrative Conditions

### A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2:

The licensee is permitted to undertake pre-construction exploratory test pit activities as described in modification application 06\_0074 MOD 1 relating to the extraction and despatch of up to 9,000 tonnes of extracted material..

A1.2 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Extractive activities	Land-based extractive activity	> 2000000 T annual capacity to extract, process or store

### A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
PEPPERTREE QUARRY
MARULAN SOUTH ROAD
MARULAN SOUTH
NSW 2579
LOT 2 DP 106569, LOT 4 DP 106569, LOT 5 DP 111641, LOT 5 DP 203290, LOT 1 DP 216767, LOT 2 DP 216767, LOT 3 DP 216767, LOT 4 DP 216767, LOT 5 DP 216767, LOT 6 DP 216767, LOT 7 DP 216767, LOT 8 DP 216767, LOT 9 DP 216767, LOT 1 DP 261615, LOT 2 DP 261615, LOT 3 DP 261615, LOT 4 DP 261615, LOT 5 DP 261615, LOT 6 DP 261615, LOT 1 DP 371167, LOT 1 DP 557562, LOT 2 DP 557562, LOT 11 DP 570616, LOT 12 DP 570616, LOT 21 DP 657523, LOT 95 DP 750029, LOT 109 DP 750029, LOT 143 DP 750029, LOT 22 DP 867667, LOT 23 DP 867667, LOT 24 DP 867667, LOT 100 DP 1064794, LOT 1 DP 1124189
AUTO CONSOL 14488213

# Environment Protection Licence

Licence - 13088

## A3 Information supplied to the EPA

A3.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

- a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
- b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

## 2 Discharges to Air and Water and Applications to Land

### P1 Location of monitoring/discharge points and areas

P1.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

<i>Air</i>			
EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
1	Dust Monitoring - TSP		High Volume Air Sampler labelled 'HV1' on Figure 2 'Locations of Dust and High Volume Air Samplers' in 'Peppertree Quarry Air Quality Management Plan' dated April 2017.
2	Dust Monitoring - PM10		High Volume Air Sampler labelled 'HV2' on Figure 2 'Locations of Dust and High Volume Air Samplers' in 'Peppertree Quarry Air Quality Management Plan' dated April 2017.
3	Dust Monitoring		Dust Deposition Gauge labelled 'D1' on Figure 2 'Locations of Dust and High Volume Air Samplers' in 'Peppertree Quarry Air Quality Management Plan' dated April 2017.
4	Dust Monitoring		Dust Deposition Gauge labelled 'D2' on Figure 2 'Locations of Dust and High Volume Air Samplers' in 'Peppertree Quarry Air Quality Management Plan' dated April 2017.
5	Dust Monitoring		Dust Deposition Gauge labelled 'D3' on Figure 2 'Locations of Dust and High Volume Air Samplers' in 'Peppertree Quarry Air Quality Management Plan' dated April 2017.

# Environment Protection Licence



Licence - 13088

## 3 Limit Conditions

### L1 Pollution of waters

- L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

### L2 Noise limits

- L2.1 Noise generated at the premises must not exceed the noise limits presented in the table below:

Residential Receiver	Day Shift	Night Shift	Night Shift	Night Shift
	Day	Evening	Night	Night
	LAeq(15 minute)	LAeq(15 minute)	LAeq(15 minute)	LA1(1 minute)
R3 (5)	35	35	35	45
R2 (6)	35	35	35	45
R8 (16)	41	35	35	45
Any other noise sensitive location	35	35	35	45

Note: For the purposes of the above table, the following definitions apply:

- Day - the period from 7.00am to 6.00pm Monday to Saturday; or 8.00am to 6.00pm on Sundays and public holidays.
- Evening - the period from 6.00pm to 10.00pm.
- Night - the remaining periods

The identified "Day" noise criteria apply throughout the period of the site's Day Shift (ie 7.00am to 7.00pm) on all days, despite the general definitions of Evening and Night otherwise applying to the approval. The identified "Evening" and "Night" criteria apply only during the period of the site's Night Shift (ie 7.00pm to 7.00am).

- L2.2 Noise from the site is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the identified noise limits, except where specified below.

Noise from the project is to be measured at 1 metre from the dwelling facade to determine compliance with the LA1(1 minute) noise level.

Where it can be demonstrated the direct measurement of noise from the project is impractical, alternative means of determining compliance may be acceptable (see Chapter 11 of the NSW Industrial Noise Policy).

The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied

# Environment Protection Licence

Licence - 13088



to the measured noise level where applicable.

The identified noise emission limits apply under all meteorological conditions except the following:

1. wind speeds greater than 3m/s at 10m above ground level; or
2. temperature inversion conditions between 1.5°C and 3°C/100m and wind speed greater than 2m/s at 10m above ground level; or
3. temperature inversion conditions greater than 3°C/100m.

## L3 Blasting

- L3.1 The licensee must ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in the below table at any residence on privately owned land:

Airblast overpressure level (dB(Lin Peak))	Allowable exceedance
115	5% of the total number of blasts over a period of 12 months
120	0%

- L3.2 The licensee must ensure that the ground vibration level from blasting at the project does not exceed the criteria in the below table at any residence or sensitive receiver on privately owned land.

Peak particle velocity (mm/s)	Allowable exceedance
5	5% of the total number of blasts over a period of 12 months
10	0%

## L4 Hours of operation

- L4.1 Activities at the premises may only be undertaken within the times as specified in the table below:

Activity	Day	Hours
Construction works	Monday - Friday	7:00am - 6:00pm
Construction works	Saturday	8:00am - 1:00pm
Construction works	Sunday and Public Holidays	Nil
Blasting	Monday - Saturday	9:00am - 5:00pm
Blasting	Sunday and Public Holidays	Nil



# Environment Protection Licence

Licence - 13088



Topsoil/overburden removal/emplacement	Any day	7:00am - 7:00pm
In-pit activities (including drilling, extraction, processing, transfer of material out of the pit)	Any day	5:00am - 11:00pm
Out-of-pit activities (including processing, stockpiling, train loading, distribution, maintenance)	Any day	24 hours

Note: Between the hours of 5:00am to 7:00am and 7:00pm to 11:00pm, the:

1. in-pit crusher must not operate above RL 555; and
2. mobile plant in the pit, including excavators, front-end loaders and trucks, must not operate above RL 570.

## 4 Operating Conditions

### O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:

- a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

### O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:

- a) must be maintained in a proper and efficient condition; and
- b) must be operated in a proper and efficient manner.

### O3 Dust

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

## 5 Monitoring and Recording Conditions

### M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must

# Environment Protection Licence



Licence - 13088

be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:

- in a legible form, or in a form that can readily be reduced to a legible form;
- kept for at least 4 years after the monitoring or event to which they relate took place; and
- produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:

- the date(s) on which the sample was taken;
- the time(s) at which the sample was collected;
- the point at which the sample was taken; and
- the name of the person who collected the sample.

## M2 Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

### M2.2 Air Monitoring Requirements

#### POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
Total suspended particles	micrograms per cubic metre	Special Frequency 1	AS/NZS 3580.9.3:2003

#### POINT 2

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Special Frequency 1	AS/NZS 3580.9.6:2003

#### POINT 3,4,5

Pollutant	Units of measure	Frequency	Sampling Method
Particulates - Deposited Matter	grams per square metre per month	Monthly	Australian Standard 3580.10.1-2003

Note: For the purpose of the above table(s), Special Frequency 1 means the collection of samples over a 24 hour period, every 6 days.

# Environment Protection Licence

---



Licence - 13088

## M3 Testing methods - concentration limits

- M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:
- a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
  - b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or
  - c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The *Protection of the Environment Operations (Clean Air) Regulation 2010* requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

## M4 Recording of pollution complaints

- M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.
- M4.2 The record must include details of the following:
- a) the date and time of the complaint;
  - b) the method by which the complaint was made;
  - c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
  - d) the nature of the complaint;
  - e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
  - f) if no action was taken by the licensee, the reasons why no action was taken.
- M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.
- M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

## M5 Telephone complaints line

- M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.
- M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

# Environment Protection Licence



Licence - 13088

M5.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

## 6 Reporting Conditions

### R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

1. a Statement of Compliance,
2. a Monitoring and Complaints Summary,
3. a Statement of Compliance - Licence Conditions,
4. a Statement of Compliance - Load based Fee,
5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

R1.3 Where this licence is transferred from the licensee to a new licensee:

- a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
- b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:

- a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
- b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- a) the licence holder; or
- b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

# Environment Protection Licence

---



Licence - 13088

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

## **R2 Notification of environmental harm**

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

## **R3 Written report**

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:

- a) where this licence applies to premises, an event has occurred at the premises; or
- b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,

and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:

- a) the cause, time and duration of the event;
- b) the type, volume and concentration of every pollutant discharged as a result of the event;
- c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
- d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
- g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

# Environment Protection Licence

---

Licence - 13088



## 7 General Conditions

### G1 Copy of licence kept at the premises or plant

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

# Environment Protection Licence

Licence - 13088

## Dictionary

### General Dictionary

<b>3DGM [in relation to a concentration limit]</b>	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
<b>Act</b>	Means the Protection of the Environment Operations Act 1997
<b>activity</b>	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
<b>actual load</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>AM</b>	Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
<b>AMG</b>	Australian Map Grid
<b>anniversary date</b>	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
<b>annual return</b>	Is defined in R1.1
<b>Approved Methods Publication</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>assessable pollutants</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>BOD</b>	Means biochemical oxygen demand
<b>CEM</b>	Together with a number, means a continuous emission monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
<b>COD</b>	Means chemical oxygen demand
<b>composite sample</b>	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
<b>cond.</b>	Means conductivity
<b>environment</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>environment protection legislation</b>	Has the same meaning as in the Protection of the Environment Administration Act 1991
<b>EPA</b>	Means Environment Protection Authority of New South Wales.
<b>fee-based activity classification</b>	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
<b>general solid waste (non-putrescible)</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

# Environment Protection Licence

Licence - 13088

<b>flow weighted composite sample</b>	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
<b>general solid waste (putrescible)</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>grab sample</b>	Means a single sample taken at a point at a single time
<b>hazardous waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>licensee</b>	Means the licence holder described at the front of this licence
<b>load calculation protocol</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>local authority</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>material harm</b>	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
<b>MBAS</b>	Means methylene blue active substances
<b>Minister</b>	Means the Minister administering the Protection of the Environment Operations Act 1997
<b>mobile plant</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>motor vehicle</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>O&amp;G</b>	Means oil and grease
<b>percentile [in relation to a concentration limit of a sample]</b>	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
<b>plant</b>	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
<b>pollution of waters [or water pollution]</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>premises</b>	Means the premises described in condition A2.1
<b>public authority</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>regional office</b>	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
<b>reporting period</b>	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
<b>restricted solid waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>scheduled activity</b>	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
<b>special waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>TM</b>	Together with a number, means a test method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .



# Environment Protection Licence



Licence - 13088

<b>TSP</b>	Means total suspended particles
<b>TSS</b>	Means total suspended solids
<b>Type 1 substance</b>	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
<b>Type 2 substance</b>	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
<b>utilisation area</b>	Means any area shown as a utilisation area on a map submitted with the application for this licence
<b>waste</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>waste type</b>	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non - putrescible), special waste or hazardous waste

Mr Julian Thompson

Environment Protection Authority

(By Delegation)

Date of this edition: 22-July-2009

## End Notes

- 1 Licence varied by notice 1125628, issued on 22-Mar-2011, which came into effect on 22-Mar-2011.
- 2 Licence varied by notice 1516534 issued on 23-Sep-2013
- 3 Licence varied by notice 1557403 issued on 10-Nov-2017

**APPENDIX C**

**Agency Correspondence**

## Fishwick, Sean

---

**From:** Georgia Dragicevic <Georgia.Dragicevic@planning.nsw.gov.au>  
**Sent:** Monday, 19 November 2018 1:04 PM  
**To:** Fishwick, Sean  
**Cc:** Searle, Bradley  
**Subject:** RE: Consultation for Peppertree Hard Rock Quarry Independent Environmental Audit  
**Attachments:** 20180926085836126.pdf

Thank you Shan,

As you may be aware, the Department had endorsed Arcadis to undertake the audit (please see attached).

The Department would specifically like you to pay attention to noise management during the site audit.

Should you have any questions, please call me on 0439 612 137.

Kind Regards,  
Georgia

---

**From:** Fishwick, Sean <Sean.Fishwick@arcadis.com>  
**Sent:** Wednesday, 14 November 2018 12:22 PM  
**To:** Georgia Dragicevic <Georgia.Dragicevic@planning.nsw.gov.au>  
**Cc:** Searle, Bradley <Brad.Searle@arcadis.com>  
**Subject:** Consultation for Peppertree Hard Rock Quarry Independent Environmental Audit

Hi Georgia,

As part of the conditions of consent for the Peppertree Hard Rock Quarry (06\_0074), Boral are required to commission an Independent Environmental Audit. Arcadis have been engaged by Boral to undertake the audit. As part of the audit, consultation is being undertaken with relevant agencies to seek feedback on compliance or other issues that have been identified since the previous Audit (2015). Detailed formal consultation has been attached to this email.

The audit would be undertaken by Bradley Searle as the lead auditor (Principal Environmental Auditor (Certificate No: 113169)) and myself (Sean Fishwick) as the supporting auditor. The on-site audit is currently scheduled for the 21<sup>st</sup> of November 2018.

