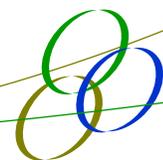
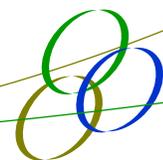


## DUNMORE HARD ROCK QUARRY INDEPENDENT ENVIRONMENTAL AUDIT 2017

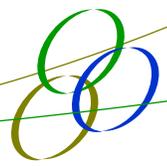
*Prepared for Boral Resources (NSW) Pty Ltd  
Prepared by EPS*



<b>Contact Information and Declaration</b>			
<b>Declaration:</b>	<p>The opinions and declarations in this Independent Environmental Audit (IEA) are ascribed to Environmental Property Services (EPS) and are made in good faith and trust that such statements are neither false nor misleading.</p> <p>In preparing this IEA, EPS has considered and relied upon information obtained from Boral Resources (NSW) and the public domain, supplemented by discussions between key EPS staff, representatives from governing agencies and independents.</p>		
<b>Prepared by:</b>	<table border="1"><tbody><tr><td>Alina Tipper Bachelor of Environmental Science &amp; Management Senior Environmental Consultant Environmental Property Services PO Box 348 NELSON BAY NSW 2315 Ph: 02 4981 1600</td><td>Mike Shelly Bachelor of Science Senior Environmental Consultant Environmental Property Services PO Box 348 NELSON BAY NSW 2315 Ph: 02 4981 1600</td></tr></tbody></table>	Alina Tipper Bachelor of Environmental Science & Management Senior Environmental Consultant Environmental Property Services PO Box 348 NELSON BAY NSW 2315 Ph: 02 4981 1600	Mike Shelly Bachelor of Science Senior Environmental Consultant Environmental Property Services PO Box 348 NELSON BAY NSW 2315 Ph: 02 4981 1600
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<b>Application subject land address:</b>	<p>Lot 1, DP 213575 Lot 3, DP 1030504 Lot 4, DP 1030504 Lot 4, DP 227046 Lot 1, DP 1002951 Lot 1, DP 224597 Lot 2, DP 224597 Lot 4, DP 571406 Lot 6, DP 1001931</p>		



<b>Quality Assurance &amp; Version Control Table</b>				
<b>Project: Dunmore Independent Environmental Audit</b>				
<b>Client:</b>	Boral Resources (NSW) Pty Ltd			
<b>Rev No.</b>	<b>Date</b>	<b>Our Reference</b>	<b>Author</b>	<b>Reviewer</b>
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## EXECUTIVE SUMMARY

This Independent Environmental Audit has been prepared in accordance with Schedule 5, Condition 10 of the Development Consent DA 470-11-2003 for Boral Hard Rock Quarry. The quarry is owned and operated by Boral Resources (NSW) Pty Ltd. Schedule 5, Condition 10 includes requirements for assessment of compliance with the Development Consent and the Environmental Protection Licence (EPL). It also provides for assessment of environmental performance of the site and, where applicable, issuing recommendations for improvement.

This audit has been conducted and prepared with consideration of the *AS/NZS 19011:2003 Guidelines for quality and/or environmental management systems audit*.

### Close-out of 2014 Audit

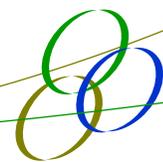
The 2014 audit findings were reviewed and an assessment was made regarding the sufficiency of actions implemented by Boral Resources in response. Of the 22 recommendations identified the status is as follows:

- Complete and Satisfactory: 15
- Complete and Unsatisfactory: 1
- Incomplete and Partially Satisfactory: 3
- Incomplete and Satisfactory or N/A: 1
- Incomplete and Unsatisfactory: 2

### Compliance with Development Consent 2017 Audit

The findings of assessment against the conditions in Schedule 3 – 5 of the Development Consent is presented below. Of the 96 applicable conditions, 70 were assessed as compliant, 4 non-compliant, 20 compliant in part and 2 not able to be determined.

Schedule	Audit Finding					Total
	Compliant	Non-compliant	N/A	Compliant in Part	Not Able to Determine	
3	8	N/A	5	1	N/A	14
4	54	2	9	17	2	84
5	8	2	N/A	2	N/A	12
<b>Total</b>	70	4	14	20	2	110



### **Compliance with EPL 2017 Audit**

Since 2013/2014 three (3) non-compliances have been recorded. All non-compliances have related to licence condition M2.2. One of the non-compliances resulted in the issue of a Formal Warning, but none resulted in the issue of a Penalty Notice. All non-compliances relate to deficiencies in monitoring and reporting, rather than exceedances of limits. However, it should be noted that in the absence of monitoring, potential exceedances may not have been detected.

### **Adequacy of Strategies, Plans and Programs 2017 Audit**

In general, documentation has been significantly improved since the previous audit. Majority of strategies, plans and programs were reviewed and updated in 2016. The revised documents are considered adequate for the purposes as they meet the conditioned requirements, follow a relatively consistent structure and are operational documents.

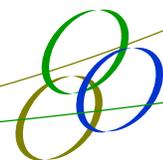
Several documents have not been reviewed and revised in accordance with the conditions of consent and are considered to be inadequate. A number of recommendations are made to improve the project documents and to help ensure they remain current.

### **Opportunities for Improvement 2017 Audit**

A total of 10 opportunities to promote improvement in terms of regulatory compliance and environmental performance are included in the audit report for Boral's consideration and action.

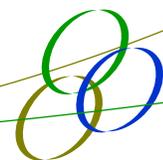
### **Overall Assessment of Environmental Performance 2017 Audit**

Noting there are a number of matters that require improvement, the overall environmental performance based on the observed condition of the site, the low number of non-compliances and incidents, and low number of complaints, is considered '**satisfactory**'.



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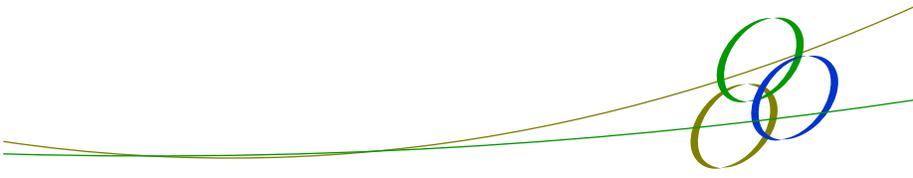
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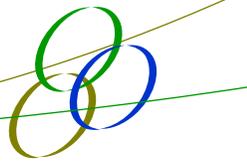
Appendix 1 – Development Consent

Appendix 2 – 2017 Audit Evidence

Appendix 3 – Environment Protection Licence (EPL 77)



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# 1 INTRODUCTION

## 1.1 Background

Environmental Property Services (EPS) has been approved by Department of Planning and Environment (DP&E) to complete the Independent Environmental Audit (IEA) of the Dunmore Hard Rock Quarry. The quarry is owned and operated by Boral Resources (NSW) Pty Ltd (Boral). Located on Tabbita Road, approximately 12km north-west of Kiama, the quarry is adjacent to Boral Dunmore Sand and Soil Quarry and the Boral Dunmore Concrete Batching Plant. The audited quarry produces hard rock which is crushed to produce coarse aggregates, road construction materials and fines which are typically used as manufactured sand, bedding material or soil additive.

The quarry, originally approved in November of 2004 (DA 470-11-2003), has been the subject of eight (8) modifications. A summary of the approved modifications is as follows:

- Modification 1 – New amenities block;
- Modification 2 – Vegetation offsets and transport route;
- Modification 3 – New workshop, office and amenities buildings;
- Modification 4 & 5 – Extension to extraction area and truck parking facility;
- Modification 6 – Increase extraction area and road haulage;
- Modification 7 – Proposed blending plant and modification to noise monitoring requirements; and
- Modification 8 – Construction of a bund in preparation for extension of the extraction area and modernising of various conditions.

An application for Modification 9 was submitted to DP&E in March 2017, and at the time of writing, was undergoing assessment.

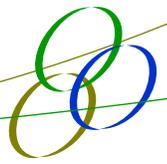
The current consent is attached in Appendix 1.

This audit has been completed to satisfy Schedule 5, Condition 10 of the current development consent. The previous audit was completed by Hyder in 2014.

## 1.2 Audit Scope and Schedule

### 1.2.1 Audit Scope

This audit is designed to address the requirements of Schedule 5, Condition 10 of DA 470-11-2003 as amended by Modification 8. The requirements are as follows:



- (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 Community Consultative Committee (CCC);
- (c) Assess the environmental performance of the development and whether it is complying with the relevant requirements in the consent and any relevant EPL and/or Water Licenses (including any assessment, plan or program required under the abovementioned approvals);
- (d) Review the adequacy of any approved strategies, plans or programs required under the abovementioned approvals;
- (e) Recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals; and
- (f) Be conducted and reported to the satisfaction of the Secretary.

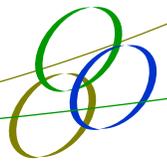
### 1.2.2 Audit Timeframe

As established in the previous IEA completed by Hyder (2014), the audit period for the 2017 IEA is April 2014 to April 2017.

## 1.3 Report Structure

This report has been structured to be consistent with the previous IEA. The structure is as follows:

- **Executive Summary**
- **Section 1 – Introduction:** background, scope, timeframe and contextual information.
- **Section 2 – Audit Methodology:** overview of the methodology used to conduct and deliver the audit and the terminology used within the audit report.
- **Section 3 – Previous Environmental Audit:** results and responses to the previous environmental audit and an assessment of response adequacy.
- **Section 4 – Compliance with the Development Consent:** review of compliance with the development consent DA 470-11-2003 as amended by Modification 8.
- **Section 5 – Compliance with the EPL:** review of compliance with EPL 77.
- **Section 6 – Adequacy of Strategies, Plans and Programs:** review of adequacy of approved strategies, plans or programs required under the consent.
- **Section 7 – Audit Conclusions.**



## 2 AUDIT METHODOLOGY

This audit has been conducted and prepared with consideration of the *AS/NZS 19011:2003 Guidelines for quality and/or environmental management systems audit*. The method used to conduct the audit can be summarised as follows:

### **Document Review**

The following documents were reviewed as part of the document review process:

- The project Environmental Impact Statement (EIS);
- Previous audit report;
- Management strategies, plans and programs;
- Monitoring records and reports;
- Correspondence between Boral and relevant agencies; and
- Guidelines and standards.

### **Interview**

Interviews with the following relevant staff members were completed as part of the audit:

- Glenn Troy – Dunmore Quarry Manager;
- Ellie Randall – Environmental Co-ordinator;
- Ronnie Lawton – Environmental Advisor – NSW/ACT;
- Dylan Treadwell – Maintenance Supervisor; and
- Stuart McLean – Production Supervisor.

### **Site Inspection/Visual Verification**

A one day site inspection was completed to undertake interviews and inspect the site. The site inspection was conducted by the Lead Auditor (Alina Tipper) and the Audit Assistant (Mike Shelly). The site inspection was completed on 30/05/2017 from 9am – 5pm.

## 2.1 Terminology

Consistent with the previous audit, the terminology listed in Table 2-1 has been applied when assessing compliance with the Development Consent, Environment Protection Licence (EPL) and the adequacy of other strategies, plans and programs.

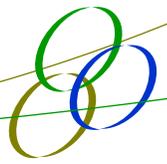


Table 2-1: Terminology

Term	Definition
<b>Compliant</b>	Processes have been established and implemented that are consistent with the requirement.
<b>Non-compliant</b>	Failure to develop and/or implement processes to meet the requirement to an effective standard.
<b>Compliant in part</b>	Processes have been developed and/or implemented that enable the requirement to be met in part.
<b>Opportunity for improvement (recommendation)</b>	Identification of an opportunity to improve processes or implement changes to add value or clarify compliance with requirements.
<b>N/A, Non-applicable</b>	Requirement not applicable to this audit. May have been updated in previous audit.
<b>Not able to determine</b>	Compliance not able to be assessed as the information available was not sufficient.
<b>Complete</b>	Non-compliances from the previous audit have been addressed and finalised.
<b>Incomplete</b>	Non-compliances and recommendations from the previous audit have not been finalised.
<b>Satisfactory</b>	The actions implemented in response to non-compliances and recommendations from the previous audit are sufficient.

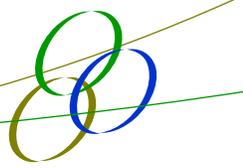
## 2.2 Auditor Qualifications

Schedule 5, Condition 10 specifies the audit *“be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary”*.

Correspondence from the Secretary dated 14/03/2017 endorsed the following audit team:

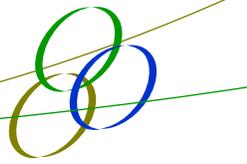
- **Alina Tipper** – Lead Auditor, Senior Environmental Consultant; and
- **Mike Shelly** – Audit Assistant, Senior Environmental Consultant.

The team engaged for this audit do not have prior involvement with the Dunmore Hard Rock Quarry.



## 2.3 Audit Response and Close-Out

Consistent with the 2014 audit, Boral was provided the opportunity to respond to the recommendations and provide evidence of implementation of actions prior to audit close out. Where applicable, these responses are presented in the compliance tables as evidence or commitments. Where the response was deemed sufficient to close-out the audit finding and assessment of 'satisfactory' or 'complete' has been provided in parentheses.



## 3 2014 INDEPENDENT ENVIRONMENTAL AUDIT CLOSE-OUT

This section provides an overview of the *Boral Resources (NSW) Pty Ltd Dunmore Quarry Independent Environmental Audit 2014* (Hyder, 2014). It summarises the actions taken by Boral in response to the recommendations and non-compliances identified in the previous audit.

### 3.1 2014 Audit Findings Progress

Twenty-two (22) recommendations were made in the 2014 audit and are presented in Table 3-1 along with progress noted during the 2017 audit. The audit concluded a number of deficiencies relate to inadequacies in record keeping and management of correspondence, document control and compliance tracking. The 2014 audit noted a number of the non-compliances with the conditions of consent identified in the 2006 audit remained non-compliant. Compliance with the EPL and adequacy of strategies, plans and programs was also reviewed as part of the 2014 audit. The previous audit concluded the overall environmental performance of the site was **'satisfactory'**.

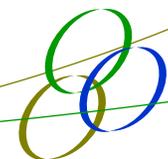
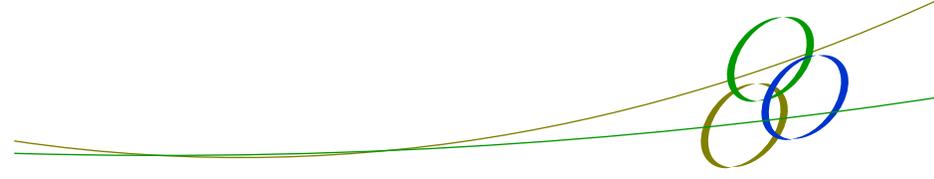
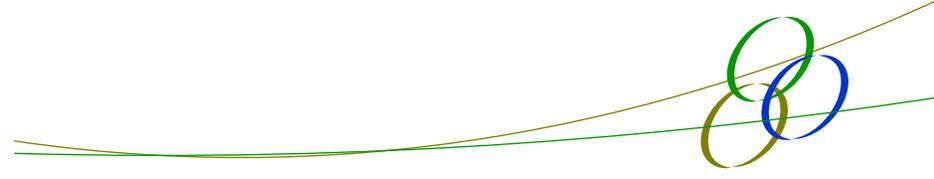


Table 3-1: 2014 Audit Findings

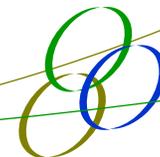
#	2014 Audit Finding	Response/Action	Evidence Noted During 2017 Audit	2017 Conclusion
<b>Public Notice of Blasting</b>				
DQ1/14	Ensure that information regarding the blast hotline is advertised in a local newspaper annually. Alternately, blast information should be provided on the Dunmore Quarry website (discussions with Kate Jackson identified that the website is still being populated and would be functional by early October 2014). Notification that the site was functional was received on the 03/11/2014, however a section on last information could not be identified at <a href="http://www.boral.com.au/Article/dunmore_quarry_mainpage.asp">http://www.boral.com.au/Article/dunmore_quarry_mainpage.asp</a>	Modification 8 updated the development consent to prescribe operation of a blasting hotline, or alternative system agreed by the Secretary. A hotline has been established which can be registered for via the project website.	Consolidated conditions of consent, Boral response to 2015 audit recommendations 17/02/2017, Boral website: <a href="http://www.boral.com.au/article/dunmore_quarry_contacts.asp">http://www.boral.com.au/article/dunmore_quarry_contacts.asp</a> .	<b>Complete and Satisfactory</b>
<b>Fines Management Plan</b>				
DQ2/14	It is suggested that Boral enter into discussions with DP&E regarding revising the details of this condition. It may be more appropriate that implementation of the Fines Management Plan is triggered once stockpiles of fines reach a certain value.	Condition amended Modification 8.	Consolidated conditions of consent, Boral response to 2015 audit recommendations letter 17/02/2017.	<b>Completed and Satisfactory</b>
<b>Site Water Balance</b>				
DQ3/14	It is suggested that Boral enter into discussions with DP&E regarding revising the details of this condition.  The water balance was revised as part of the amended Water Management Plan (Evans and Peck, April 2008) in light of the new dam configuration and water transfer	Condition amended as part of Modification 8.	Consolidated conditions of consent, Boral response to 2015 audit recommendations letter 17/02/2017.	<b>Completed and Satisfactory</b>



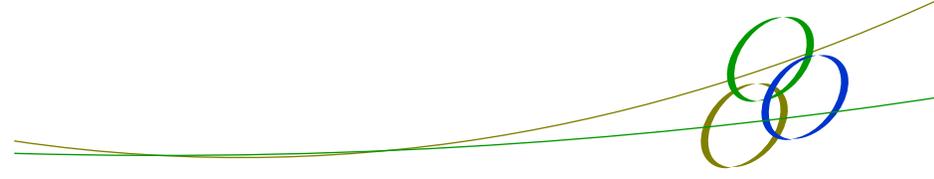
#	2014 Audit Finding	Response/Action	Evidence Noted During 2017 Audit	2017 Conclusion
	<p>systems onsite. Therefore, the water balance presented in the EIS is no longer valid.</p> <p>It would be more appropriate to provide information regarding:</p> <ul style="list-style-type: none"> <li>• Water demand for the previous year</li> <li>• Rainfall and inflows for the previous year, as compared to the average presented in the water balance</li> <li>• Dam storage levels and the possible implications on sourcing required demand from onsite dams and/or mains.</li> </ul>			
<b>Flocculant Management Plan</b>				
<b>DQ4/14</b>	It is suggested that Boral enter into discussions with DP&E regarding deleting this condition.	Condition deleted as part of Modification 8.	Consolidated conditions of consent, Boral response to 2015 audit recommendations letter 17/02/2017, Water Management Plan, site inspection.	<b>Completed and Satisfactory</b>
<b>Other Water Management Works</b>				
<b>DQ5/14</b>	It is suggested that Boral enter into discussions with DP&E regarding deleting this condition if the above actions are to the satisfaction of the Director-General.	Proposal to delete Schedule 4, Condition 38 was included in the Environmental Assessment for Modification 8 as the actions have been completed and reported to the EPA and Secretary.	Consolidated conditions of consent, Boral response to 2015 audit recommendations letter 17/02/2017.	<b>Incomplete and Partially Satisfactory</b>