If you could review the attached document and provide feedback prior to 23<sup>rd</sup> of November 2018 that would be much appreciated. If you have any questions, don't hesitate to get in touch with myself or Brad ([brad.searle@arcadis.com](mailto:brad.searle@arcadis.com)).

Regards,

**Sean Fishwick** | Environmental Consultant | [sean.fishwick@arcadis.com](mailto:sean.fishwick@arcadis.com)  
**Arcadis** | Level 16, 580 George Street, Sydney | NSW 2000 | Australia  
T. + 61 2 8907 2689  
[www.arcadis.com](http://www.arcadis.com)



Be green, leave it on the screen.



Registered office: Level 16, 580 George Street, Sydney NSW 2000 Australia ABN 76 104 485 289

This email and any files transmitted with it are the property of Arcadis and its affiliates. All rights, including without limitation copyright, are reserved. This email contains information that may be confidential and may also be privileged. It is for the exclusive use of the intended recipient(s). If you are not an intended recipient, please note that any form of distribution, copying or use of this communication or the information in it is strictly prohibited and may be unlawful. If you have received this communication in error, please return it to the sender and then delete the email and destroy any copies of it. While reasonable precautions have been taken to ensure that no software or viruses are present in our emails, we cannot guarantee that this email or any attachment is virus free or has not been intercepted or changed. Any opinions or other information in this email that do not relate to the official business of Arcadis are neither given nor endorsed by it.

## Fishwick, Sean

---

**From:** David Zerafa <david.zerafa@dpi.nsw.gov.au>  
**Sent:** Friday, 14 December 2018 10:34 AM  
**To:** Fishwick, Sean  
**Cc:** Ellie Randall; Tim Baker; Water Referrals  
**Subject:** Re: Consultation for Peppertree Hard Rock Quarry Independent Environmental Audit

Hello Sean,

Just a note to let you know that I have received your email.

Due to your tight timeframe, I have been unable to consult with colleagues to confirm but I am not aware of any issues of particular concern having been brought to the attention of NRAR in relation to Peppertree Quarry since the last audit.

Notwithstanding this, I would reiterate that the audit should appropriately review the site water balance in accordance with the relevant consent condition/water management plan to ensure that all water take and water use of both surface and groundwater sources by Peppertree, is appropriately measured, accounted for and authorised where required.

NRAR will look forward to receiving the Audit for review in due course.

Regards David

David Zerafa  
Senior Water Regulation Officer

Natural Resources Access Regulator  
Department of Industry / Lands & Water

NSW Government Offices  
5 O'Keefe Avenue, Nowra  
PO Box 309 Nowra 2541  
Phone (02) 4428 9142 / Mobile 0427 663187  
Email: [david.zerafa@nrar.nsw.gov.au](mailto:david.zerafa@nrar.nsw.gov.au)  
Website: <http://www.industry.nsw.gov.au/water>

On Tue, 11 Dec 2018 at 12:05, Fishwick, Sean <[Sean.Fishwick@arcadis.com](mailto:Sean.Fishwick@arcadis.com)> wrote:

Hi David,

As part of the conditions of consent for the Peppertree Hard Rock Quarry (06\_0074), Boral are required to commission an Independent Environmental Audit. Arcadis have been engaged by Boral to undertake the audit. The audit is being undertaken by Bradley Searle as the lead auditor (Principal Environmental Auditor (Certificate No: 113169)) and myself (Sean Fishwick) as the supporting auditor.

As part of the audit, consultation is being undertaken with relevant agencies to seek feedback on compliance or other issues that have been identified since the previous Audit (2015). If you have any issues or areas on which you would like us to focus during the audit don't hesitate to get in touch with myself or Brad

([brad.searle@arcadis.com](mailto:brad.searle@arcadis.com)). We are hoping to close out the audit before the end of the year. As such, if you could provide feedback by the end of this week / early next week that would be much appreciated.

Kind regards,

**Sean Fishwick** | Environmental Consultant | [sean.fishwick@arcadis.com](mailto:sean.fishwick@arcadis.com)

**Arcadis** | Level 16, 580 George Street, Sydney | NSW 2000 | Australia

T. + 61 2 8907 2689

[www.arcadis.com](http://www.arcadis.com)



Be green, leave it on the screen.



Registered office: Level 16, 580 George Street, Sydney NSW 2000 Australia ABN 76 104 485 289

This email and any files transmitted with it are the property of Arcadis and its affiliates. All rights, including without limitation copyright, are reserved. This email contains information that may be confidential and may also be privileged. It is for the exclusive use of the intended recipient(s). If you are not an intended recipient, please note that any form of distribution, copying or use of this communication or the information in it is strictly prohibited and may be unlawful. If you have received this communication in error, please return it to the sender and then delete the email and destroy any copies of it. While reasonable precautions have been taken to ensure that no software or viruses are present in our emails, we cannot guarantee that this email or any attachment is virus free or has not been intercepted or changed. Any opinions or other information in this email that do not relate to the official business of Arcadis are neither given nor endorsed by it.

---

This message is intended for the addressee named and may contain confidential information. If you are not the intended recipient, please delete it and notify the sender. Views expressed in this message are those of the individual sender, and are not necessarily the views of their organisation.

## Fishwick, Sean

---

**From:** Michael Heinze <Michael.Heinze@epa.nsw.gov.au>  
**Sent:** Friday, 16 November 2018 9:24 AM  
**To:** Fishwick, Sean  
**Cc:** Searle, Bradley  
**Subject:** RE: HPE CM: Consultation for Peppertree Hard Rock Quarry Independent Environmental Audit

Good morning Sean

Thanks for referring this matter on to the EPA for comment.

We are satisfied that the scope adequately covers the areas of concern for the EPA with regard to the Peppertree Quarry, notably the inclusion of compliance with the conditions within EPL 13088. We would also expect a thorough review of project compliance with noise related conditions and those related to air quality.

Regards  
Michael

### Michael Heinze

#### Regional Operations Officer – South East Region

South and West Branch, NSW Environment Protection Authority  
+61 2 6229 7002 +61 0408 695 070

[michael.heinze@epa.nsw.gov.au](mailto:michael.heinze@epa.nsw.gov.au) [www.epa.nsw.gov.au](http://www.epa.nsw.gov.au) [@EPA NSW](https://twitter.com/EPA_NSW)

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



Please send all official electronic correspondence to [queanbeyan@epa.nsw.gov.au](mailto:queanbeyan@epa.nsw.gov.au)

Please note that I do not currently work on Wednesdays

---

**From:** Fishwick, Sean <Sean.Fishwick@arcadis.com>  
**Sent:** Wednesday, 14 November 2018 12:16 PM  
**To:** Michael Heinze <Michael.Heinze@epa.nsw.gov.au>  
**Cc:** Searle, Bradley <Brad.Searle@arcadis.com>  
**Subject:** HPE CM: Consultation for Peppertree Hard Rock Quarry Independent Environmental Audit

Hi Michael,

As part of the conditions of consent for the Peppertree Hard Rock Quarry (06\_0074), Boral are required to commission an Independent Environmental Audit. Arcadis have been engaged by Boral to undertake the audit. As part of the audit, consultation is being undertaken with relevant agencies to seek feedback on compliance or other issues that have been identified since the previous Audit (2015). Detailed formal consultation has been attached to this email.

The audit would be undertaken by Bradley Searle as the lead auditor (Principal Environmental Auditor (Certificate No: 113169)) and myself (Sean Fishwick) as the supporting auditor. The on-site audit is currently scheduled for the 21<sup>st</sup> of November 2018.

If you could review the attached document and provide feedback prior to 23<sup>rd</sup> of November 2018 that would be much appreciated. If you have any questions, don't hesitate to get in touch with myself or Brad ([brad.searle@arcadis.com](mailto:brad.searle@arcadis.com)).

Regards,

**Sean Fishwick** | Environmental Consultant | [sean.fishwick@arcadis.com](mailto:sean.fishwick@arcadis.com)  
**Arcadis** | Level 16, 580 George Street, Sydney | NSW 2000 | Australia  
T. + 61 2 8907 2689  
[www.arcadis.com](http://www.arcadis.com)



Be green, leave it on the screen.



Registered office: Level 16, 580 George Street, Sydney NSW 2000 Australia ABN 76 104 485 289

This email and any files transmitted with it are the property of Arcadis and its affiliates. All rights, including without limitation copyright, are reserved. This email contains information that may be confidential and may also be privileged. It is for the exclusive use of the intended recipient(s). If you are not an intended recipient, please note that any form of distribution, copying or use of this communication or the information in it is strictly prohibited and may be unlawful. If you have received this communication in error, please return it to the sender and then delete the email and destroy any copies of it. While reasonable precautions have been taken to ensure that no software or viruses are present in our emails, we cannot guarantee that this email or any attachment is virus free or has not been intercepted or changed. Any opinions or other information in this email that do not relate to the official business of Arcadis are neither given nor endorsed by it.

-----  
-----

This email is intended for the addressee(s) named and may contain confidential and/or privileged information. If you are not the intended recipient, please notify the sender and then delete it immediately. Any views expressed in this email are those of the individual sender except where the sender expressly and with authority states them to be the views of the Environment Protection Authority.

PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL



## Fishwick, Sean

---

**From:** Malcolm Hughes <Malcolm.Hughes@waternsw.com.au>  
**Sent:** Friday, 14 December 2018 12:19 PM  
**To:** Fishwick, Sean  
**Cc:** Girja Sharma  
**Subject:** FW: Consultation for Peppertree Hard Rock Quarry Independent Environmental Audit

Good Afternoon Mr Fishwick

Thank you for providing WaterNSW with the opportunity to provide advice on matters for consideration in the audit.

WaterNSW's interest is focused on water quality and in particular the importance of ensuring that impacts offsite are prevented.

WaterNSW therefore requests that Arcadis assess the following:

1. Implementation and adequateness of the Water Management Plan.
2. Performance of the water quality control measures aimed at preventing sediment laden water from exiting the site. This should include an assessment as to whether the "dirty water" dams are designed, constructed and maintained to accommodate a 1 in 100 year ARI 24-hour event.
3. Performance of the systems managing human wastewater.
4. Implementation and adequateness of the Biodiversity and Rehabilitation Management Plan.
5. Implementation of adaptive management measures required to address water quality (if any are required).
6. Compliance with the water related requirements of the EPL and any requirements pursuant to the *Water Management Act 2000*.

WaterNSW also requests Arcadis assess whether the quarry is being managed so as to have a neutral or beneficial effect on water quality.

I am happy to discuss the above if you require an clarification.

Regards  
Malcolm

Malcolm Hughes  
Manager Catchment Protection



Level 14, 169 Macquarie Street, Parramatta NSW 2150  
PO Box 398, Parramatta NSW 2124  
T: 02 9865 2520 M: 0427 466 934  
[malcolm.hughes@waternsw.com.au](mailto:malcolm.hughes@waternsw.com.au)  
[www.waternsw.com.au](http://www.waternsw.com.au)

---

**From:** Fishwick, Sean <[Sean.Fishwick@arcadis.com](mailto:Sean.Fishwick@arcadis.com)>  
**Sent:** Tuesday, 11 December 2018 12:05 PM

To: Ravi Sundaram <[ravi.sundaram@waterNSW.com.au](mailto:ravi.sundaram@waterNSW.com.au)>

Subject: Consultation for Peppertree Hard Rock Quarry Independent Environmental Audit

Hi Ravi,

As part of the conditions of consent for the Peppertree Hard Rock Quarry (06\_0074), Boral are required to commission an Independent Environmental Audit. Arcadis have been engaged by Boral to undertake the audit. The audit is being undertaken by Bradley Searle as the lead auditor (Principal Environmental Auditor (Certificate No: 113169)) and myself (Sean Fishwick) as the supporting auditor.

As part of the audit, consultation is being undertaken with relevant agencies to seek feedback on compliance or other issues that have been identified since the previous Audit (2015). If you have any issues or areas on which you would like us to focus don't hesitate to get in touch with myself or Brad ([brad.searle@arcadis.com](mailto:brad.searle@arcadis.com)). We are hoping to close out the audit before the end of the year. As such, if you could provide feedback by the end of this week / early next week that would be much appreciated.

Kind regards,

**Sean Fishwick** | Environmental Consultant | [sean.fishwick@arcadis.com](mailto:sean.fishwick@arcadis.com)

**Arcadis** | Level 16, 580 George Street, Sydney | NSW 2000 | Australia

T. + 61 2 8907 2689

[www.arcadis.com](http://www.arcadis.com)



Be green, leave it on the screen.



Registered office: Level 16, 580 George Street, Sydney NSW 2000 Australia ABN 76 104 485 289

This email and any files transmitted with it are the property of Arcadis and its affiliates. All rights, including without limitation copyright, are reserved. This email contains information that may be confidential and may also be privileged. It is for the exclusive use of the intended recipient(s). If you are not an intended recipient, please note that any form of distribution, copying or use of this communication or the information in it is strictly prohibited and may be unlawful. If you have received this communication in error, please return it to the sender and then delete the email and destroy any copies of it. While reasonable precautions have been taken to ensure that no software or viruses are present in our emails, we cannot guarantee that this email or any attachment is virus free or has not been intercepted or changed. Any opinions or other information in this email that do not relate to the official business of Arcadis are neither given nor endorsed by it.