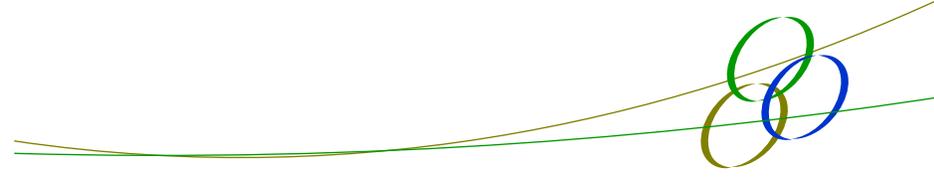
#	2014 Audit Finding	Response/Action	Evidence Noted During 2017 Audit	2017 Conclusion
<b>Monitoring (Groundwater)</b>				
DQ6/14	It is suggested that Boral initiate discussions with DP&E regarding the purpose of regional groundwater monitoring. If this information is not being used for decision-making, then the cost associated with monitoring may not be justified.	Modification 8 included insertion of a note detailing regional groundwater monitoring may be permitted by the Secretary to be suspended on the provision that two years of monitoring data show negligible impact.	Consolidated conditions of consent, Boral response to 2015 audit recommendations letter 17/02/2017.	<b>Completed and Satisfactory</b>
<b>Site Water Management Plan</b>				
DQ7/14	Currently the WMP and associated plans and strategies are not cohesive and are presented more as technical consultancy reports, rather than operational plans that define the issue, present the management objectives and actions and identify monitoring and review to promote ongoing improvement.  It is recommended that all water management plans and strategies be reviewed, updated (based on the relevant guidelines) and integrated into a single operational document.	The site WMP has been updated as per the recommendation.	WMP (Arcadis, 2016).	<b>Completed and Satisfactory</b>
<b>Erosion &amp; Sediment Control Plan</b>				
DQ8/14	The ESCP should be prepared as a separate plan (within the WMP) that address the requirements of the Blue Book and this condition.	ESCP has been prepared as a separate plan within the WMP.	Page 27 of the WMP (Arcadis, 2016).	<b>Completed and Satisfactory</b>



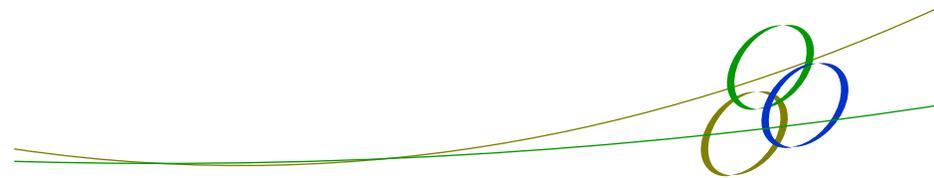
#	2014 Audit Finding	Response/Action	Evidence Noted During 2017 Audit	2017 Conclusion
<b>Surface Water Monitoring Program</b>				
DQ9/14	The detail provided for all environmental monitoring is limited, and in some instances, does not fully cover the requirements of the Development Consent. It is suggested that Environmental Monitoring Program be reviewed to ensure the necessary detail is included.	The Monitoring Program was last updated in March, 2014. The updated management plans have addressed relevant monitoring requirements.	Environmental Monitoring Program (Boral, 2014), and management plans. The Environmental Monitoring Program was not revised following the 2014 audit, or following Modification 7 and 8, or following the revised plans, strategies and programs. However, the updated management plans contain details of the relevant monitoring requirements.	<b>Completed and Satisfactory</b>
<b>Ground Water Monitoring Program</b>				
DQ10/14	A groundwater monitoring program should be established to meet elements (a) and (b) of this condition, and as detailed in the EMP.  The rationale for including regional groundwater monitoring in this condition, and how the subsequent information will be used, is not clear. It is suggested that Boral initiate discussions with DPE to clarify this condition, and delete if appropriate.	A groundwater monitoring program was developed in 2016 by EMM and is included as Appendix H of the WMP.  As per DQ6/14 the condition regarding regional modification was revised as part of Modification 8.	WMP Appendix H.	<b>Completed and Satisfactory</b>
<b>Flora and Fauna Management Plan</b>				
DQ11/14	Currently the FFMP and associated plans and protocols are not cohesive and it is difficult to identify the key issues to be managed, the management objectives and actions to be implemented, the proposed	The Flora and Fauna Management Plan was updated in November of 2016.	Flora and Fauna Management Plan (Arcadis, 2016).	<b>Completed and Satisfactory</b>



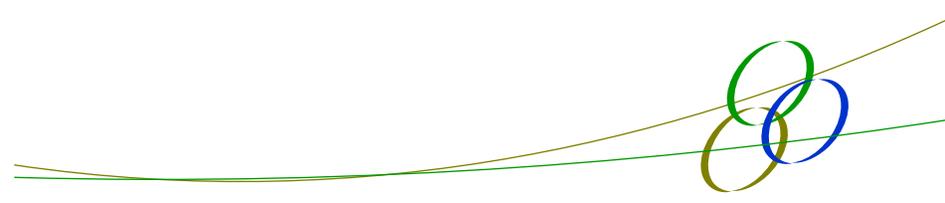
#	2014 Audit Finding	Response/Action	Evidence Noted During 2017 Audit	2017 Conclusion
	<p>schedule for implementation or the monitoring and review commitments.</p> <p>It is recommended that all flora and fauna management plans and strategies be reviewed, updated (based on the relevant guidelines and best practice) and integrated into a single operational document.</p>			
<b>Independent Audit of the Flora &amp; Fauna Management Plan</b>				
<b>DQ12/14</b>	It is recommended that Boral initiates an independent audit of the Flora and Fauna Management Plan as soon as possible. A request to prepare a proposal for the audit was signed on the 04/11/2014.	A suitably qualified, experienced and independent auditor was endorsed 28/09/16 and the audit is currently underway.	Engagement of EPS Director of Ecology to complete an independent audit of the Flora and Fauna Management Plan.	<b>Completed and Unsatisfactory</b> Timing not in-line with recommendation of previous audit.
<b>Rehabilitation Management Plan</b>				
<b>DQ13/14</b>	Undertake a complete review of the RMP to ensure it meets the requirements of this condition, represents BMP and integrates effectively with other elements of the FFMP.	The Rehabilitation Management Plan has been reviewed and updated.	Rehabilitation Management Plan (Arcadis, 2016).	<b>Completed and Satisfactory</b>
<b>Rehabilitation and Conservation Bond</b>				
<b>DQ14/14</b>	Ensure that the Rehabilitation and Conservation Bond is lodged as soon as possible. This requirement should be included on a regulatory compliance schedule and responsibility allocated.	Section 6 of the Rehabilitation Management Plan (Arcadis, 2016) notes a bank guarantee is considered acceptable, however the Response to IEA Recommendations letter 17/02/2017 noted that the bond will be paid shortly.	Rehabilitation Management Plan (Arcadis, 2016), Boral response to 2015 audit recommendations letter 17/02/2017, signed bank guarantee sighted.	<b>Completed and Satisfactory</b>



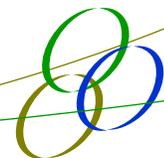
#	2014 Audit Finding	Response/Action	Evidence Noted During 2017 Audit	2017 Conclusion
<b>Reporting (Rehabilitation Management Plan)</b>				
DQ15/14	The actions reported in the AEMR should be linked to the actions identified in the RMP. As identified above, undertake a complete review of the RMP to ensure it meets the requirements of S4, C 54, represents BMP and integrates effectively with other elements of the FFMP.	The AEMR contains reporting on the rehabilitation management plan, but not clear reporting on the actions in Table 5 of the RMP.	Rehabilitation Management Plan (Arcadis, 2016), AEMR 2014 – 2016.	<b>Incomplete and Unsatisfactory</b>
<b>Transport Management Plan</b>				
DQ16/14	Prepare the TMP as soon as possible, and integrate the components already developed to date.	A TMP has been prepared for the site.	TMP (The Transport Planning Partnership Pty Ltd, 2016).	<b>Completed and Satisfactory</b>
<b>Waste Minimisation</b>				
DQ17/14	Seek appropriate approval for tyre reuse on the site as soon as possible.	Boral has prepared a tyre register and noted in Boral response to IEA recommendations letter 17/02/2017 that <i>“Discussions with the Environmental Protection Authority will begin as soon as possible and if required the appropriate approval sought”</i> .	Boral response to 2015 audit recommendations letter 17/02/2017. Tyres now being recycled along with conveyer belts through company ‘Tyre Cycle’. Tyres being reused throughout the site. A number of tyres remain stockpiled on site.	<b>Incomplete and Partially Satisfactory</b>
<b>Waste Reporting</b>				
DQ18/14	Waste reporting could include types and weights/ volumes of waste generated and recycled. This would allow for comparisons between years and to identify the	Boral has committed to updating the waste tracking system to updated and complete the comparison for AMERs in the Boral response to	Boral response to 2015 audit recommendations letter 17/02/2017, AEMR 2014 – 2016. Classifications and end uses are now	<b>Incomplete and Partially Satisfactory</b>