## Fishwick, Sean

---

**From:** Denzil Sturgiss <Denzil.Sturgiss@goulburn.nsw.gov.au>  
**Sent:** Wednesday, 14 November 2018 1:01 PM  
**To:** Fishwick, Sean  
**Subject:** Re: Consultation for Peppertree Hard Rock Quarry Independent Environmental Audit

How's Sean

I haven't been aware of any issues but if the Audit suspects any problem I would be happy to assist!!!  
Cr Denzil Sturgiss

Sent from my iPad

On 14 Nov. 2018, at 12:20 pm, Fishwick, Sean <[Sean.Fishwick@arcadis.com](mailto:Sean.Fishwick@arcadis.com)> wrote:

Hi Denzil,

As part of the conditions of consent for the Peppertree Hard Rock Quarry (06\_0074), Boral are required to commission an Independent Environmental Audit. Arcadis have been engaged by Boral to undertake the audit. As part of the audit, consultation is being undertaken with relevant agencies to seek feedback on compliance or other issues that have been identified since the previous Audit (2015). Detailed formal consultation has been attached to this email.

The audit would be undertaken by Bradley Searle as the lead auditor (Principal Environmental Auditor (Certificate No: 113169)) and myself (Sean Fishwick) as the supporting auditor. The on-site audit is currently scheduled for the 21<sup>st</sup> of November 2018.

If you could review the attached document and provide feedback prior to 23<sup>rd</sup> of November 2018 that would be much appreciated. If you have any questions, don't hesitate to get in touch with myself or Brad ([brad.searle@arcadis.com](mailto:brad.searle@arcadis.com)).

Regards,

**Sean Fishwick** | Environmental Consultant | [sean.fishwick@arcadis.com](mailto:sean.fishwick@arcadis.com)  
**Arcadis** | Level 16, 580 George Street, Sydney | NSW 2000 | Australia  
T. + 61 2 8907 2689  
[www.arcadis.com](http://www.arcadis.com)

<image001.jpg>

Be green, leave it on the screen.

<image002.png><image003.png>

Registered office: Level 16, 580 George Street, Sydney NSW 2000 Australia ABN 76 104 485 289

This email and any files transmitted with it are the property of Arcadis and its affiliates. All rights, including without limitation copyright, are reserved. This email contains information that may be confidential and may also be privileged. It is for the exclusive use of the intended recipient(s). If you are not an intended recipient, please note that any form of distribution, copying or use of this communication or the information in it is strictly prohibited and may be unlawful. If you have received this communication in error, please return it to the sender and then delete the email and destroy any copies of it. While reasonable precautions have been taken to ensure that no software or viruses are present in our emails, we cannot guarantee that this email or any attachment is virus free or has not been intercepted or changed. Any opinions or other information in this email that do not relate to the official business of Arcadis are neither given nor endorsed by it.

<Peppertree Hard Rock Quarry - IEA -Goulburn Mulwaree Council Consultation.pdf>

## APPENDIX D

### Compliance with the Project Approval (2018)

The table below lists all conditions contained within the Project Approval, including those added / removed through modifications. Changes resulting from modifications have been colour coded as follows:

- Mod 2 (2011)
- Mod 3 (2012)
- Mod 4 (2016)

Table A- 1

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
<b>Schedule 2: Administrative Conditions</b>					
<b>Obligation to Minimise Harm to the Environment</b>					
1		The Proponent <b>must</b> implement all practicable measures to prevent or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.	Environmental controls and management plans	<b>Compliant</b>	-
<b>Terms of Approval</b>					
2		The Proponent must carry out the project: (a) generally in accordance with the EA, EA (Mod 1), EA (Mod 2), EA (Mod 3) and EA (Mod 4); and (b) in accordance	2018 Audit report	<b>Compliant</b>	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		with the Project Layout Plan and the conditions of this approval. Note: The Project Layout Plan is included in Appendix 2			
3		If there is any inconsistency between the documents in condition 2(a), the most recent document must prevail to the extent of the inconsistency. The conditions of this approval shall prevail over the documents in condition 2(a) to the extent of any inconsistency	N/A	N/A	-
4		The Proponent must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval (including any stages of these documents); (b) any reviews, reports or audits commissioned by the Department regarding compliance with this approval; and (c) the implementation of any actions or measures contained in these documents	DP&E management plan reviews were sighted. Boral have adequately addressed DP&E comments.	<b>Compliant</b>	-
<b>Limits on Approval</b>					
5		The Proponent may carry out quarrying operations on the site until 31 December 2038. <i>Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of the Secretary. Consequently, this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the rehabilitation of the site and those additional undertakings have been carried out to a satisfactory standard</i>	Quarrying operations are ongoing at the site and are planned to continue in accordance with this condition.	<b>Compliant</b>	-
6		The Proponent <b>must</b> not transport more than 3.5 million tonnes of quarry products from the site in any calendar year.	Train loadout manifest – tonnage records (QRS).	<b>Compliant</b>	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			Screenshot of tonnages records provided. On average around 220,000 tonnes per month, around 2.6 million tonnes per year		
7		All quarry products must normally be transported from the site by rail. However, with the written approval of the Secretary, the Proponent may transport quarry products by road in an emergency or in other limited and exceptional circumstances.	Some product transported by road. Evidence of approval letters from the Secretary were sighted during the audit for these movements.  All non-rail movements also recorded in the AEMR.	<b>Compliant</b>	-
<b>Structural Adequacy</b>					
8		The Proponent must ensure that all new buildings and structures on the site are constructed in accordance with the relevant requirements of the BCA. <i>Notes:</i> • Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for any building works. • Part 8 of the EP&A Regulation sets out the detailed requirements for the certification of development	A work shed is currently being constructed at the site. Consultation with internal planning officers identified that additional approval was not required.	<b>Compliant</b>	-
<b>Demolition</b>					

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
9		The Proponent <b>must</b> ensure that all demolition work on site is carried out in accordance with AS 2601-2001: The Demolition of Structures, or its latest version.	No demolition required since last audit.	<b>Not triggered</b>	-
<b>Protection of Public Infrastructure</b>					
10		The Proponent <b>must</b> : (a) repair, or pay all reasonable costs associated with repairing any public infrastructure that is damaged by the project; and (b) relocate, or pay all reasonable costs associated with relocating any public infrastructure that needs to be relocated as a result of the project.	No repairs have been required to public infrastructure.  No public infrastructure has required relocation.	<b>Not triggered</b>	-
<b>Operations of Plant and Equipment</b>					
11		The Proponent <b>must</b> ensure that all plant and equipment used at the site is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient condition.	Plant maintenance and operation is undertaken in accordance with SWMS developed for each task., Maintenance timing is controlled by the Electronic Assessment Management System. Current work orders report and SWMS were sighted.	<b>Compliant</b>	-
12		(Deleted)	-	-	-



Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
<b>Schedule 3: Environmental Performance Conditions</b>					
<b>General Extraction and Processing Provisions</b>					
1	Identification of Boundaries	<p>Prior to the commencement of construction, or as otherwise directed by the Secretary, the Proponent must:</p> <p>(a) engage an independent registered surveyor to survey the boundaries of the approved limit of extraction;</p> <p>(b) submit a survey plan of these boundaries to the Secretary; and</p> <p>(c) ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits.</p>	<p>Sighted an email and report showing engagement of surveyor.</p> <p>A plan of the extraction area was prepared by Construction Surveys Pty Ltd and approved by registered surveyor Craig Stratton in April 2009. The plan was submitted to Kane Winwood at DP&amp;E on the 17<sup>th</sup> December 2010.</p> <p>The extraction boundaries are clearly marked with orange pegs. Extraction was within these approved boundaries.</p>	<b>Compliant</b>	-
1A	Identification of Boundaries	<p>The proponent must: (a) prior to the commencement of construction of the Southern Overburden Emplacement Area, or as otherwise agreed by the Secretary, engage an independent registered surveyor to survey the boundary of the emplacement area and submit a survey plan of this boundary to the Secretary; and (b) ensure that, during its construction and use, the boundary of the Southern Overburden Emplacement area is clearly marked in a manner that</p>	<p>Sighted an email and report showing engagement of surveyor.</p> <p>A plan of the extraction area was prepared by Craven, Elliston &amp; Hayes Pty Ltd and</p>	<b>Compliant</b>	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		allows operating staff and inspecting officers to clearly identify its location. <i>Note: The boundary of the Southern Overburden Emplacement Area is shown on the figure in Appendix 2.</i>	approved by registered surveyor Matthew Bruce Smith in April 2017. The plan was submitted to Genevieve Seed, Sarah Fabian and Paul Rutherford at DP&E on the 26 <sup>th</sup> April 2017.  The extraction boundaries were investigated during the site visit. The boundaries are clearly marked with pegs. Extraction was within these approved boundaries.		
<b>Noise</b>					
2	Construction of Bunds	In carrying out the construction of the noise bunds, the Proponent <b>must</b> : (a) comply with the construction noise criteria in the Environmental Noise Control Manual 1994 for the first three months of the construction work; and (b) thereafter, comply with the daytime operational noise criteria in condition 4.	(a) No construction of noise bunds has been undertaken within the audit period.  (b) Measurements above the noise criteria in Condition 4 were recorded during routine monitoring. Exceedances were reported to DP&E and ERM was commissioned to conduct monitoring to identify the source of exceedances, ERM identified that the exceedances occurred	<b>(a) Not Triggered</b> <b>(b) Compliant</b>	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			<p>in the early morning. Todoroski Air Sciences (TAS) was then engaged to review weather conditions at the time exceedances were recorded, TAS identified that most exceedances did not occur during inversion conditions (as defined in Appendix 7 of the Consolidate Project Approval). However, they did occur during non-standard weather events.</p> <p>A penalty notice was issued by DP&amp;E relating to the event for the exceedance of criteria as specified in the MCoA. Boral appealed the penalty on the grounds that the CoA Schedule 3, Condition 4 states that noise generated by the development is to be measured in accordance with the relevant requirements of the Industrial Noise Policy (INP). Section 11.1.3 of the INP states that exceedances of criteria are not a non-compliance with a consent when 'the noise was</p>		

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			<p>increased by extreme, non-standard weather effects'. As identified by TAS, the measurement above criteria occurred during a non-standard weather event. Upon review DP&amp;E revoked the penalty notice and issued an official caution as well as a requirement to commence a voluntary undertaking to avoid ongoing breaches of approval.</p> <p>A voluntary undertaking to investigate exceedances has been completed by Boral and identify management measures. The noise assessment undertaken as part of the voluntary undertaking was prepared by ERM in October 2017. Outcomes included applying noise dampening 'curtains' to the primary bin (which has since been implemented), and the implementation of real time</p>		

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			<p>noise monitoring which is proposed to be implemented.</p> <p>As the exceedances were demonstrated to not be considered non-compliances, and a strategy has been implemented to avoid on going exceedances Arcadis consider Boral to be compliant with this condition.</p>		
3	Construction of Noise Management Plan	<p>The Proponent must prepare and implement a Construction Noise Management Plan for the project to the satisfaction of the Secretary. This plan must be submitted to the Secretary for approval prior to the commencement of construction, and include:</p> <p>(a) a detailed description of the measures that would be implemented to achieve the construction noise limits in the Environmental Noise Control Manual 1994 and the operational noise criteria in condition 4;</p> <p>(b) a community notification protocol for the proposed construction activities;</p> <p>(c) a description of the measures that would be implemented where the construction noise limits and/or operational noise limits are unlikely to be achieved or are not being achieved; and</p> <p>(d) details of who would be responsible for monitoring, reviewing and implementing the plan.</p>	No construction during this period.	<b>Not triggered</b>	-
4	Operational Noise Impact	<p>The Proponent must ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 1 at any residence on privately-owned land.</p>	Measurements above the noise criteria in Condition 4 were recorded during routine	<b>Compliant</b>	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
	Assessment Criteria	<p>Table 1 Residential Receiver/DayLAeq(15min)/EveLAeq(15min)/NighLtAeq(15min)/NightA1(1 min) R3(5)/35/35/35/45 R2 (6)/35/35/35/45 R8 (16)/41/35/35/45 Any other residence on privately owned land/41/35/35/45 Any other noise sensitive location/35/35/35/45</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>• Residential receiver locations are shown on the plan in Appendix 3.</li> <li>• Receiver numbers in parentheses are those identified in the approval prior to the notification of Modification 4 in 2016.</li> </ul> <p>Noise generated by the development is to be measured in accordance with the relevant requirements of the Industrial Noise Policy (as may be updated from time-to-time). Appendix 7 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.</p> <p>However, the noise criteria in Table 1 do not apply if the Proponent has an agreement with the owner/s of the relevant residence or land to exceed the noise criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p>	<p>monitoring. Exceedances were reported to DP&amp;E and ERM was commissioned to conduct monitoring to identify the source of exceedances, ERM identified that the exceedances occurred in the early morning. Todoroski Air Sciences (TAS) was then engaged to review weather conditions at the time exceedances were recorded, TAS identified that most exceedances did not occur during inversion conditions (as defined in Appendix 7 of the Consolidate Project Approval). However, they did occur during non-standard weather events.</p> <p>A penalty notice was issued by DP&amp;E relating to the event for the exceedance of criteria as specified in the MCoA. Boral appealed the penalty on the grounds that the CoA Schedule 3, Condition 4 states that noise generated by the development is to be measured in accordance with the relevant</p>		

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			<p>requirements of the Industrial Noise Policy (INP). Section 11.1.3 of the INP states that exceedances of criteria are not a non-compliance with a consent when 'the noise was increased by extreme, non-standard weather effects'. As identified by TAS, the measurement above criteria occurred during a non-standard weather event. Upon review DP&amp;E revoked the penalty notice and issued an official caution as well as a requirement to commence a voluntary undertaking to avoid ongoing breaches of approval.</p> <p>A voluntary undertaking to investigate exceedances has been completed by Boral and identify management measures. The noise assessment undertaken as part of the voluntary undertaking was prepared by ERM in October 2017. Outcomes included applying noise dampening</p>		