#	2014 Audit Finding	Response/Action	Evidence Noted During 2017 Audit	2017 Conclusion
	effectiveness of waste reduction measures/initiatives.	IEA Recommendations letter 17/02/2017.	included in the AEMR, but weights/volumes are not reported.	
<b>EMS</b>				
<b>DQ19/14</b>	Provide a copy of the Environmental Management Strategy to Council and maintain records of communication. Upload a copy of the strategy to the Boral Dunmore Quarry website.	The condition requiring an EMS was revised as part of Modification 8. Preparation of EMS is only required "if the Secretary requires".	Consolidated conditions of consent, Boral response to 2015 audit recommendations letter 17/02/2017.	<b>N/A</b>
<b>Annual Review</b>				
<b>DQ20/14</b>	Review the format and content of the AEMR and ensure that current and accurate information is provided.	The AEMR format was reviewed and the 2016 AEMR follows a new format.	AEMR 2014 – 2016, Boral response to 2015 audit recommendations letter 17/02/2017.	<b>Completed and Satisfactory</b>
<b>Regular Reporting</b>				
<b>DQ21/14</b>	Ensure the website is populated with the required information by the end of November 2014.	The website has been populated with documents. Some documents required by the consent are yet to be uploaded and some documents are not the current versions.	Boral website, Boral response to 2015 audit recommendations letter 17/02/2017. Environmental Coordinator has committed to reviewing and updating the relevant documents on the website, but this has yet to occur.	<b>Incomplete and Unsatisfactory</b>
<b>Revision of Strategies, Plans and Programs</b>				
<b>DQ22/14</b>	Boral Dunmore Quarry should note that all strategies, plans, and programs required under this consent should be reviewed annually 3 months after the submission of the Annual Review.  As identified previously, there have been a number of non-compliances regarding the meeting the timeframes for the	Boral has committed to developing a review schedule in the Boral response to IEA recommendations letter 17/02/2017.	Boral response to 2015 audit recommendations letter 17/02/2017, AEMR. Sighted Environmental Permit Planner tracking system and wall calendar. Photographs included in Attachment 1(i).	<b>Completed and Satisfactory</b>



#	2014 Audit Finding	Response/Action	Evidence Noted During 2017 Audit	2017 Conclusion
	preparation strategies, plans, and programs and document reviews have been sporadic. As such a review schedule should be established and maintained to ensure future compliance with this requirement.			



## 4 COMPLIANCE WITH THE DEVELOPMENT CONSENT

An assessment of compliance with the conditions contained within Schedule 3, 4 and 5 of Development Consent has been completed and presented in Table 4-2. The assessment lists the conditions, evidence and information sources considered and an assessment against compliance. Where applicable, opportunities for improvement have been identified.

Modifications of the Development Consent since it was issued in 2004 have been included in Table 4-2. Changes are noted in coloured highlighted as follows:

- Modification 1 – Blue;
- Modification 2 – Red;
- Modification 3 – Green;
- Modification 4 and 5 – Pink;
- Modification 6 – Purple;
- Modification 7 – Maroon;
- Modification 8 – Orange.

### 4.1 Summary of Findings

A summary of the audit findings is presented in Table 4-1.

Table 4-1: Summary of Findings

Schedule	Audit Finding					Total
	Compliant	Non-compliant	N/A	Compliant in Part	Not Able to Determine	
3	8	N/A	5	1	N/A	14
4	54	3	9	17	2	84
5	8	2	N/A	2	N/A	12
<b>Total</b>	70	4	14	20	2	110

The consent conditions assessed as being 'non-complaint' or 'compliant in part' generally relate to:

- Strategies, plans, programs and other documentation not being produced, reviewed or approved in the required time periods; and
- Insufficient monitoring and record-keeping.

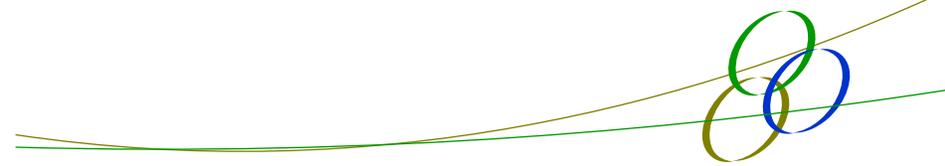
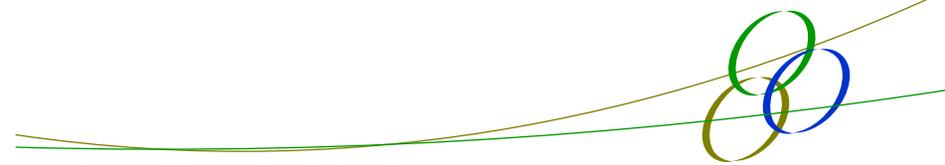
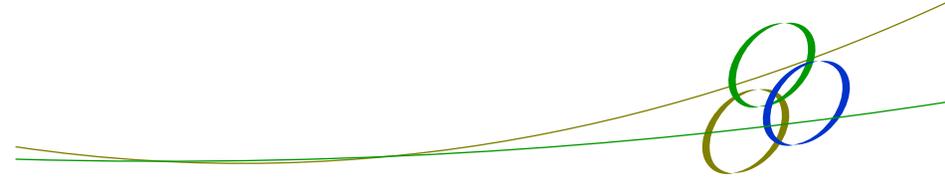


Table 4-2: Review of Development Consent

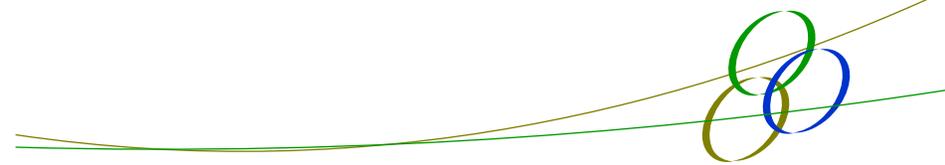
Number	Details	Evidence Sources/Questions	Audit Finding
<b>Schedule 3</b>			
<b>Obligation to Minimise Harm to the Environment</b>			
1	The Applicant <b>must</b> implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.	Environmental Controls, Environmental Management Plans.	<b>Compliant</b>
<b>Terms of Approval</b>			
2	<p>The Applicant <b>must</b> carry out the development generally in accordance with the:</p> <ul style="list-style-type: none"> <li>(a) DA 470-11-2003;</li> <li>(b) EIS titled <i>Environmental Impact Statement for the proposed Dunmore Quarry Production Increase</i>, Volumes 1 &amp; 2, dated November 2003, and prepared by R. W. Corkery &amp; Company Pty Limited;</li> <li>(c) The letter from Boral Quarries to the Department dated 20 October 2005 about the application to modify Dunmore Quarry development consent DA 470-11-2003, and accompanying plans 4034032_01 issue E, and 4034032_EL issue B;</li> <li>(d) <b>modification application MOD 59-4-2006 and letter from Boral Quarries to the Department dated 13 April 2006;</b></li> <li>(e) <b>Modification Application 470-11-2003 Mod 3, letter to the Department dated 28 March 2008, and accompanying plans GE-DU-2961-02 Rev D; GE-DU-2962-01 Rev B; GE-DU-2963-01 Rev 0; and GE-DU-2964-02 Rev 0; and</b></li> <li>(f) <b>Modification Application 470-11-2003 Mod 4 and accompanying SEE titled <i>Statement of Environmental Effects for the proposed Dunmore Hard Rock Quarry Extension</i>, dated May 2008, and letter from Boral Quarries &amp; Recycling to the Department dated 22 September 2008;</b></li> </ul>	Consolidated Consent, EIS and EA's, strategies, plans and programs, and site inspection.	<b>Compliant</b>



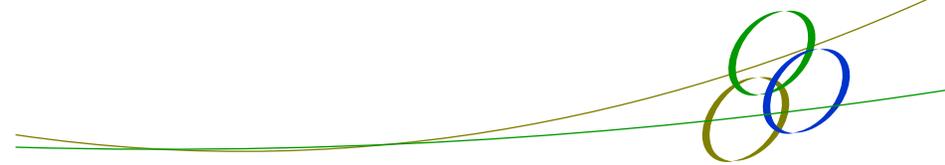
Number	Details	Evidence Sources/Questions	Audit Finding
	<p>(g) Modification Application 470-11-2003 Mod 5 and accompanying letter from Boral Quarries &amp; Recycling to the Department dated 16 September 2008 (and accompanying plan GE-DU-2966-01 Rev E);</p> <p>(h) Modification Application 470-11-2003 Mod 6 and accompanying document titled <i>Environmental Assessment Dunmore Hard Rock Quarry- Modification 6</i>, prepared by EMGA Mitchell McLennan and dated 19 November 2012;</p> <p>(i) Modification Application 470-11-2003 Mod 7 and accompanying document titled <i>Proposed Blending Plant Dunmore Hardrock Quarry DA 470-11-2003 – Modification 7, Environmental Assessment</i>, dated December 2014; and</p> <p>(j) Modification Application 470-11-2003 Mod 8 and accompanying document titled <i>Dunmore Quarry – Modification 8 Environmental Assessment</i> dated August 2016 and accompanying Response to Submissions, dated 22 September 2016.</p>		
2A	The Applicant must carry out the development in accordance with the conditions of this consent.	Consolidated Consent, strategies, plans and programs, and site inspection.	<b>Compliant</b>
3	If there is any inconsistency between the documents in condition 2, the most recent document shall prevail to the extent of the inconsistency. The conditions of this consent shall prevail over the documents in condition 2 to the extent of any inconsistency.	N/A	N/A
4	<p>The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department’s assessment of:</p> <p>(a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent (including any stages of these documents);</p>	Correspondence with DP&E.	<b>Compliant</b>



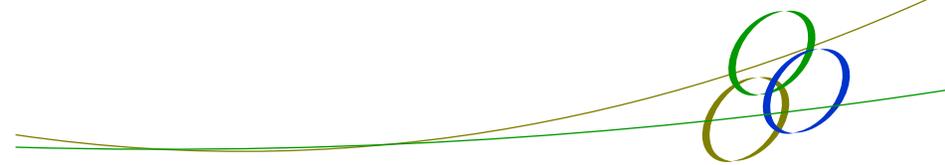
Number	Details	Evidence Sources/Questions	Audit Finding
	<p>(b) any reviews, reports or audits commissioned by the Department regarding compliance with this consent; and</p> <p>(c) the implementation of any actions or measures contained in these documents.</p>		
<b>Quarrying Operations</b>			
5	<p>The Applicant may carry out quarrying operations on the site until 30 September 2034.</p> <p><i>Note: Under this consent, the Applicant is required to rehabilitate the site and carry out additional undertakings to the satisfaction of the Secretary. Consequently, this consent will continue to apply in all other respects other than the right to conduct quarrying operations until the rehabilitation of the site and those undertakings have been carried out to a satisfactory standard.</i></p>	N/A	N/A
6	<p>The Applicant <b>must</b> not produce or transport more than 2.5 million tonnes of quarry products a calendar year from the development.</p>	Production, sales and transport records.	<p><b>Compliant</b></p> <p><u>2014:</u> Produced = 1,059,594t Transported = 1,243,912t</p> <p><u>2015:</u> Produced = 1,269,198t Transported = 1,337,231t</p> <p><u>2016:</u> Produced = 1,695,330t Transported = 1,609,861t</p> <p><u>2017:</u> A review of the available data for 2017 revealed the limits have not been exceeded thus</p>



Number	Details	Evidence Sources/Questions	Audit Finding
			<p>far. Transport total at 30 May 2017 is 610,758t, and total production is 749,713t.</p> <p><b>Opportunity for improvement [DQ1/17]:</b> The AMER/Annual Reviews report on the production and transport figures as financial year, not calendar year. It is recommended reporting is updated to be consistent with the condition which clearly nominates calendar year.</p>
<b>Transportation</b>			
7	The Applicant <b>must</b> not transport, or permit to be transported, more than 1.5 million tonnes of quarry products from the site a calendar year by road, except in an emergency with the written approval of the <b>Secretary</b> .	Production, sales and transport records.	<p><b>Compliant</b></p> <p>2014: 724,138t            2015: 1,124,057t            2016: 1,318,886t            2017: 529,744t as at 30 May.</p>
7a	The Applicant <b>must</b> maximise transport of quarry products from the site by rail, so far as is reasonable and feasible	Production, sales and transport records.	<p><b>Compliant</b></p> <p>Boral would prefer transport via rail however line capacity is limited.</p>
<b>Surrender of Consents</b>			
8	<b>Deleted</b>	N/A	<b>N/A</b>



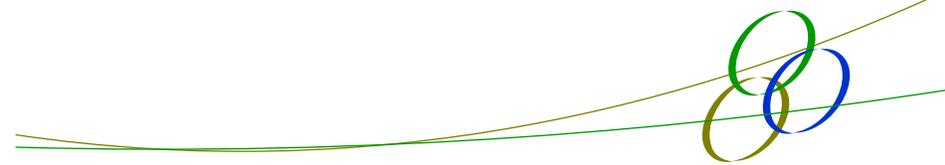
Number	Details	Evidence Sources/Questions	Audit Finding
<b>Structural Adequacy</b>			
9	<p>The Applicant <b>must</b> ensure that any new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>• Under Part 4A of the EP&amp;A Act, the Applicant is required to obtain construction and occupation certificates for any building works.</li> <li>• Part 8 of the EP&amp;A Regulation sets out the detailed requirements for the certification of development</li> </ul>	Interview with Quarry Manager, BCA, Construction/ Occupation Certificates.	<p><b>Compliant in part</b></p> <p>No new buildings or structures created. New kitchen was built within existing building. A BCA and CC/OC was requested for these works, but no evidence provided it was required or completed.</p>
<b>Demolition</b>			
10	The Applicant <b>must</b> ensure that all demolition work is carried out in accordance with <i>AS 2601-2001: The Demolition of Structures</i> , or its latest version.	Interview with Quarry Manager.	<p><b>N/A</b></p> <p>No demolition has occurred.</p>
<b>Protection of Public Infrastructure</b>			
11	<p>The Applicant <b>must:</b></p> <p>(a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and</p> <p>(b) relocate, or pay the full costs associated with relocating any public infrastructure that needs to be relocated as a result of the development.</p>	Interview with Quarry Manager.	<p><b>N/A</b></p> <p>No public infrastructure has been damaged or relocated.</p>
<b>Operation of Plant and Equipment</b>			
12	<p>The Applicant <b>must</b> ensure that all plant and equipment at the site, or used in connection with the development, are:</p> <p>(a) maintained in a proper and efficient condition; and</p> <p>(b) operated in a proper and efficient manner.</p>	Interview with Quarry Manager, sighted software/program – Enterprise Asset Management that is	<p><b>Compliant</b></p>



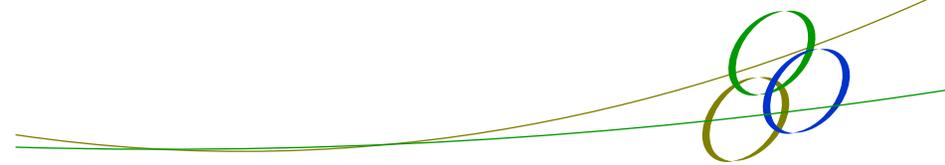
Number	Details	Evidence Sources/Questions	Audit Finding										
		used as a maintenance schedule.											
<b>Schedule 4</b>													
<b>Identification of Boundaries</b>													
1	<p>Within 6 months of the date of this consent and any subsequent modification involving a change to the approved limits of extraction, the Applicant must:</p> <ul style="list-style-type: none"> <li>(a) engage a registered surveyor to mark-out the boundaries of the approved limits of extraction;</li> <li>(b) submit a survey plan of these boundaries to the Secretary; and</li> <li>(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.</li> </ul>	Applies to Modification 7 & 8. Review of modifications approved.	<p><b>Compliant</b></p> <p>Neither Modification 7 nor 8 involved extension of the extraction area. Site extraction boundary markers sighted (photographs included in Attachment 1(ii)).</p>										
2	<p>Upon receiving a written request for acquisition from the landowner of the land listed in Table 1, the Applicant <b>must</b> acquire the land in accordance with conditions 3 and 4 below.</p> <table border="1" data-bbox="369 948 1226 1198"> <thead> <tr> <th data-bbox="369 948 795 997">Land Owner</th> <th data-bbox="800 948 1226 997">Land Identification</th> </tr> </thead> <tbody> <tr> <td data-bbox="369 998 795 1047">Creagan</td> <td data-bbox="800 998 1226 1047">Lot 5 DP1001931</td> </tr> <tr> <td data-bbox="369 1049 795 1097">Stocker</td> <td data-bbox="800 1049 1226 1097">Lot 1 DP745632</td> </tr> <tr> <td data-bbox="369 1099 795 1148">McParland/ Fogarty</td> <td data-bbox="800 1099 1226 1148">Lot 10 DP977931</td> </tr> <tr> <td data-bbox="369 1149 795 1198">Kimmorley Property</td> <td data-bbox="800 1149 1226 1198">Lot 1 DP998321</td> </tr> </tbody> </table> <p><i>Table 1: Land Subject to Acquisition on Request</i></p> <p><i>Note: Land titled 'McParland/Fogarty' has been acquired and is now quarry owned.</i></p>	Land Owner	Land Identification	Creagan	Lot 5 DP1001931	Stocker	Lot 1 DP745632	McParland/ Fogarty	Lot 10 DP977931	Kimmorley Property	Lot 1 DP998321	No written requests received.	<p><b>Compliant</b></p>
Land Owner	Land Identification												
Creagan	Lot 5 DP1001931												
Stocker	Lot 1 DP745632												
McParland/ Fogarty	Lot 10 DP977931												
Kimmorley Property	Lot 1 DP998321												



Number	Details	Evidence Sources/Questions	Audit Finding
3	<p>Within 6 months of receiving a written request from the landowner, the Applicant <b>must</b> pay the landowner:</p> <ul style="list-style-type: none"> <li>(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 development the subject of this DA, having regard to the: <ul style="list-style-type: none"> <li>• existing and permissible use of the land, in accordance with the applicable environmental 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; and</li> </ul> </li> <li>(b) the reasonable costs associated with: <ul style="list-style-type: none"> <li>• relocating within the Shellharbour or Kiama local government areas, or to any other local government area determined by the <b>Secretary</b>; and</li> <li>• obtaining legal and expert advice for determining the acquisition price of the land and the terms upon which it is to be acquired; and</li> </ul> </li> <li>(c) reasonable compensation for any disturbance caused by the land acquisition process.</li> </ul> <p>However, if within 6 months of receiving this written request, the Applicant 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 <b>Secretary</b> for resolution. Upon receiving such a request, the <b>Secretary</b> shall request the NSW President of the Australian Property Institute to appoint a qualified independent valuer to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or the terms upon which the land is to be acquired. If either party disputes the independent valuer’s determination, the independent valuer must refer</p>	No written requests received.	N/A



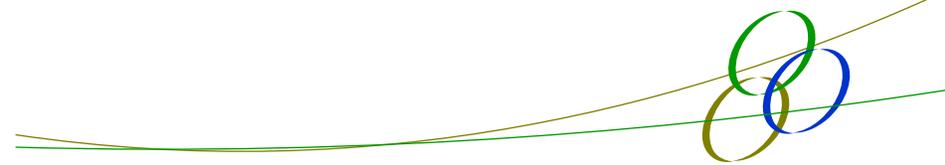
Number	Details	Evidence Sources/Questions	Audit Finding
	the matter back to the <b>Secretary for resolution</b> . If the landowner refuses to accept this offer within 6 months of the date of the Applicant's offer, the Applicant's obligations to acquire the land cease, unless otherwise agreed by the <b>Secretary</b> .		
4	The Applicant <b>must</b> bear the costs of any valuation or survey assessment requested by the independent valuer or the <b>Secretary</b> , and the costs of determination referred to in Condition 3 above.	No written requests received.	<b>N/A</b>
5	If the Applicant and landowner agree that only part of the land should be acquired, then the Applicant <b>must</b> pay all reasonable costs associated with obtaining Council approval for any plan of subdivision, and registration of the plan at the Office of the Registrar-General.	No written requests received.	<b>N/A</b>
6	While the land listed in Table 1 is privately-owned land, the Applicant <b>must</b> comply with the requirements applying to this land in these conditions of consent.	Applicable conditions: <ul style="list-style-type: none"> <li>• Schedule 4, Condition 7;</li> <li>• Schedule 4, Condition 16;</li> <li>• Schedule 4, Condition 17;</li> <li>• Schedule 4, Condition 19;</li> <li>• Schedule 4, Condition 20;</li> <li>• Schedule 4, Condition 22;</li> <li>• Schedule 4, Condition 25.</li> </ul>	<b>Compliant in part</b> All conditions 'compliant' except for Schedule 4, Condition 25 which is 'compliant in part'.