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			<p>'curtains' to the primary bin (which has since been implemented), and the implementation of real time noise monitoring which is proposed to be implemented.</p> <p>As the exceedances were demonstrated to not be considered non'-compliances, and a strategy has been implemented to avoid on going exceedances Arcadis consider Boral to be compliant with this condition.</p>		
5	Land Acquisition Criteria	<p>If the noise generated by the project exceeds the criteria in Table 2, the Proponent must, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 6-8 of Schedule 4.</p> <p>Table 2 Residential Receiver/DayLAeq(15 min)/Evening/NightLAeq(15 min) R3 (5)/40/40 R2 (6)/40/40 R8 (16)/44/44 16/44/44</p>	<p>No written requests for acquisition have been received. No material exceedances of criteria have been recorded.</p>	<b>Not triggered</b>	-
6		(Deleted)	N/A	-	-



Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
7	Additional Noise Mitigation Measures	(Deleted)	N/A	-	-
8		(Deleted)	N/A	-	-
9	Continuous Improvement	<p>The Proponent must:</p> <ul style="list-style-type: none"> <li>(a) implement best practice noise management, including all reasonable and feasible noise mitigation measures to minimise the noise generated by the project;</li> <li>(b) investigate ways to minimise the noise generated by the project;</li> <li>(c) operate a comprehensive noise management system that uses a combination of predictive meteorological forecasting and noise monitoring data to guide the day to day planning of quarrying operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval;</li> <li>(d) minimise noise impacts during adverse weather conditions; and</li> <li>(e) report on these investigations and the implementation and effectiveness of these measures in the Annual Review, to the satisfaction of the Secretary.</li> </ul>	<p>Sighted Boral's noise and vibration monitoring program (NBMP). The NBMP provides procedures for monitoring and assessing noise impacts from the quarry.</p> <p>The AEMR reports on noise investigations and results from the project. Satisfaction of the Secretary with the outcomes has been confirmed through formal approval by DP&amp;E of AEMRs.</p> <p>The NBMP generally meets the criteria as outlined in this condition. However, the plan does not include a section on best practice (as referenced in the condition).</p>	Administrative non-compliance	Low

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
10	Noise Management Plan	The Proponent <b>must</b> prepare a Noise Management Plan for the project to the satisfaction of the <b>Secretary</b> . This plan must be prepared in consultation with EPA and submitted to the Secretary for approval by the end of March 2012, and must: (a) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval; (b) describe the noise management system; (c) include a noise monitoring program that: • supports the noise management system; NSW Government 8 Department of Planning • provides information to evaluate the performance of the project; • includes a protocol for determining exceedances of relevant conditions of this approval; • provides for the use of real-time and/or supplementary attended monitoring measures, if directed by the Secretary; • includes regular attended and unattended monitoring at appropriate locations, including at receiver locations R4 and R17; and • includes a program to characterise and measure low frequency noise (dB(C)) emissions. (d) include a community notification protocol for the proposed construction activities; and (e) detail who would be responsible for monitoring, reviewing and implementing the plan. The Proponent must implement the approved management plan as approved from time to time by the Secretary.	<p>Evidence of DP&amp;E approval for the NBMP has been sighted. The NBMP has been updated in March 2018.</p> <p>The NBMP has been developed in compliance with the condition and adequately addresses all assessment criteria. However, the following observations have been made:</p> <ul style="list-style-type: none"> <li>• The plan should be updated to reflect the recent changes to noise mitigation brought about from the Voluntary Undertaking.</li> <li>• A number of references are still made to activities that are to be completed in 2017. It is recommended that when the Noise Management Plan is next updated, all dated references are checked and updated / removed where relevant.</li> </ul>	<b>Observation</b>	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			<ul style="list-style-type: none"> <li>Table 2 in the plan should be updated to reference the correct condition.</li> </ul>		
11	Hours of Operation	The Proponent <b>must</b> comply with the hours of operation in Table 3. Activity/Day/Time Construction Works/M-F/7am-6pm Construction Works/Sat/8am-1pm Construction works/S&PH/none Topsoil/overburden removal/emplacement/any day/7am-7pm Blasting/M-F/9am-5pm Blasting/S&PH/None In-pit activities/any day/5am - 11pm Out-of pit activities/any day/24 hours	Data is recorded in the site control room that identifies start and finish times.  Running times output spreadsheet sighted.	<b>Compliant</b>	-
11A	Hours of Operation	Between the hours of 5:00am to 7:00am and 7:00pm to 11:00pm the: (a) in-pit crusher must not operate above RL 555; and (b) mobile plant in the pit, including excavators, front-end loaders and trucks, must not operate above RL 570.	a) The mobile in pit crusher operates within the lowest level of the active pit floor. This area has been surveyed by photomapping services to be approximately RL555.  b) As mobile plant can be relocated to operate anywhere within the pit it is not possible to	<b>a) Compliant</b> <b>b) Not verified</b>	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			verify whether or not they are operating below RL570 in accordance with the condition.		
<b>Blasting and Vibration</b>					
12	Airblast Overpressure Criteria	The Proponent <b>must</b> ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in Table 4 at any residence on privately-owned land. Airblast overpressure level (dB(Lin Peak))/Allowable exceedance 115/5% of the total number of blasts over a period of 12 months 120/0%	Blast monitoring results up to May 2018 were review in AEMR. There were no exceedances at the sensitive receiver.	<b>Compliant</b>	-
13	Ground Vibration Criteria	The Proponent <b>must</b> ensure that the ground vibration level from blasting at the project does not exceed the criteria in Table 5 at any residence or sensitive receiver on privately-owned land. Peak particle velocity (mm/s)/Allowable exceedance 5/5% of the total number of blasts over a period of 12 months 10-0%	Blast monitoring results as presented within the AEMR were reviewed. No exceedances were identified.	<b>Compliant</b>	-
14	Operating Conditions	The Proponent must implement best blasting practice to: (a) ensure that no flyrock leaves the site; (b) protect the safety of people, property, and livestock; and	Blast monitoring locations are identified in the Noise and Blast Management Plan. The Plan outlines best management	<b>Compliant</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		(c) minimise the dust and fume emissions from blasting on the site, to the satisfaction of the Secretary.	practice at the Quarry including ongoing studies and reviews to identify areas of improvement in noise, dust and fume emissions from blasting.		
15	Public Notice	The Proponent must: (a) notify the landowner/occupier of any residence within 2 kilometres of the quarry pit who registers an interest in being notified about the blasting schedule on site; (b) operate a blasting hotline, or alternative system agreed to by the Secretary, to enable the public to get up-to-date information on blasting operations at the project; and (c) keep the public informed about this hotline (or any alternative system), to the satisfaction of the Secretary.	Sighted communication with residents including direct contact and 'Discover Marulan' newsletters. Three residents are kept informed at their request. Two of these by email, one by phone.  Discover Marulan Newsletter contains update information and hotline contact details.	<b>Compliant</b>	-
16	Monitoring	The Proponent must prepare and implement a Blast Monitoring Program for the project to the satisfaction of the Secretary. This program must: (a) be submitted to the Secretary for approval prior to the commencement of construction; (b) be prepared in consultation with the EPA; and (c) monitor the performance of the project against the relevant blasting criteria.  The Proponent must implement the approved monitoring program as approved from time to time by the Secretary	The BMP is included in section 4 of the NBMP and has been developed in compliance with the condition. Evidence of DP&E has review and approval has been sighted.  The BMP has been developed in compliance with the condition	<b>Compliant</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			and adequately addresses all assessment criteria.		
<b>Air Quality</b>					
17	Air Quality Assessment Criteria	<p>The Proponent must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not exceed the criteria listed in Tables 6, 7 and 8 at any residence on privately owned land, or on more than 25 percent of any privately owned land.</p> <p>Table 6: Long Term Impact Assessment Criteria for PM Pollutant/Averaging period/Criterion Total suspended (TSP) matter/Annual/90ug/m3 Particulate Matter &lt; 10um (PM10)/Annual/30ug/m3</p> <p>Table 7: Short Term Impact Assessment for Criteria of PM Pollutant/Averaging period/Criterion Particulate Matter &lt; 10um (PM10)/24 hour/50 ug/m3</p> <p>Table 8: Long Term Impact Assessment for Criteria of Deposited Dust Pollutant/Averaging period/Max increase in deposited dust level/Max total deposited dust level Deposited dust/Annual/2g/m2/month/4g/m2/month</p>	<p>AEMR for the 2015 period indicates an exceedance of the annual average dust deposition criteria and four marginal exceedances of the 24-hr short term PM<sub>10</sub> criteria (at the monitoring location but not necessarily at conditioned receiver location).</p> <p>AEMR for the 2016 period indicates an exceedance of PM<sub>10</sub> criteria on two occasions (at the monitoring location but not necessarily at conditioned receiver location).</p> <p>AEMR for 2017 period indicates an exceedance of the annual average dust deposition criteria and five exceedances of the 24-hr short term PM<sub>10</sub>. (at the monitoring location but not necessarily at conditioned receiver location)</p>	Observation	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			<p>Exceedances (at the monitoring location) across the audit period for 24-hr short term PM<sub>10</sub> criteria were investigated. Based on wind direction and location of active quarry operations, these were not considered to be representative of the quarry activities over the time period.</p> <p>A discussion relating to reporting of exceedances has been provided against condition 8 in schedule 5.</p> <p>Boral undertook a review of dust deposition gauges for the last three years to identify the root cause of non-compliances (through Todoroski Air Sciences). They found that higher than usual levels have occurred during the Spring and Summer months for EPL monitoring location D1. In most cases, these are also associated with low levels of ash and therefore high levels of organics. The organic matter is primarily bird related.</p>		

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			<p>Air quality monitors are located within Boral's property boundary. When exceedances are modelled to receiver locations as specified in this condition i.e. 'at any residence on privately owned land, or on more than 25 percent of any privately owned land' the dust deposition levels are found to be below criteria.</p> <p>It is recommended that discussion with EPA and DP&amp;E are continued regarding the relocation of these monitoring points to as more representative area that aligns with the requirements of the MCoA. Alternatively, this condition of consent may require modification to align with the current arrangement and ensure that it can be implemented.</p>		
18	Land Acquisition Criteria	If particulate matter emissions generated by the project exceed the criteria in Tables 9, 10, and 11 at any residence on privately-owned land, or on more than 25 percent of any privately owned land, then upon written request for acquisition from the landowner, the Proponent must acquire the land in accordance with the procedures in conditions 6-7 of schedule 4.	Whilst exceedances of PM <sub>10</sub> criteria have been recorded (at the monitoring location) they have been investigated and are thought to not be representative	<b>Not Triggered</b>	



Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		<p>Table 9: Long Term Land Acquisition Criteria for PM Pollutant/Averaging Period/Criterion TSP matter/Annual/90 ug/m3 PM10/Annual/30ug/m3</p> <p>Table 10: Short Term Land Acquisition Criteria for PM Pollutant/Averaging Period/Criterion PM10/24 hour/150ug/m3 PM10/24 hour/50ug/m3</p> <p>Table 11: Long Term Land Acquisition Criteria for Deposited Dust Pollutant/Averaging period/Max increase in deposited dust level/Max total deposited dust level Deposited Dust/Annual/2 g/m2/month/4 g/m3/month</p>	<p>of quarry activities. Exceedances for deposited dust criteria have been recorded at monitoring locations within the boundary of the quarry. Todoroski Air Sciences was commissioned to investigate these exceedances. Results from monitoring locations were modelled to extrapolate the impacts on areas referenced within the condition i.e. at any residence on privately-owned land, or on more than 25 percent of any privately owned land. The modelling demonstrated that operations would not result in exceedances of criteria at residences and on privately owned land.  Regardless, no written requests for acquisition received.</p>		
19	Operation Conditions	<p>The Proponent must: (a) implement best management practice on site, including all reasonable and feasible measures to minimise the off-site odour, fume and dust emissions generated by the project; (b) minimise any visible air pollution generated by the project;</p>	<p>Sighted the AQMP and DP&amp;E approval. The AQMP generally meets the criteria as outlined in this condition. Some best management practice measures</p>	<b>Administrative non-compliance</b>	Low