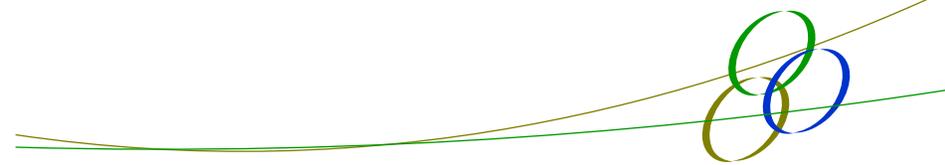
Number	Details	Evidence Sources/Questions	Audit Finding																																															
<b>Noise</b>																																																		
<b>Noise Limits</b>																																																		
7	<p>The Applicant <b>must</b> ensure that the noise generated by the development does not exceed the criteria specified in Table 2.</p> <table border="1" data-bbox="369 500 1213 1107"> <thead> <tr> <th rowspan="3">Receiver Locations</th> <th colspan="6">Noise Limits dB(A)</th> </tr> <tr> <th colspan="4">L<sub>Aeq</sub> (15min)</th> <th colspan="2">L<sub>A1</sub> (1min)</th> </tr> <tr> <th>Day</th> <th>Evening</th> <th>Night</th> <th>Shoulder</th> <th>Night</th> <th>Shoulder</th> </tr> </thead> <tbody> <tr> <td>Location A – McParland Residence</td> <td>35</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> <td>45</td> </tr> <tr> <td>Location K – Stocker Residence</td> <td>49</td> <td>44</td> <td>38</td> <td>47</td> <td>48</td> <td>55</td> </tr> <tr> <td>Location O – Dunmore Lakes</td> <td>49</td> <td>44</td> <td>38</td> <td>47</td> <td>48</td> <td>55</td> </tr> <tr> <td>Location J – Creagan Residence</td> <td colspan="6">Negotiated agreement in place.</td> </tr> </tbody> </table> <p><i>Table 2: Noise Impact Assessment Criteria for the Development</i></p> <p>Notes:</p> <ol style="list-style-type: none"> <li>Receiver locations nominated in Appendix A Figure A2 of the report prepared by Richard Heggie Associates Report No.605/03 Titled Part 1: Noise Assessment – Dunmore Quarry Production Increase.</li> </ol>	Receiver Locations	Noise Limits dB(A)						L <sub>Aeq</sub> (15min)				L <sub>A1</sub> (1min)		Day	Evening	Night	Shoulder	Night	Shoulder	Location A – McParland Residence	35	35	35	35	45	45	Location K – Stocker Residence	49	44	38	47	48	55	Location O – Dunmore Lakes	49	44	38	47	48	55	Location J – Creagan Residence	Negotiated agreement in place.						<p>Annual Noise Compliance Monitoring reports 2014 - 2016, records, community complaints database, BoM, was noise monitoring conducted at appropriate receiver locations? Was noise monitoring conducted during appropriate meteorological conditions?</p>	<p><b>Compliant</b></p> <p>Monitoring completed in the correct locations in 2014, 2015, and 2016. Monitoring completed in the correct wind speed conditions in 2014, 2015, and 2016. Sound levels do not exceed criteria in Table 2 in 2014, 2015, and 2016.</p>
Receiver Locations	Noise Limits dB(A)																																																	
	L <sub>Aeq</sub> (15min)				L <sub>A1</sub> (1min)																																													
	Day	Evening	Night	Shoulder	Night	Shoulder																																												
Location A – McParland Residence	35	35	35	35	45	45																																												
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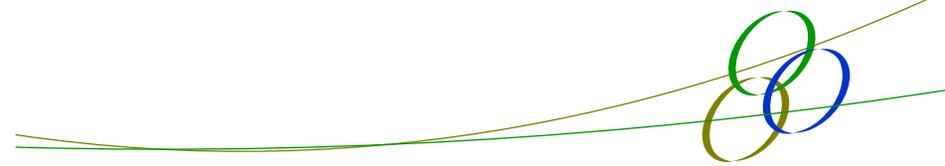
Number	Details	Evidence Sources/Questions	Audit Finding
	<p>2. <i>The above table may be varied if the Applicant enters into a negotiated agreement with any of the affected residents, or if existing agreements become void.</i></p> <p>3. <i>Noise from the development is to be measured at the most affected point on or within the residential boundary or at the most affected point within 30m of the dwelling (rural situations) where the dwelling is more than 30m from the boundary, to determine compliance with the LAeq(15 minute) noise limits in the above table. Where it can be demonstrated that direct measurement of noise from the development is impractical, the EPA may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors presented in Section 4 of the NSW Industrial Noise Policy <b>must</b> also be applied to the measured noise levels where applicable.</i></p> <p>4. <i>Noise from the development is to be measured at 1m from the dwelling façade to determine compliance with the LA1(1minute) noise limits in above table.</i></p> <p>5. <i>The noise emission limits identified in Table 1 apply under meteorological conditions of:</i></p> <ul style="list-style-type: none"> <li>• <i>Wind speed up to 3m/s at 10 metres above ground level; or</i></li> <li>• <i>Temperature inversion conditions of up to 3°C/100m and wind speed up to 2m/s at 10 metres above the ground.</i></li> </ul>		
<b>Noise Investigations</b>			
8	Deleted	N/A	N/A



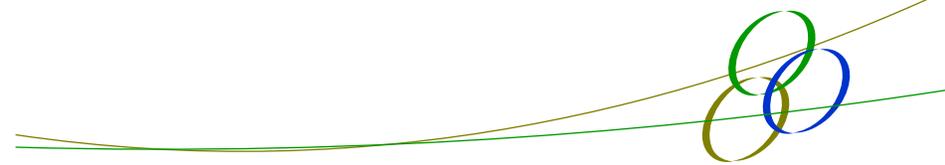
Number	Details	Evidence Sources/Questions	Audit Finding																				
<b>Operating Hours</b>																							
9	<p>The Applicant <b>must</b> comply with the operating hours in Table 3:</p> <table border="1" data-bbox="367 418 1228 1092"> <thead> <tr> <th data-bbox="367 418 644 500">Activity</th> <th data-bbox="648 418 974 500">Days of the Week</th> <th data-bbox="978 418 1228 500">Time</th> </tr> </thead> <tbody> <tr> <td data-bbox="367 503 644 581">Extraction and processing</td> <td data-bbox="648 503 974 581">Monday - Saturday</td> <td data-bbox="978 503 1228 581">6-00am to 10-00pm</td> </tr> <tr> <td data-bbox="367 584 644 662">Product Transfer to Stockpiles</td> <td data-bbox="648 584 974 662">Monday - Saturday</td> <td data-bbox="978 584 1228 662">6-00am – Midnight</td> </tr> <tr> <td data-bbox="367 665 644 828" rowspan="2">Distribution</td> <td data-bbox="648 665 974 743">Monday - Saturday</td> <td data-bbox="978 665 1228 743">24 hrs</td> </tr> <tr> <td data-bbox="648 747 974 828">Sunday</td> <td data-bbox="978 747 1228 828">See Condition 10, Schedule 4</td> </tr> <tr> <td data-bbox="367 831 644 909">Maintenance</td> <td data-bbox="648 831 974 909">Monday – Sunday</td> <td data-bbox="978 831 1228 909">24 hrs</td> </tr> <tr> <td data-bbox="367 912 644 1092">Construction (including construction of the bund under Modification 8)</td> <td data-bbox="648 912 974 1092">Monday - Saturday</td> <td data-bbox="978 912 1228 1092">7-00am to 6-00pm Monday to Friday 8-00am to 1-00pm Saturday</td> </tr> </tbody> </table> <p><i>Table 3: Operating Hours for the Development</i></p>	Activity	Days of the Week	Time	Extraction and processing	Monday - Saturday	6-00am to 10-00pm	Product Transfer to Stockpiles	Monday - Saturday	6-00am – Midnight	Distribution	Monday - Saturday	24 hrs	Sunday	See Condition 10, Schedule 4	Maintenance	Monday – Sunday	24 hrs	Construction (including construction of the bund under Modification 8)	Monday - Saturday	7-00am to 6-00pm Monday to Friday 8-00am to 1-00pm Saturday	<p>Reviewed Quarry Reporting System (QRS), interview with Quarry Manager and Maintenance Supervisor.</p>	<p><b>Compliant</b> Interrogation of QRS software showed no non-compliances with approved operating hours. The software graphically displayed the limits of the consented operating hours clearly.</p>
Activity	Days of the Week	Time																					
Extraction and processing	Monday - Saturday	6-00am to 10-00pm																					
Product Transfer to Stockpiles	Monday - Saturday	6-00am – Midnight																					
Distribution	Monday - Saturday	24 hrs																					
	Sunday	See Condition 10, Schedule 4																					
Maintenance	Monday – Sunday	24 hrs																					
Construction (including construction of the bund under Modification 8)	Monday - Saturday	7-00am to 6-00pm Monday to Friday 8-00am to 1-00pm Saturday																					
10	<p>The Applicant may only distribute quarry products off-site by road on up to 15 Sundays a year, between 8am and 6pm, unless the EPA approves otherwise. This restriction does not apply to distribution by rail, which is allowed 24 hours a day, 7 days a week.</p>	<p>Quarry Reporting System (QRS), interview with Quarry Manager.</p>	<p><b>Compliant</b> No off-site distribution has occurred on a Sunday.</p>																				



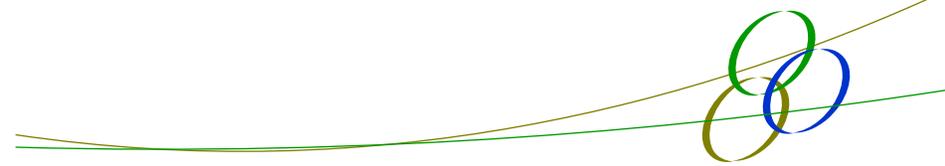
Number	Details	Evidence Sources/Questions	Audit Finding
<b>Oversized Material</b>			
11	<p>The Applicant <b>must</b> not process any oversized raw feed material at the development during the shoulder period.</p> <p><i>Note: For the purpose of this condition “oversized raw feed material” is defined as where more than 50% of the shot is over 900mm in diameter.</i></p>	<p>Quarry Reporting System (QRS), interview with Quarry Manager.</p>	<p><b>Not able to determine</b></p> <p>Insufficient data able to be supplied to determine with certainty that oversized raw feed material is not being processed within the shoulder period. Interview with Quarry Manager indicated that it is not occurring and interrogation of QRS software indicated that work is being conducted within consented hours of operation, but no documented evidence.</p>
<b>Noise Monitoring</b>			
12	Deleted	N/A	N/A
13	<p>Within 3 months of the date of this consent, and annually thereafter, unless directed otherwise by the <b>Secretary</b>, the Applicant <b>must</b>:</p> <p>(a) commission a suitably qualified person to assess whether the development is complying with the noise impact assessment criteria in Table 2, in general accordance with the NSW Industrial Noise Policy and Australian Standard (AS) 1055-1997: “Description and Measurement of Environmental Noise”; and</p> <p>(b) provide the results of this assessment to the <b>EPA</b> and <b>Secretary</b> within a month of commissioning the assessment.</p>	<p>Annual Compliance Noise Monitoring, name and details of assessor, date of submission to the Secretary.</p>	<p><b>Compliant in part</b></p> <p>Annual Compliance Noise Monitoring completed in:</p> <ul style="list-style-type: none"> <li>• September 2014;</li> <li>• August 2015; and</li> <li>• September 2016.</li> </ul> <p>All reports were completed by SLR in accordance with Table 2 and AS 1055 – 1997.</p> <p>Submitted to EPA in the annual returns and to Secretary as</p>



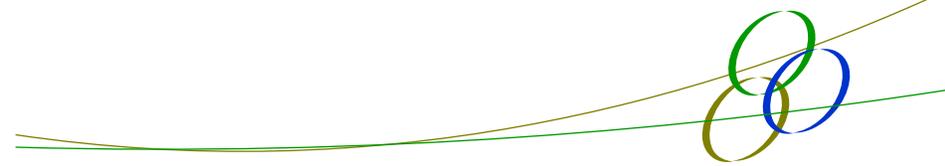
Number	Details	Evidence Sources/Questions	Audit Finding
			part of the AMER/Annual Review in 2014 and 2016. The 2015 report was not appended to a AMER/Annual Review and evidence has not been supplied that it was sent to the Secretary.
14	<p>Within 3 months of the date of this consent, the Applicant <b>must</b> prepare, and subsequently implement, a Noise Monitoring Program for the development, in consultation with the EPA, and to the satisfaction of the Secretary.</p> <p>The Applicant must implement the approved monitoring program as approved from time to time by the Secretary.</p>	Noise Monitoring Program, evidence of implementation, evidence of consultation with the EPA, correspondence with Secretary.	<p><b>Non-compliant</b></p> <p>In October 2016, the Secretary requested the noise monitoring program be reviewed and revised. No evidence provided that the Noise Monitoring Program has been reviewed in response to this request.</p> <p><b>Opportunity for improvement [DQ2/17]:</b> Review and if necessary revise the Noise Monitoring Program in accordance with Schedule 5, Condition 4.</p>
<b>Reporting</b>			
15	Deleted	N/A	N/A



Number	Details	Evidence Sources/Questions	Audit Finding						
<b>Blasting and Vibration</b>									
<b>Airblast Overpressure Criteria</b>									
16	<p>The Applicant <b>must</b> ensure that the airblast overpressure level from blasting at the development does not exceed the criteria in Table 4 at any residence or sensitive receiver on privately-owned land.</p> <table border="1" data-bbox="369 532 1224 760"> <thead> <tr> <th data-bbox="369 532 621 618">Airblast overpressure level [dB(Lin Peak)]</th> <th data-bbox="627 532 1224 618">Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td data-bbox="369 623 621 699">115</td> <td data-bbox="627 623 1224 699">5% of the total number of blasts over a period of 12 months</td> </tr> <tr> <td data-bbox="369 704 621 760">120</td> <td data-bbox="627 704 1224 760">0%</td> </tr> </tbody> </table> <p><i>Table 4: Airblast Overpressure Limits</i></p>	Airblast overpressure level [dB(Lin Peak)]	Allowable exceedance	115	5% of the total number of blasts over a period of 12 months	120	0%	<p>Airblast monitoring report and airblast monitoring record, interview with Production Supervisor.</p>	<p><b>Compliant</b></p> <p>Airblast overpressure monitoring results reported in the AMER/Annual Review from 04/04/14 – 30/07/16 were reviewed. Samples of the hard copy Orica blast reports were reviewed and interview with staff indicated no exceedances, other than reported.</p> <p>The following dates exceedances under 120db(Lin Peak) were reported:</p> <ul style="list-style-type: none"> <li>• 16/12/14 at 118.2dB(L).</li> </ul> <p>This is below the 5% allowable exceedance.</p>
Airblast overpressure level [dB(Lin Peak)]	Allowable exceedance								
115	5% of the total number of blasts over a period of 12 months								
120	0%								
<b>Ground Vibration Criteria</b>									
17	<p>The Applicant <b>must</b> ensure that the peak particle velocity from blasting at the development does not exceed the criteria in Table 5 at any residence or sensitive receiver on privately - owned land.</p>	<p>Ground vibration monitoring reporting and ground vibration monitoring record.</p>	<p><b>Compliant</b></p> <p>Ground vibration monitoring results reported in the AMER/Annual Review from 04/04/14 – 30/07/16 were reviewed. Samples of the hard copy Orica blast reports were</p>						



Number	Details	Evidence Sources/Questions	Audit Finding						
	<table border="1"> <thead> <tr> <th data-bbox="367 329 621 407">Peak particle velocity (mm/s)</th> <th data-bbox="625 329 1226 407">Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td data-bbox="367 410 621 488">5</td> <td data-bbox="625 410 1226 488">5% of the total number of blasts over a period of 12 months</td> </tr> <tr> <td data-bbox="367 492 621 548">10</td> <td data-bbox="625 492 1226 548">0%</td> </tr> </tbody> </table> <p data-bbox="367 557 716 589"><i>Table 5: Ground Vibration Limits</i></p>	Peak particle velocity (mm/s)	Allowable exceedance	5	5% of the total number of blasts over a period of 12 months	10	0%		reviewed and indicated no exceedances.
Peak particle velocity (mm/s)	Allowable exceedance								
5	5% of the total number of blasts over a period of 12 months								
10	0%								
<b>Blasting Restrictions</b>									
18	Blasting operations at the site may only take place: <ul style="list-style-type: none"> <li>a) between 9am and 5pm Monday to Saturday inclusive;</li> <li>b) are limited to 2 blasts each day; and</li> <li>c) at such other times as may be approved by EPA.</li> </ul>	Airblast monitoring report and airblast monitoring records	<b>Compliant</b> Monitoring reports were consistent with the times/frequencies nominated in the condition. No additional times have been approved by the EPA.						
<b>Public Notice</b>									
19	During the life of the development, the Applicant <b>must operate a blasting hotline, or alternative system agreed to by the Secretary, to enable to public to get up-to-date information on blasting operations at the development.</b>	Evidence of blasting hotline, complaints register, interview with Production Supervisor.	<b>Compliant</b> A blasting hotline is available for the project, as advertised on the website. Individuals can register for the hotline via the project website. Link: <a href="http://www.boral.com.au/article/dunmore_quarry_contacts.asp">http://www.boral.com.au/article/dunmore quarry contacts .asp</a>						