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		(c) minimise the surface disturbance of the site generated by the project; and (d) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and air quality monitoring data to guide the day to day planning of quarrying operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval; to the satisfaction of the Secretary.	that have been implemented including the use of weather zone forecasting system for wind to identify high risk days and the application of citrus based dust suppression polymers to exposed areas.  However, the plan has not been kept up to date with current best practice in relation to air quality monitoring.		
20	Air Quality Management Plan	The Proponent must prepare and implement a detailed Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with EPA and submitted to the Secretary by the end of March 2012; (b) describe the measures that would need to be implemented to ensure compliance with the relevant conditions of this approval; (c) include a program for the implementation of the measures referred to in (b) above; and (d) include an air quality monitoring program that: · uses a combination of high volume samplers and dust deposition gauges to evaluate the performance of the project; · supports the air quality management system; · provides information to evaluate the performance of the project; · includes a protocol for determining exceedances of relevant conditions of this approval; and · provides for the use of real-time monitoring measures, if directed by the	AQMP and relevant DP&E approval has been sighted.  AQMP has been updated in April 2017.  The AQMP has been developed in compliance with the condition and adequately addresses all assessment criteria.	<b>Compliant</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		Secretary. The Proponent must implement the approved management plan as approved from time to time by the Secretary			
<b>Meteorological Monitoring</b>					
21		For the life of the project, the Proponent <b>must</b> ensure that there is a meteorological station in the vicinity of the site that: (a) complies with the requirements in the <i>Approved Methods for Sampling of Air Pollutants in New South Wales</i> guideline; and (b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy.	Monitoring station is present on site since 2012. Weather station has been routinely calibrated approximately every two months since commencement. The weather station provides continuous real time measurements of temperature lapse rate in accordance with the NSW INP.	<b>Compliant</b>	-
<b>Surface and Ground Water</b>					
22	Water Supply	Prior to the commencement of construction, the Proponent must obtain the necessary approvals for the project under the Water Act 1912.	Water licence 10WA116000 sighted for use of Ground Water, expires in 2026. Water Licence 10WA102571 for use of surface water source (Bywash Dam), expires 2024.	<b>Compliant</b>	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
23	Discharges	Except as may be expressly provided for by an EPL, the Proponent must not discharge any dirty water from the quarry or ancillary operational areas. <i>Note: The Water Management Act 2000 may apply to the project. The Proponent must consult with DPI Water on the relevant approvals at the time the application is made.</i>	Review of AEMR and EPL annual returns did not identify any discharges of dirty water.	<b>Compliant</b>	
23A	Discharges	The Proponent must prepare an onsite wastewater report for the proposed effluent management system consistent with the requirements of <i>WaterNSW – “Developments in Sydney’s Drinking Water Catchment” – Water Quality Information Requirements, 2011</i> . The effluent management system must be designed and constructed to be in accordance with this onsite wastewater report and its design must be approved by Council prior to construction.	On site wastewater assessment and system design report prepared.	<b>Compliant</b>	
24	Tangarang Creek Environmental Flow	The Proponent <b>must</b> provide an environmental flow to Tangarang Creek equivalent to 10% of average daily flows. Details of the management of these environmental flows must be included in the Site Water Balance for the project (see below).	Details of Environmental Flows maintained in AEMR environmental flow compliance spreadsheet. Records show that flows exceed the minimum 10% required.	<b>Compliant</b>	-
25	Sediment Dams	The Proponent <b>must</b> ensure that: (a) critical structures such as “dirty water” dams are designed, constructed and maintained to accommodate a 1 in 100-year ARI 24-hour event; and (b) other dams and water management structures are designed, constructed and maintained to accommodate a 1 in 20-year ARI 24-hour event.	Structures have been designed to accommodate a 1 in 100-year ARI 24-hour event. As-built drawings sighted showing dams constructed in accordance with design. Structures Maintained through daily and weekly	<b>Compliant</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			<p>inspections as well as quarterly review of erosion and sediment controls.</p> <p>Due to lack of rainfall recently a drought plan has been developed and sighted which includes water saving measures that guide ongoing management of water structures.</p>		
26	Water Management Plan	<p>The Proponent must prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be submitted to the Secretary for approval prior to the commencement of construction;</p> <p>(b) be prepared in consultation with the DPI Water, EPA and WaterNSW; and</p> <p>(c) include a:</p> <ul style="list-style-type: none"> <li>• Site Water Balance;</li> <li>• Erosion and Sediment Control Plan;</li> <li>• Surface Water Monitoring Program;</li> <li>• Ground Water Monitoring Program; and</li> <li>• Surface and Ground Water Response Plan to address any potential adverse impacts associated with the project.</li> </ul> <p>The Proponent must implement the approved management plan as approved from time to time by the Secretary.</p>	<p>WMP and DP&amp;E approval sighted. The WMP has been developed in compliance with the condition and adequately addresses all assessment criteria.</p> <p>Site water balance for the plan has been developed by Advisian and is currently in the process of being updated.</p>	<b>Compliant</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
27	Site Water Balance	The Site Water Balance <b>must</b> : (a) include details of all water extracted (including makeup water), dewatered, transferred, used and/or discharged by the project; and (b) describe measures to minimise water use by the project.	WMP includes a site water balance. Establishing and maintaining a site water balance is an ongoing activity proposed in the AEMR.  The site water balance for the plan has been developed by Advisian and is currently in the process of being updated. The site water balance has been designed to address the MCoA and includes details of all water extracted (including makeup water), dewatered, transferred, used and/or discharged by the project and describes measures to minimise water use.	<b>Compliant</b>	
28	Erosion and Sediment Control	The Erosion and Sediment Control Plan <b>must</b> : (a) be consistent with the requirements of Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition, 2004 (Landcom); (b) identify activities that could cause soil erosion and generate sediment; (c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters; (d) describe the location, function, and capacity of erosion and sediment control structures; and	Erosion and Sediment Control Plan sighted (within the WMP) The ESCP has been developed in compliance with the condition and adequately addresses all assessment criteria.	<b>Compliant</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		(e) describe what measures would be implemented to maintain (and if necessary decommission) the structures over time.			
29	Surface Water Monitoring	<p>The Surface Water Monitoring Program must include:</p> <ul style="list-style-type: none"> <li>(a) detailed baseline data on surface water flows and quality in Tangarang Creek and Barbers Creek;</li> <li>(b) surface water impact assessment criteria;</li> <li>(c) a program to monitor surface water flows and quality;</li> <li>(d) a protocol for the investigation of identified exceedances of the surface water impact assessment criteria; and</li> <li>(e) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.</li> </ul>	<p>Surface water monitoring program including assessment criteria, protocol for investigation of exceedances sighted within the approved WMP. The WMP also contains directives on monitoring the effectiveness of the ESCP.</p> <p>Water quality monitoring occurs within Tangarang Creek and Barbers Creek. Water flow monitoring occurs within Tangarang Creek. Peppertree does not undertake water <i>flow</i> monitoring within Barbers Creek. This is a result of Barbers Creek being inaccessible and unsuitable for installation of flow monitoring equipment. It is recommended that discussions are held with DP&amp;E regarding modification of this condition to facilitate practical implementation.</p>	<b>Administrative Non-Compliance</b>	Low

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
30	Ground Water Monitoring Program	The Ground Water Monitoring Program must include: (a) detailed baseline data on ground water levels, flows, and quality, based on statistical analysis; (b) groundwater impact assessment criteria for monitoring bores; (c) a program to monitor regional ground water levels and quality; and (d) a protocol for the investigation of identified exceedances of the ground water impact assessment criteria.	Ground water monitoring program sighted within the approved WMP.  Results of ground water monitoring included within the AEMR.	<b>Compliant</b>	
30A	Ground Water Monitoring Program	In constructing and operating the Southern Overburden Emplacement Area, the Proponent must ensure that: (a) the surface water management system is constructed in accordance with the plan shown on the figure in Appendix 4; and (b) the surface water management system includes appropriate scour protection at discharge points to ensure the potential for erosion and transport of sediment to downstream waters is minimised.	<b>N/A - Water management system under construction at the time of the audit.</b>	<b>Not triggered</b>	
30B	Ground Water Monitoring Program	On completing of the construction of the surface water management system for the Southern Overburden Emplacement Area, the Proponent must commission an audit by a suitably qualified, experienced and independent person, approved by the Secretary, to determine whether the system has been constructed in accordance with this approval. A copy of the audit report and the Proponent's response to its recommendations must be provided to the Secretary and WaterNSW within 12 weeks of its commissioning.	<b>N/A</b>	<b>Not triggered</b>	

**Traffic and Transport**



Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
31		The Proponent <b>must</b> prepare and implement a construction traffic management plan for the project to the satisfaction of the RMS and Council.	Not sighted in this Audit but was identified in the previous audit as being compliant.	<b>Note</b>	
<b>Aboriginal Heritage</b>					
32		<p>The Proponent must prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> <li>(a) be submitted to the Secretary for approval prior to the commencement of construction;</li> <li>(b) be prepared in consultation with the OEH and relevant Aboriginal communities; and</li> <li>(c) include a: <ul style="list-style-type: none"> <li>• description of the measures that would be implemented for the mapping, and salvage or relocation of the archaeological relics in the Tangarang Creek Dam 1 area;</li> <li>• description of the measures that would be implemented if any new Aboriginal objects or relics are discovered during the project; and</li> <li>• protocol for the ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site.</li> </ul> </li> </ul> <p>The Proponent must implement the approved management plan as approved from time to time by the Secretary.</p>	<p>Boral commissioned ERM to create a detailed Aboriginal heritage management plan (completed January 2011). The plan was last updated in April 2017.</p> <p>During site works a scarred tree was found. Measures within management plan were enacted and heritage item was successfully maintained,</p>	<b>Compliant</b>	
32A		If historical archaeological relics are unexpectedly discovered during works, all works must cease, and a suitably qualified and experienced historical archaeologist be brought in to assess the find. Depending on the nature of the	N/A	<b>Not triggered</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		discovery, additional assessment and recording may be required prior to the recommencement of excavation in the affected area. The Heritage Council (or its Delegate) must be notified of this discovery in writing in accordance with section 146 of the Heritage Act, 1977.			
<b>Biodiversity and Rehabilitation</b>					
33	Rehabilitation and Habitat Management Area	The Proponent <b>must</b> : (a) rehabilitate the site in a manner that is generally consistent with the conceptual rehabilitation principles in Chapter 2.8 of the EA; and (b) implement the Habitat Management Area in a manner that is generally consistent with the documents listed in condition 2 of schedule 3 (and shown conceptually in Appendix 3), including the establishment, conservation and maintenance of at least 13.5 hectares of vegetation species characteristic of Box Gum Woodland, to the satisfaction of the Secretary.	Sighted Landscape and Rehabilitation Management plan prepared by ERM and updated Biodiversity and Rehabilitation Management plan Rehabilitation works continuing around the main dam sighted. Rehabilitation of overburden stockpiles sighted.  Field maintenance records showing rehabilitation activities sighted.	<b>Compliant</b>	-
33A	Threatened Species Protection	The Proponent <b>must</b> : (a) prior to clearing of vegetation and site preparation on the site of the Western Overburden Emplacement and extension, clearly and securely mark out the proposed boundary of the emplacement and extension; (b) avoid disturbance of Box Gum Woodland Endangered Ecological Community and other native vegetation adjacent to the site of the Western Overburden Emplacement and extension;	Western Overburden Emplacement and extension was cleared in accordance with the MCoA in the months prior to August. Fauna survey and relevant DP&E approval sighted.	<b>Compliant</b>	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		(c) only undertake clearing of vegetation on the site of the Western Overburden Emplacement and extension following a recent fauna survey undertaken by a suitably qualified expert who has been approved by the Secretary; and (d) seek to avoid clearing of native vegetation on the site of the Western Overburden Emplacement and extension during the period August to November of any year.			
34	Biodiversity Offset Strategy	<p>Proponent must:</p> <p>(a) implement the Biodiversity Offset Strategy described in EA (Mod 4);</p> <p>(b) within 12 months of the commencement of the construction of the Southern Overburden Emplacement Area, retire a total of 225 ecosystem credits in accordance with the Framework for Biodiversity Assessment - NSW Biodiversity Offsets Policy for Major Projects, to offset the removal of 8.1 hectares of White Box Yellow Box Blakely's Red Gum Grassy Woodland; and</p> <p>(c) provide long-term security and funding for the biodiversity offset area identified in the Biodiversity Offset Strategy through a Biobanking Agreement under the Threatened Species Conservation Act 1995; to the satisfaction of the Secretary.</p> <p><i>Note: The location and approximate area of the biodiversity offset area is shown on the figure in Appendix 6.</i></p>	<p>Offset formerly used the area to the north of the pit as offset. Due to recent changes in legislation (BC Act), the offset is now to be made through a payment to OEH. Receipt for offset payment sighted.</p> <p>Conceptual final landform for the pit is currently being developed by the Cambium Group.</p> <p>Monitoring is ongoing.</p>	<b>Compliant</b>	
34A	Biodiversity Offset Strategy	<p>The Proponent must prepare a Biodiversity and Rehabilitation Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with OEH and Council;</p> <p>(b) be submitted to the Secretary for approval by 28 February 2017, unless the Secretary agrees otherwise;</p> <p>(c) describe how the implementation of the Biodiversity Offset Strategy would be integrated with the management of the Habitat Management Area, and the</p>	<p>BRMP prepared in accordance with this clause and DP&amp;E approval sighted.</p> <p>A monitoring program has been developed and is included in the BRMP. Actions required to date</p>	<b>Compliant</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		<p>overall rehabilitation of the site;</p> <p>(d) provide details of the conceptual final landform and associated land uses for the site;</p> <p>(e) include detailed performance and completion criteria for evaluating the performance of the Biodiversity Offset Strategy, the Habitat Management Area and the rehabilitation of the site, including triggers for any necessary remedial action;</p> <p>(f) describe the short, medium and long term measures that would be implemented to:</p> <ul style="list-style-type: none"> <li>• manage native vegetation on site, including within the Biodiversity Offset Area and the Habitat Management area; and</li> <li>• comply with the rehabilitation principles in Chapter 2.8 of the EA;</li> </ul> <p>(g) describe in detail the measures that would be implemented over the next 3 years (to be updated for each 3 year period following initial approval of the plan) including the procedures to be implemented for:</p> <ul style="list-style-type: none"> <li>• maximising the salvage of environmental resources within approved disturbance areas, including tree hollows, vegetation and soil resources, for beneficial reuse in the Biodiversity Offset Area, the Habitat Management Area or for rehabilitating other areas of the site;</li> <li>• restoring and enhancing the quality of native vegetation and fauna habitat in the Biodiversity Offset Area, the Habitat Management Area and other areas of the site through assisted natural regeneration, targeted vegetation establishment and the introduction of fauna habitat features;</li> <li>• protecting native vegetation and fauna habitat outside the approved disturbance area;</li> <li>• minimising the impacts of the project on native fauna, including the protocol for undertaking pre-clearance surveys;</li> <li>• establishing vegetation screening and landscaping the site (including the bunds</li> </ul>	as identified within the plan have been completed.		

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		<p>and overburden emplacement areas) to minimise the visual impacts of the project on surrounding receivers;</p> <ul style="list-style-type: none"> <li>• ensuring minimal environmental consequences for threatened species, populations and habitats;</li> <li>• collecting and propagating seed;</li> <li>• controlling weeds and feral pests;</li> <li>• controlling access; and</li> <li>• bushfire management,</li> </ul> <p>(h) include a program to monitor and report on the effectiveness of these measures;</p> <p>(i) describe how the performance of these measures would be monitored over time; and</p> <p>(j) set completion criteria for the rehabilitation of the site.</p> <p>The Proponent must implement the approved management plan as approved from time to time by the Secretary.</p>			
35	Rehabilitation Bond	<p>Within 3 months of the first Independent Environmental Audit the Proponent must lodge a rehabilitation bond for the project with the Secretary. The sum of the bond must be calculated at \$2.50/m2 for the total area to be disturbed in each 5-year period, or as otherwise directed by the Secretary.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>• <i>If the rehabilitation is completed to the satisfaction of the Secretary, the Secretary will release the rehabilitation bond.</i></li> <li>• <i>If the rehabilitation is not completed to the satisfaction of the Secretary, the Secretary will call in all or</i></li> </ul>	Rehabilitation Bond lodged on 7.11.2016 sighted	<b>Compliant</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		<i>part of the rehabilitation bond, and arrange for the satisfactory completion of the relevant works.</i>			
36	Rehabilitation Bond	<p>Within 3 months of subsequent audits, the Proponent must review, and if necessary revise, the sum of the bond to the satisfaction of the Secretary. This review must consider:</p> <p>(a) the effects of inflation;</p> <p>(b) any changes to the total area of disturbance; and</p> <p>(c) the performance of the rehabilitation against the completion criteria of the Biodiversity and Rehabilitation Management Plan.</p>	N/A	Not triggered	
<b>Visual Impact</b>					
37	Visual Amenity and Lighting	<p>The Proponent must:</p> <p>(a) minimise the visual impacts, and particularly the off-site lighting impacts, of the project;</p> <p>(b) revegetate overburden emplacements, emplacement extensions and bunds as soon as practicable;</p> <p>(c) take all practicable measures to further mitigate off-site lighting impacts from the project; and</p> <p>(d) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Secretary.</p>	<p>In 2016 Boral engaged EMM Consulting Pty Ltd to undertake a lighting audit. EMM concluded that Boral is generally meeting the requirements of AS4282 and therefore this condition. A number of recommendations came out of the report for consideration by Boral. Subsequent to this Boral undertook a 'Change Management Risk Assessment' to identify risks associated with the recommended changes. Changes were implemented</p>	Compliant	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			where they did not pose a risk to health and safety.		
38		<i>(Deleted)</i>	-	-	-
39		<i>(Deleted)</i>	-	-	-
40	Advertising	The Proponent must not erect or display any advertising structure(s) or signs on the site without the written approval of the Secretary.	Boral has not erected or displayed any advertising structures or signs.	<b>Compliant</b>	-
<b>Waste Management</b>					
41		The Proponent must: (a) monitor the amount of waste generated by the project; (b) investigate ways to minimise waste generated by the project; (c) implement reasonable and feasible measures to minimise waste generated by the project; and (d) report on waste management and minimisation in the Annual Review to the satisfaction of the <a href="#">Secretary</a> .	As flagged within the 2015 Audit and the DP&E 2016 audit. Since these audits the waste management provider has been changed. Veolia is now the primary provider, Fast Skips – steel and Endeavour Industries collects office waste. However, no evidence was sighted that recommendations from the previous audit have been implemented. No formal waste management plan or document is in place to support the implementation of reasonable	<b>Non-compliant</b>	Low

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			<p>and feasible measures to minimise waste generated by the project. Arcadis understand that a plan is being developed by Boral</p> <p>Boral should establish a clear procedure around monitoring and recording waste generation. It is recommended that the waste contractors are engaged to assist with this process.</p>		
42		The Proponent must ensure that all waste generated or stored on site is assessed, classified and managed in accordance with the EPA's Environmental Guidelines: Assessment Classification and Management of Liquid and Non-Liquid Wastes.	<p>During the site visit it was observed that Veolia bins on site were not being utilised for the marked waste types. I.e. bins marked for recycling not receiving recyclable materials.</p> <p>Boral should establish a clear procedure around monitoring and recording waste generation. It is recommended that the waste contractors are engaged to assist with this process.</p>	<b>Non-compliant</b>	Low
<b>Emergency and Hazards Management</b>					



Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
43	Dangerous Goods	The Proponent must ensure that the storage, handling, and transport of dangerous goods are conducted in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the <i>Dangerous Goods Code</i> .	Boral maintains a register detailing and the storage of dangerous goods is conducted in accordance with the relevant Australian Standards.  Dangerous goods sighted during site visit appeared to be stored correctly.	<b>Compliant</b>	
44	Safety	The Proponent must secure the project to ensure public safety to the satisfaction of the <a href="#">Secretary</a> .	Confirmed on site that the area is fenced and sign posted.	<b>Compliant</b>	
45	Bushfire Management	The Proponent must: (a) ensure that the project is suitably equipped to respond to any fires on-site; and (b) assist the rural fire service and emergency services as much as possible if there is a fire on-site.	Fire and explosion inspection undertaken by the NSW Department of Industry in October 2017 sighted. The inspection determined that the project is suitably equipped to respond to fires on site.	<b>Compliant</b>	
<b>Production Data</b>					
46		The Proponent must: (a) provide annual production data to the <a href="#">DRE</a> using the standard form for that purpose; and (b) include a copy of this data in the Annual Review.	Production data is provided within the AEMR. However no evidence has been sighted of	<b>Administrative Non-compliance</b>	Low

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			this data being provided to DRE.		
<b>Quarry Exit Strategy</b>					
47		The Proponent must prepare and implement a Quarry Exit Strategy for the project to the satisfaction of the Secretary. This strategy must: (a) be submitted to the Secretary for approval at least 5 years prior to the cessation of the project; (b) be prepared in consultation with the relevant agencies; (c) define the objectives and criteria for quarry closure; (d) investigate options for the future use of the site, including any final void/s; (e) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and (f) describe how the performance of these measures would be monitored over time.	N/A	<b>Not triggered</b>	-
<b>Schedule 4: Additional Procedures</b>					
<b>Notification of Landowners</b>					
1		If the results of monitoring required in Schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent must notify the Secretary and the affected landowners and/or existing or future tenants (including tenants of quarry owned properties) accordingly, and provide quarterly monitoring results to each	N/A	<b>Not triggered</b>	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		of these parties until the results show that the project is complying with the relevant criteria.			
<b>Independent Review</b>					
2		<p>If a landowner (excluding quarry owned properties) considers that the operations of the quarry are exceeding the impact assessment criteria in Schedule 3, then he/she may ask the Proponent in writing for an independent review of the impacts of the project on his/her land. If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision, the Proponent must:</p> <p>(a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:</p> <ul style="list-style-type: none"> <li>· consult with the landowner to determine his/her concerns;</li> <li>· conduct monitoring to determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and</li> <li>· if the project is not complying with these criteria then: <ul style="list-style-type: none"> <li>o determine if the more than one quarry/mine is responsible for the exceedance, and if so the relative share of each quarry/mine regarding the impact on the land;</li> <li>o identify the measures that could be implemented to ensure compliance with the relevant criteria; and</li> </ul> </li> </ul> <p>(b) give the Secretary and landowner a copy of the independent review.</p>	N/A	Not triggered	-
3		If the independent review determines that the quarrying operations are complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary.	N/A	Not triggered	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
4		<p>If the independent review determines that the quarrying operations are not complying with the relevant criteria in Schedule 3, and that the quarry is primarily responsible for this non-compliance, then the Proponent must:</p> <p>(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until the project complies with the relevant criteria; or</p> <p>(b) secure a written agreement with the landowner to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Secretary.</p> <p>If the independent review determines that the project is not complying with the relevant acquisition criteria, and that the project is primarily responsible for this non-compliance, then upon receiving a written request from the landowner, the Proponent must acquire all or part of the landowner's land in accordance with the procedures in condition 6-7 below.</p>	N/A	Not triggered	-
5		<p>If the independent review determines that the relevant criteria are being exceeded, but that more than one quarry/mine is responsible for this exceedance, then together with the relevant quarry/mine/s, the Proponent must:</p> <p>(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until there is compliance with the relevant criteria; or</p> <p>(b) secure a written agreement with the landowner and other relevant mine/s to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Secretary.</p> <p>If the independent review determines that the project is not complying with the relevant acquisition criteria in schedule 3, but that more than one mine is responsible for this non-compliance, then upon receiving a written request from</p>	N/A	Not triggered	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		the landowner, Proponent must acquire all or part of the landowner's land on as equitable a basis as possible with the relevant quarries/mine/s, in accordance with the procedures in conditions 6-7 below.			
<b>Land Acquisition</b>					
6		<p>Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent must make a binding written offer to the landowner based on:</p> <p>(a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the project the subject of the project application, having regard to the:</p> <ul style="list-style-type: none"> <li>• existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and</li> <li>• presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the 'additional noise mitigation measures' in condition 7 of Schedule 3;</li> </ul> <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> <li>• relocating within the Goulburn Mulwaree local government area, or to any other local government area determined by the Secretary; and</li> <li>• obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; and</li> </ul> <p>(c) reasonable compensation for any disturbance caused by the land acquisition process.</p> <p>However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land, and/or the terms upon which the land is to be</p>	N/A	Not triggered	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		<p>acquired, then either party may refer the matter to the Secretary for resolution. Upon receiving such a request, the Secretary will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:</p> <ul style="list-style-type: none"> <li>· consider submissions from both parties;</li> <li>· determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;</li> <li>· prepare a detailed report setting out the reasons for any determination; and</li> <li>· provide a copy of the report to both parties.</li> </ul> <p>Within 14 days of receiving the independent valuer's report, the Proponent must make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.</p> <p>However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.</p> <p>Within 14 days of this determination, the Proponent must make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.</p> <p>If the landowner refuses to accept the Proponent's binding written offer under this</p>			

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		condition within 6 months of the offer being made, then the Proponent's obligations to acquire the land must cease, unless the Secretary determines otherwise.			
	7	The Proponent must pay all reasonable costs associated with the land acquisition process described in condition 6 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.	N/A	Not triggered	-
	8	<i>(Deleted)</i>	-	-	
<b>Schedule 5: Environmental Management, Reporting and Auditing</b>					
<b>Environmental Management</b>					
1	Environmental Management Strategy	If the Secretary requires, the Proponent must prepare an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must: (a) be submitted to the Secretary for approval within 6 months of the Secretary advising the Proponent that the strategy is required; (b) provide the strategic framework for the environmental management of the project; (c) identify the statutory approvals that apply to the project; (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project; (e) describe the procedures that would be implemented to: • keep the local community and relevant agencies informed about the operation	Sighted EMS that has been developed in accordance with this strategy	Compliant	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		<p>and environmental performance of the project;</p> <ul style="list-style-type: none"> <li>• receive, handle, respond to and record complaints;</li> <li>• resolve any disputes that may arise during the course of the project;</li> <li>• respond to any non-compliance; and</li> <li>• respond to emergencies; and (f) include: <ul style="list-style-type: none"> <li>• copies of any strategies, plans and programs approved under the conditions of this approval; and</li> <li>• a clear plan depicting all the monitoring to be carried out under the conditions of this approval. The Proponent must implement any approved Environmental Management Strategy as approved from time to time by the Secretary</li> </ul> </li> </ul>			
2	Management Plan Requirements	<p>The Proponent must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> <li>• the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>• any relevant limits or performance measures/criteria; and</li> <li>• the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;</li> </ul> <p>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> <li>• impacts and environmental performance of the project; and</li> <li>• effectiveness of any management measures (see (c) above);</li> </ul> <p>(e) a contingency plan to manage any unpredicted impacts and their consequences, and to ensure that ongoing impacts reduce to levels below</p>	Sighted management plans and relevant DP&E approval.	<b>Compliant</b>	



Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		<p>relevant impact assessment criteria as quickly as possible;</p> <p>(f) a program to investigate and implement ways to improve the environmental performance of the project over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> <li>• incidents;</li> <li>• complaints;</li> <li>• non-compliances with statutory requirements; and</li> <li>• exceedances of the impact assessment criteria and/or performance criteria;</li> </ul> <p>(h) a protocol for periodic review of the plan; and</p> <p>(i) a document control table that includes version numbers, dates when the management plan was prepared and reviewed, names and positions of people who prepared and reviewed the management plan, a description of any revisions made and the date of the Secretary's approval.</p> <p>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</p>			
3	Revision of Strategies, Plans and Programs	<p>Within 3 months of the submission of an:</p> <p>(a) Annual Review under condition 9 below;</p> <p>(b) incident report under condition 7 below;</p> <p>(c) audit report under condition 10 below; and</p> <p>(d) any modifications to this approval,</p> <p>the Proponent must review the strategies, plans and programs required under this approval, to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.</p> <p>Note: The purpose of this condition is to ensure that strategies, plans and</p>	<p>Plans were required to be reviewed following approval of mod 4 in 2016 - majority were due by November 2016. However, a request made for water management plan extension and biodiversity plan was not required till February 2017.</p>	<b>Compliant</b>	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		<i>programs are regularly updated to incorporate any measures recommended to improve environmental performance of the project.</i>	DP&E approval for extension of these timeframes has been sighted.		
4	Revision of Strategies, Plans and Programs	Prior to approval of management plans required to be submitted by 30 November 2016, and the approval of the Biodiversity and Rehabilitation Management Plan required to be submitted by 28 February 2017, all management plans, monitoring programs, strategies, programs and protocols approved as at the date of approval of modification 4 to this approval will continue to have full force and effect, and may be revised under the requirements of condition 5 below as if subject to the conditions of this approval that applied prior to the approval of Modification 4, or otherwise with the approval of the Secretary.	N/A	<b>Not triggered</b>	
5	Updating and Staging of Strategies, Plans or Programs	To ensure that strategies, plans or programs required under this approval are updated on a regular basis, and that they incorporate any appropriate additional measures to improve the environmental performance of the development, the Proponent may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Proponent may also submit any strategy, plan or program required by this approval on a staged basis. With the agreement of the Secretary, the Proponent may prepare a revision of or a stage of a strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this approval.  <i>Notes:</i> <ul style="list-style-type: none"> <li>• <i>While any strategy, plan or program may be submitted on a staged basis, the Proponent will need to ensure that the operations associated with the development are covered by suitable strategies, plans or programs at all times.</i></li> </ul>	N/A	<b>Not triggered</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		<p><i>• If the submission of any strategy, plan or program is to be staged; then the relevant strategy, plan or program must clearly describe the specific stage/s of the development to which the strategy, plan or program applies; the relationship of this stage/s to any future stages; and the trigger for updating the strategy, plan or program.</i></p>			
6	Adaptive Management	<p>The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&amp;A Act or EP&amp;A Regulation.</p> <p>Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must, at the earliest opportunity:</p> <p>(a) take all reasonable and feasible measures to ensure that the exceedance ceases and does not re-occur;</p> <p>(b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and</p> <p>(c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.</p>	<p>Boral assess and manages project related risk through management plans as assessed above.</p>	<b>Compliant</b>	
7	Community Consultive Committee	<p>The Proponent must operate a Community Consultative Committee (CCC) for the project, to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version)</p> <p><i>Notes:</i></p>	<p>CCC presentations and meeting minutes sighted. Minutes distributed to DP&amp;E.</p>	<b>Compliant</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		<ul style="list-style-type: none"> <li>• The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.</li> <li>• In accordance with the guideline, the committee should be comprised of an independent chair and appropriate representation from the Proponent, Council and the local community.</li> <li>• This condition may be fulfilled by the operation of a regional CCC for Boral's mining and quarrying activities in the Marulan area.</li> </ul>			
<b>Reporting</b>					
8	Incident Reporting	The Proponent must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	<p>During the audit Boral identified that there have been minor exceedances of the PM<sub>10</sub> short term criteria (at the monitoring location but not necessarily at the conditioned receiver). AEMRs identify a number of PM<sub>10</sub> short term criteria exceedances (at the monitoring location) over the audit period.</p> <p>Air quality data is modelled by Todoroski Air Sciences on a monthly basis to extrapolate the data to the conditioned receiver locations. The modelling has consistently identified that air quality levels are below the</p>	<b>Compliant</b>	-

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
			<p>relevant criteria at the receiver locations. As such, the readings above criteria at the monitoring location do not require reporting as they do not represent an 'incident',</p> <p>Evidence of reporting of environmental incidents relating to other environmental aspects has been sighted (e.g. release of sediment from scalps stockpile).</p>		
9	Regular Reporting	The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.	<p>Environmental performance data is not located on Boral Peppertree's specific web page but on the Boral website. The website is difficult to navigate to find the relevant information. Recommend that the web page is redesigned to be easier to navigate. Information on the page could benefit from being aligned to the conditions of approval (at a high level) so information is easier to find.</p>	<b>Observation</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
10	Annual Review	<p>By the end of March each year, or other timing as may be agreed by the Secretary, the Proponent must submit a report to the Department reviewing the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the works (including rehabilitation) that were carried out in the previous calendar year, and the works that are 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 project over the previous calendar year, which includes a comparison of these results against the:</p> <ul style="list-style-type: none"> <li>• relevant statutory requirements, limits or performance measures/criteria;</li> <li>• requirements of any plan or program required under this approval;</li> <li>• monitoring results of previous years; and</li> <li>• relevant predictions in the documents listed in condition 2(a) of Schedule 2;</li> </ul> <p>(c) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the project;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the project.</p> <p>(c) assess the environmental performance of the project, and its effects on the surrounding environment;</p>	Submission of AEMRs for 2016, 2017 was on time and have been acknowledged by DP&E.	<b>Compliant</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		(d) assess whether the project is complying with the relevant standards, performance measures and statutory requirements; (e) review the adequacy of any strategy/plan/program required under this approval; and, if necessary, (f) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.			
<b>Independent Environmental Audit</b>					
11		<p>Within 3 years of the date of the commencement of construction and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:</p> <p>(a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;</p> <p>(b) include consultation with the relevant agencies and the CCC;</p> <p>(c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL or necessary water licence for the project (including any assessment, strategy, plan or program required under these approvals);</p> <p>(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;</p> <p>(e) recommend appropriate measures or actions to improve the environmental</p>	<p>This audit has been undertaken in accordance with the requirements stipulated in points a to f. Section 1.1 specifically address where each of these requirements have been addressed in this audit report.</p>	<b>Compliant</b>	

Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		<p>performance of the project, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and</p> <p>(f) be conducted and reported to the satisfaction of the Secretary.</p> <p><i>Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.</i></p> <p>Within 10 weeks of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.</p>			
<b>Access to Information</b>					
12		<p>By 30 November 2016, unless otherwise agreed by the Secretary, the Proponent must:</p> <ul style="list-style-type: none"> <li>• (a) make the following information publicly available on its website:</li> <li>• the documents listed in condition 2(a) of Schedule 2;</li> <li>• current statutory approvals for the project;</li> <li>• all approved strategies, plans or programs required under the conditions of this approval;</li> <li>• a comprehensive summary of the monitoring results of the project, reported in accordance with the specifications in any conditions of this approval, or any plans and programs required under the conditions of this approval;</li> <li>• a complaints register, which is to be updated on a quarterly basis;</li> </ul>	<p>Environmental performance data is not located on Boral Peppertree's specific web page but on the Boral website. The website is difficult to navigate to find the relevant information. Recommend that the web page is redesigned to be easier to navigate.</p> <p>Information on the page could benefit from being aligned to the conditions of approval (at a high</p>	<b>Observation</b>	



Condition Number	Aspect	Condition	Evidence Sources / Questions	Audit Findings	
				Compliance Assessment	Risk Rating for Non-Compliance
		<ul style="list-style-type: none"> <li>the Annual Reviews (over the last 5 years);</li> <li>any independent environmental audit, and the Proponent's response to the recommendations in any audit; and</li> <li>any other matter required by the Secretary, and</li> </ul> (b) keep this information up-to-date, to the satisfaction of the Secretary.	level) so information is easier to find.		

## Compliance with the Environmental Protection Licence (2018)

Table A- 2

Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
<b>1. Administrative Conditions</b>				
A1.1	This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2: The licensee is permitted to undertake pre-construction exploratory test pit activities as described in modification application 06_0074 MOD 1 relating to the extraction and despatch of up to 9,000 tonnes of extracted material	Site visit undertaken confirming the scale and type of activities being undertaken at the premises are in alignment with the EPL.	<b>Compliant</b>	-
A1.2	This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation. Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition. > 2000000 T annual capacity to extract, process or store	Sighted output records from product tracking system. Based on tonnage records, annual average tonnes is around 220,000 which is well below the approved limit.	<b>Compliant</b>	-
A2.1	The licence applies to the following premises: PEPPERTREE QUARRY	-	-	-

Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
A3.1	<p>Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.</p> <p>In this condition the reference to "the licence application" includes a reference to:</p> <p>a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and</p> <p>b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.</p>	-	Complaint -	-
<b>2. Discharges to Air and Water and Applications to Land</b>				
P1.1	<p>The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.</p>	<p>Location of monitoring stations confirmed during audit. During the audit period the EPL was updated to reflect a change in the location of a monitoring station.</p> <p>Monitoring stations continue to operate at the locations as specified within the updated licence and shown on Figure 2 in the Peppertree Quarry Air Quality Management Plan.</p>	<b>Compliant</b>	-

Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
<b>3. Limit Conditions</b>				
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	<p>A review of EPL data indicates a non-compliance with this condition in 2016 when an unintentional release of sediment from a section of scalps stockpile occurred, resulting in a discharge to an adjoining waterway during a significant rainfall event. Penalty notice has been issued by the EPA.</p> <p>In their formal consultation with the EPA regarding the event Boral has provided a number of mitigation measures that will be implemented to prevent a recurrence of this event. These have been integrated into the updated WMP.</p>	<b>Non-compliant</b>	Low
L2.1	Noise generated at the premises must not exceed the noise limits presented in the table below:	<p>A review of monitoring data indicates the following exceedances of licence limits were observed:</p> <p>Q3 2017 for Daytime noise criteria.</p> <p>However, the licence contains exemptions for exceedances under certain conditions. As the exceedance occurred during a recorded temperature inversion no official exceedance has been recorded.</p>	<b>Compliant</b>	-

Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
L2.2	<p>Noise from the site is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the identified noise limits, except where specified below.</p> <p>Noise from the project is to be measured at 1 metre from the dwelling facade to determine compliance with the LA1(1 minute) noise level.</p> <p>Where it can be demonstrated the direct measurement of noise from the project is impractical, alternative means of determining compliance may be acceptable (see Chapter 11 of the NSW Industrial Noise Policy).</p> <p>The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise level where applicable.</p> <p>The identified noise emission limits apply under all meteorological conditions except the following:</p> <ol style="list-style-type: none"> <li>1. wind speeds greater than 3m/s at 10m above ground level; or</li> <li>2. temperature inversion conditions between 1.5°C and 3°C/100m and wind speed greater than 2m/s at 10m above ground level; or</li> <li>3. temperature inversion conditions greater than 3°C/100m.</li> </ol>	<p>Auditor understands noise monitoring has been undertaken in compliance with licence conditions.</p>	-	-

Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
L3.1	The licensee must ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in the below table at any residence on privately owned land:	A review of EPL monitoring indicates there have been no exceedances of licence limits.	<b>Compliant</b>	-
L3.2	The licensee must ensure that the ground vibration level from blasting at the project does not exceed the criteria in the below table at any residence or sensitive receiver on privately owned land.	A review of EPL monitoring indicates there have been no exceedances of licence limits.	<b>Compliant</b>	-
<b>4. Operating Conditions</b>				
O1.1	Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	In the auditor's opinion, based on a review of activities on site, monitoring results and other evidence, operations reviewed during the audit were being carried out in a competent manner. The auditor is of the view that activities at the site are generally carried out in a competent manner.	<b>Compliant</b>	-
O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner	Plant maintenance and operation is undertaken in accordance with SWMS developed for each task., Maintenance timing is controlled by the Electronic	<b>Compliant</b>	-

Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
		Assessment Management System. Current work orders report and SWMS were sighted.		
O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Sighted the AQMP which contains measures to be implemented to prevent / minimise dust emissions from site. A number of measures were also identified on site including the use of water carts and revegetation.	<b>Compliant</b>	-
<b>5. Monitoring and Recording Conditions</b>				
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	The auditor has sighted noise, surface water, groundwater and dust monitoring records and notes that they are legible.	<b>Compliant</b>	-
M1.2	All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them.	The auditor has sighted noise, surface water, groundwater and dust monitoring records and notes that they are legible.	<b>Compliant</b>	-
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence:	Field sheets used to record this information.	<b>Compliant</b>	-

Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
	a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.			
M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Monitoring results have been sighted, methods, units and techniques appear to be in accordance with the EPL.	<b>Compliant</b>	-
M2.2	Air Monitoring Requirements	-	-	-
M3.1	Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology	Monitoring results have been sighted, methods, units and techniques appear to be in accordance with the EPL.	<b>Compliant</b>	-



Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
	approved in writing by the EPA for the purposes of that testing prior to the testing taking place.			
M4.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Complaints register is maintained and is displayed on the Boral project website. Register is legible and appears to be up to date.	<b>Compliant</b>	-
M4.2	The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.	Detailed complaints register is maintained within internal Safety Incident Management System which contains relevant details as specified within this condition.	<b>Compliant</b>	-
M4.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Complaint records appear to be maintained from as early as 2011.	<b>Compliant</b>	-
M4.4	The record must be produced to any authorised officer of the EPA who asks to see them.	Not verified	-	-

Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
M5.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Contact / complaints line available during operational hours.	<b>Compliant</b>	-
M5.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	Contact line is available, but it is not clear on the website that this a line that can be used for complaints. However, it is noted that the complaints hotline is included in the local newsletter. The website should be updated to clearly identify the telephone number through which complaints can be made.	<b>Administrative non-compliance</b>	Low
M5.3	The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.	-	-	-
<b>6. Reporting Conditions</b>				
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: 1. a Statement of Compliance, 2. a Monitoring and Complaints Summary, 3. a Statement of Compliance - Licence Conditions, 4. a Statement of Compliance - Load based Fee, 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,	EPA annual returns for years during the audit period, utilising the approved EPA pro-forma sighted.	<b>Compliant</b>	-

Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
	<p>6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and</p> <p>7. a Statement of Compliance - Environmental Management Systems and Practices.</p> <p>At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.</p>			
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below.	EPA annual returns for years during the audit period, utilising the approved EPA pro-forma sighted.	<b>Compliant</b>	-
R1.3	<p>Where this licence is transferred from the licensee to a new licensee:</p> <p>a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and</p> <p>b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.</p>	N/A	-	-
R1.4	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period	N/A	-	-

Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
	commencing on the first day of the reporting period and ending on: a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.			
R1.5	The Annual Return for the reporting period must be supplied to the EPA via eConnect EPA or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	A review of EPA public register has been undertaken. Annual returns for years during the audit period have been submitted within the reporting period.	<b>Compliant</b>	-
R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	-	<b>Not verified</b>	-
R1.7	Within the Annual Return, the Statements of Compliance must be certified, and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	-	<b>Not verified</b>	-
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.	-	<b>Not verified</b>	-

Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	-	<b>Not verified</b>	-
R3.1	Where an authorised officer of the EPA suspects on reasonable grounds that: a) where this licence applies to premises, an event has occurred at the premises; or b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	This event has not occurred or been recorded as occurring during the audit period.	<b>Not verified</b>	-
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	-	<b>Not verified</b>	-
R3.3	The request may require a report which includes any or all of the following information: a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone	-	<b>Not verified</b>	-

Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
	<p>number of employees or agents of the licensee, or a specified class of them, who witnessed the event;</p> <p>d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;</p> <p>e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;</p> <p>f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and</p> <p>g) any other relevant matters.</p>			
R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	-	<b>Not verified</b>	-
<b>7. General Conditions</b>				
G1.1	A copy of this licence must be kept at the premises to which the licence applies.	-	<b>Not verified</b>	-
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	-	<b>Not verified</b>	-

Condition Number	Condition	Evidence Sources / Questions	Audit Findings	
			Compliance Assessment	Risk Rating for Non-Compliance
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	-	<b>Not verified</b>	-

## APPENDIX E

### Previous Audit Evidence: 2016 DP&E Audit Close Out Findings

Schedule 3, condition 17	<p>One minor non-compliance of deposited dust recorded from Pit 1. Under discussion with the EPL regarding sampling location.</p> <p>2015 AEMR and EPL monitoring data indicate compliance with criteria at these locations. One non-compliance recorded, but due to nature of material found it is unlikely to have originated from the site, but may be attributed to cropping activities on nearby farms and/or material from limestone Quarry.</p>	<p>Peppertree quarry will continue to monitor and report exceedances of monitoring criteria.</p> <p>Investigations will be undertaken to determine the possible source and to ensure Peppertree environmental controls are in place and operational.</p>	<b>Complete</b>	N/A
Schedule 3, condition 41 (a)	<p>Audit sighted dockets for waste oil removal, tip receipts for other waste, service agreement, waste management spreadsheet showing what and where waste goes. It is recommended that Boral establish a clear procedure for monitoring waste generation.</p>	<p>Waste management review to be undertaken and procedures to be put in place for management, including data collection and analysis. Procedures to be in place by July 2017</p>	<b>Incomplete</b>	<p>Boral should establish a clear procedure around monitoring and recording waste generation. It is recommended that the waste contractors are engaged to assist with this process. Arcadis understand that a waste management plan is being developed by Boral.</p>
Schedule 5, condition 10 (a), 10(b),	<p>On 7 October 2016 the Dept. sent a Show Cause notice to Boral Peppertree in relation to the non-submission of the</p>	<p>Issue all AEMRs on time 2016 AEMR issued on time – 29th March 2017.</p>	<b>Complete</b>	N/A



10(c), 10(d), 10(e), 10 (f)	2013 and 2014 AEMRs and the late submission of the 2015 AMER.  All of the required documents were submitted following this Show Cause.  The Dept. has received Boral's response on this matter, and will determine its response following finalisation of the current group of Boral audits.			
--------------------------------------	--	--	--	--

---

## Previous Audit Evidence: 2015 Independent Audit Evidence

Audit Criteria	Recommendation	Evidence	Status	Further recommendations
PQ 1/15	When management plans or monitoring programs are due for renewal/review, ensure formal approval from DP&E is received.	DP&E approval letters	Complete	N/A
PQ 2/15	Review design of dam to determine if additional retention basin is required.	Additional sediment dams have been constructed and are operational.	Complete	Further works are being undertaken in the Train Load Out area to optimise drainage. Final designs should be reviewed in light of sediment dam requirements.
PQ 3/15	A copy of the WMP should be submitted to NOW, EPA and Sydney Catchment Authority for review and comment.	Sighted evidence for NOW, EPA and SCA consultation regarding the WMP.	Complete	If future significant updates are required to this plan, further comment should be sought from relevant agencies.
PQ 4/15	The ESCP should be revised to address the requirements of the Blue Book.	WMP is aligned to the requirements of the Blue Book.	Complete	N/A
PQ 5/15	When the SWMP is due for revision, baseline data on surface water flows and quality in Tangarang Creek and Barbers Creek will need to be included.	WMP was updated as part of Modification 4. The plan includes baseline data on surface flows with the exception of Barbers Creek. Surface water samples are taken at this location but no flow data reported.	Incomplete	It is recommended that discussions are held with DP&E regarding modification of this condition to facilitate practical implementation.
PQ 6/15	Ensure Peppertree Quarry website is updated and easily accessible	Peppertree Quarry website is difficult to navigate and it is unclear if the data on the website meets all requirements under the conditions of consent.	Incomplete	It is recommended that the website be redesigned to present the required data more clearly. Peppertree Quarry could

Audit Criteria	Recommendation	Evidence	Status	Further recommendations
				<p>be separated from the Marulan South Limestone Mine page to avoid confusion.</p> <p>It is recommended that headings are aligned to those in the conditions to make navigating the site easier.</p>
<b>PQ 7/15</b>	When the LRMP is due for revision, it will need to provide greater clarity on the short, medium and long-term rehabilitation measures. The monitoring performance of these measures will need to be defined as well as the completion criteria.	The LRMP has been updated as the BRMP. A plan for rehabilitation, including detailed measures for the next three years, is provided. Details for monitoring, performance indicators and completion criteria have been defined.	<b>Complete</b>	N/A
<b>PQ 8/15</b>	<p>Implement recommendations of Compliance Lighting Audit including:</p> <ul style="list-style-type: none"> <li>• adjust lighting fixers on the side of buildings to ensure the main beam angle is kept below 70 degrees as recommended in AS 4282;</li> <li>• review the type of permanent night lighting used. HPS lamps emit a softer orange light than the intense white light of the metal halide.</li> <li>• reduce height of fixed lighting structures on buildings as much as possible to reduce light spill and skyglow;</li> <li>• consider formalising a protocol for use of lighting at the Quarry that is considered</li> </ul>	Not all recommendations of Compliance Lighting Audit have been implemented. Boral has undertaken a change management risk assessment to identify risks from the implementation of the lighting changes. Measures that were deemed suitable following that risk assessment have been implemented.	<b>Complete</b>	N/A

Audit Criteria	Recommendation	Evidence	Status	Further recommendations
	<p>appropriate for safety and occurs routinely;</p> <ul style="list-style-type: none"> <li>investigate options to turn off lighting sources in areas of low use; and If complaints are received in relation to the Quarry these recommendations should be revisited</li> </ul>			
<b>PQ 9/15</b>	<p>It is recommended Boral implement and monitor waste minimisation strategies to determine further areas of improvement. The monthly invoices provided by Remondis could be used to track the amount of waste produced by Boral. The identified areas of improvement should be discussed in the Annual Review. It is also suggested that more detail be included in the waste management review in the Annual Review including assessment of waste management and minimisation actions undertaken by Boral.</p>	<p>Boral does not appear to be tracking waste or identifying areas of further improvement. Boral identified that the primary waste contractor has recently changed and this data is now being collected.</p>	<b>Incomplete</b>	<p>It is recommended that Boral engage with waste contractors to track waste with the aim of implementing and monitoring waste minimisation strategies.</p>
<b>PQ 10/15</b>	<p>Ensure all oil/lubricant products are stored appropriately with self-contained bunding.</p>	<p>Boral identified that a review of oil storage bunding has been conducted and plans developed for improvements. During the site visit oil/lubricant storage was investigated and was found to be appropriately managed.</p>	<b>Complete</b>	N/A
<b>PQ 11/15</b>	<p>Update document to acknowledge EPL and all applicable requirements including the protocol for reporting exceedances. When</p>	<p>Updated EMS produced in 2017 includes EPL requirements and protocols. Formal approval of EMS by DP&amp;E has been sighted.</p>	<b>Complete</b>	N/A

Audit Criteria	Recommendation	Evidence	Status	Further recommendations
	EMS is due for renewal/review, ensure formal approval from Director-General is received.			
PQ 12/15	It is recommended that Boral ensures the deadline of reporting an exceedance/incident to the Department and relevant agencies is met.	<p>During the audit Boral identified that there have been minor exceedances of the PM<sub>10</sub> short term criteria (at the monitoring location but not necessarily at the conditioned receiver location). AEMRs also identify a number of PM<sub>10</sub> short term criteria exceedances (at the monitoring location) over the audit period.</p> <p>Air quality data is modelled by Todoroski Air Sciences on a monthly basis to extrapolate the data to the conditioned receiver locations. The modelling has consistently identified that air quality levels are below the relevant criteria at the receiver locations. As such, the readings above criteria at the monitoring location do not require reporting as they do not represent an 'incident',</p> <p>Evidence of reporting of environmental incidents relating to other environmental aspects has been sighted (e.g. release of sediment from scalps stockpile).</p>	<b>Complete</b>	N/A
PQ 13/15	It is recommended that Boral complete and submit all outstanding Annual Reviews. As per the requirements of the condition, all future Annual Reviews will need to be completed by March of the following year. It is suggested Boral create a schedule with an	All subsequent annual reviews have been submitted on time.	<b>Complete</b>	N/A

Audit Criteria	Recommendation	Evidence	Status	Further recommendations
	internal deadline at least one month prior to the deadline to the Director-General to ensure all future Annual Review deadlines are met.			
<b>PQ 14/15</b>	It is recommended Boral completes the reviews and any necessary revisions of the incident reports completed in 2015 and maintain this documentation in the future.	Revised management plans including findings and recommendations from 2015 incidents were submitted in November 2016.	<b>Complete</b>	N/A
<b>PQ 15/15</b>	Boral could make documents available on the website more regularly and ensure the documents on the website are up to date with the latest version.	EAM is used to trigger when documentation requires review. Website appears to contain required up to date information.	<b>Complete</b>	N/A

Boral Resources (NSW) Pty Ltd

## **APPENDIX F**

### **Audit team endorsement**



Contact: Georgia Dragicevic  
Phone: 4224 9477  
Fax: 4224 9470  
Email: [Georgia.Dragicevic@planning.nsw.gov.au](mailto:Georgia.Dragicevic@planning.nsw.gov.au)

Mr Angus Shedden  
Peppertree Quarry Manager  
Boral Resources (NSW) Pty Ltd  
843 Marulan South Road  
MARULAN NSW 2579

Dear Mr Shedden

**Peppertree Quarry (MP 06\_0074)  
Independent Environmental Audit 2018**

I refer to your letter email of 28 August 2018 seeking approval of the audit team for the upcoming Peppertree Quarry Independent Environmental Audit, in accordance with Schedule 5, Condition 11 of the project approval MP 06\_0075 ('the approval').

Having considered the qualifications and experience of the Arcadis Australia Pacific audit team, namely;

- Principal Auditor Brad Searle;
- Audit Support Sean Fishwick;
- Technical Review Peter Rand;
- Auditor / Ecologist Kate Carrol; and
- Water Specialist Sam Withers,

the Secretary endorses the appointment of this team to undertake the audit in accordance with Schedule 5, Condition 11 of the approval. This approval is conditional on the audit team being independent of the development.

The audit is to be conducted in accordance with AS/NZS ISO 19011 Australian/New Zealand Standard: Guidelines for quality and/or environmental management systems auditing and in accordance with the Independent Audit Guideline dated October 2015. A copy of this guideline can be located at <http://www.planning.nsw.gov.au/Policy-and-Legislation/Mining-and-Resources/Integrated-Mining-Policy>.

The audit report is to include the following:

- a compliance table indicating the compliance status of each condition of approval and any relevant EPL;
- not use the term "partial compliance";
- recommend actions in response to non-compliances;
- review the adequacy of plans and programs required under this approval; and
- identify opportunities for improved environmental management and performance.

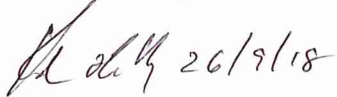
Within 10 weeks of commissioning the audit, or as otherwise agreed by the Secretary, Boral is to submit a copy of the audit report to the Secretary together with its response to any recommendations contained in the audit report and a timetable to implement the recommendations.



Prior to submitting the audit report to the Secretary, it is recommended that Boral review the report to ensure it complies with the relevant approval condition.

Should you have any enquiries in relation to this matter, please contact Georgia Dragicevic, Senior Compliance Officer, on telephone number (02) 4224 9477 or by email to [Georgia.Dragicevic@planning.nsw.gov.au](mailto:Georgia.Dragicevic@planning.nsw.gov.au)

Yours sincerely



Katrina O'Reilly  
**Team Leader Compliance**  
*as nominee of the Secretary*