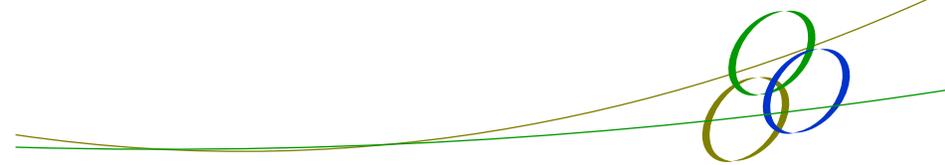
Number	Details	Evidence Sources/Questions	Audit Finding
<b>Blast Management Plan</b>			
20	<p>The Applicant must prepare a Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> <li>(a) be submitted to the Secretary for approval within 6 months of Modification 8, unless otherwise agreed by the Secretary;</li> <li>(b) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this consent;</li> <li>(c) include measures to manage and monitor the avoidance of impacts on the heritage values on the buildings on Lot 10 DP977931;</li> <li>(d) include measures to manage flyrock;</li> <li>(e) include a monitoring program for evaluating and reporting on compliance with blasting criteria in this consent;</li> <li>(f) included community notification procedures for the blasting schedule, in particular to nearby residences; and</li> <li>(g) include a protocol for investigating and responding to complaints.</li> </ul> <p>The Applicant must implement the Approved Blast Management Plan as approved from time to time by the Secretary.</p> <p><i>Note: prior to the approval of the Blast Management Plan revised under Modification 8, the most recent approved version must continue to have full force and effect and must be implemented.</i></p>	Blast Management Plan (BMP)	<p><b>Compliant</b></p> <p>A BMP was developed in 2008 and updated once in 2013 and twice in 2016. The current version of the BMP has been approved by DP&amp;E (letter 23/11/16).</p>
<b>Blast Monitoring</b>			
21	The Applicant <b>must</b> monitor the airblast overpressure and peak particle velocity impacts of the development at the permanent monitoring station as approved by the EPA, to the satisfaction of the EPA and Secretary, using the	Confirmed location of the permanent monitoring station. Reviewed monitoring	<p><b>Compliant</b></p> <p>The EPL 77 from 2009 changed condition M7.1 to undertake</p>



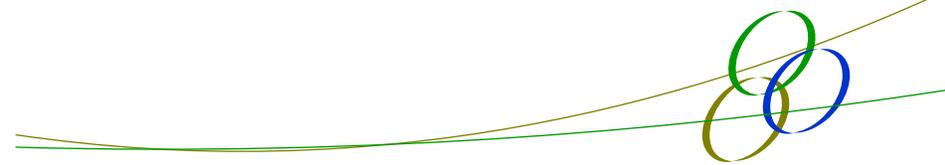
Number	Details	Evidence Sources/Questions	Audit Finding															
	<p>specified units of measure, frequency, sampling method, and location in Table 6.</p> <table border="1" data-bbox="369 435 1224 971"> <thead> <tr> <th>Parameter</th> <th>Unit of Measure</th> <th>Frequency</th> <th>Sampling Method</th> <th>Measurement Location</th> </tr> </thead> <tbody> <tr> <td>Airblast overpressure</td> <td>dB(Lin Peak)</td> <td>During every blast</td> <td>AS2187.2-1993</td> <td>Not less than 3.5m from a building or structure <i>(or otherwise agreed by EPA)</i></td> </tr> <tr> <td>Peak particle velocity</td> <td>mm/s</td> <td>During every blast</td> <td>AS2187.2-1993</td> <td>Not more than 30m from a building or structure <i>(or otherwise agreed by EPA)</i></td> </tr> </tbody> </table> <p><i>Table 6: Airblast overpressure and peak particle velocity monitoring</i></p> <p><i>Standards Australia, 1993, AS2187.2-1993: Explosives - Storage, Transport and Use of Explosives</i></p>	Parameter	Unit of Measure	Frequency	Sampling Method	Measurement Location	Airblast overpressure	dB(Lin Peak)	During every blast	AS2187.2-1993	Not less than 3.5m from a building or structure <i>(or otherwise agreed by EPA)</i>	Peak particle velocity	mm/s	During every blast	AS2187.2-1993	Not more than 30m from a building or structure <i>(or otherwise agreed by EPA)</i>	<p>records against condition.</p>	<p>blast monitoring at the McParland Property.</p> <p>The EPL requires monitoring to be conducted in accordance with AS21287.2-2006 and the condition of consent is AS21287.2-1993.</p> <p>No non-compliances with the EPL regarding blast monitoring have been recorded in the audit period.</p> <p>Monitoring is provided to the EPA via EPL returns, and the Secretary via the Annual Review.</p>
Parameter	Unit of Measure	Frequency	Sampling Method	Measurement Location														
Airblast overpressure	dB(Lin Peak)	During every blast	AS2187.2-1993	Not less than 3.5m from a building or structure <i>(or otherwise agreed by EPA)</i>														
Peak particle velocity	mm/s	During every blast	AS2187.2-1993	Not more than 30m from a building or structure <i>(or otherwise agreed by EPA)</i>														
<b>Air Quality</b>																		
<b>Impact Assessment Criteria</b>																		
22	<p>The Applicant <b>must</b> ensure that the air pollution generated by the development does not cause exceedances of the ambient air quality standards and goals listed in Tables 7, 8, and 9 at any privately-owned land.</p>	<p>Air Quality Monitoring Plan, monitoring results, compliance reporting in Annual Environmental</p>	<p><b>Compliant</b></p>															



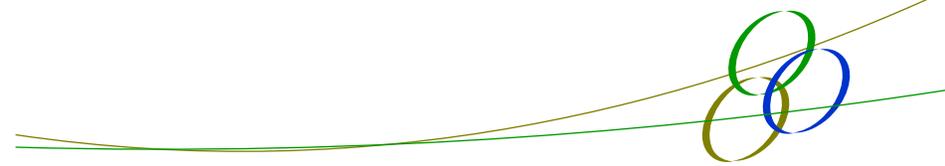
Number	Details	Evidence Sources/Questions	Audit Finding																							
	<table border="1" data-bbox="369 362 1224 574"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>90µg/m<sup>3</sup></td> </tr> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>Annual</td> <td>30µg/m<sup>3</sup></td> </tr> </tbody> </table> <p data-bbox="369 589 1115 613"><i>Table 7: Long Term Impact Assessment Criteria for Particulate Matter</i></p> <table border="1" data-bbox="369 662 1213 794"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>24 hour</td> <td>50µg/m<sup>3</sup></td> </tr> </tbody> </table> <p data-bbox="369 808 1129 833"><i>Table 8: Short Term Impact Assessment Criterion for Particulate Matter</i></p> <table border="1" data-bbox="369 881 1213 1097"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust</th> <th>Maximum total deposited dust</th> </tr> </thead> <tbody> <tr> <td>Dust deposition</td> <td>Annual</td> <td>2 g/m<sup>2</sup>/month</td> <td>4 g/m<sup>2</sup>/month</td> </tr> </tbody> </table> <p data-bbox="369 1112 1073 1136"><i>Table 9: Long Term Impact Assessment Criteria for Deposited Dust</i></p> <p data-bbox="369 1153 1228 1274"><i>Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 2003, AS 3580.10.1-2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.</i></p>	Pollutant	Averaging Period	Criterion	Total suspended particulate (TSP) matter	Annual	90µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	30µg/m <sup>3</sup>	Pollutant	Averaging Period	Criterion	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50µg/m <sup>3</sup>	Pollutant	Averaging period	Maximum increase in deposited dust	Maximum total deposited dust	Dust deposition	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month	<p data-bbox="1251 329 1518 386">Review and mitigation measures.</p>	<p data-bbox="1545 329 1885 418">The relevant criteria are included the Air Quality Monitoring Plan.</p> <p data-bbox="1545 435 1885 686">A number of exceedances have been noted in the monitoring results within the AMER/Annual Reviews. It is noted that dust deposit sources other than the quarry may be contributing to the exceedances.</p> <p data-bbox="1545 703 1885 1149">The intent of this condition is management of ambient air quality on privately owned land, as such a review of the complaints register was undertaken. No complaints have been received since 2014 in relation to dust. Mitigation measures are in place on-site including use of water truck which was observed in operation on site (view Appendix 1(iii) for photographs).</p>
Pollutant	Averaging Period	Criterion																								
Total suspended particulate (TSP) matter	Annual	90µg/m <sup>3</sup>																								
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	30µg/m <sup>3</sup>																								
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Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50µg/m <sup>3</sup>																								
Pollutant	Averaging period	Maximum increase in deposited dust	Maximum total deposited dust																							
Dust deposition	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month																							



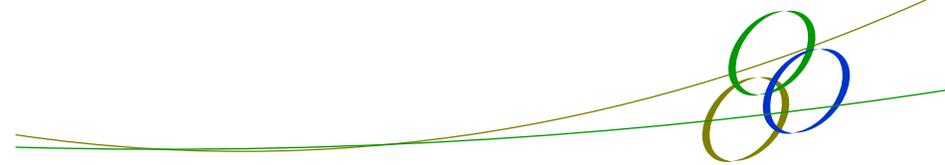
Number	Details	Evidence Sources/Questions	Audit Finding
<b>Management</b>			
23	The Applicant <b>must</b> minimise and/or prevent the emission of dust from the site.	Air Quality Management Plan, inspection of dust mitigation measures during site visit. Check complaints record.	<b>Compliant</b> An Air Quality Management Program was updated and approved by the Secretary in 2016. Mitigation measures are in place on-site including use of water truck which was observed in operation on site (view Appendix 1(iii) for photographs).
24	<p>The applicant <b>must implement all reasonable and feasible measures to stabilise the surface of stockpiles of crusher fines to minimise wind-blown dust emissions, erosion and sedimentation.</b></p> <p><i>Note: Fines are &lt; 4mm in diameter.</i></p>	Inspection of mitigation measures being implemented during site visit.	<b>Compliant</b> Stockpiling of fines is minimised through transfer to Boral Soil and Sand Quarry for manufactured sand production and shipment. Dust, erosion and sedimentation were not observed on stockpiles of crusher fines.
<b>Monitoring</b>			
25	The Applicant <b>must</b> monitor (by sampling and obtaining results by analysis) the concentration of each pollutant in Table 10 to the satisfaction of the EPA and the <b>Secretary</b> , using the specified unit of measure, averaging period, frequency, sampling method and minimum number of locations.	Monitoring results, Air Quality Management Plan, review of monitoring locations, EPL Annual Returns.	<b>Compliant in part</b> Monitoring results were reviewed from Feb 2014 – Jan 2016.  The monitoring programs meet the requirements of



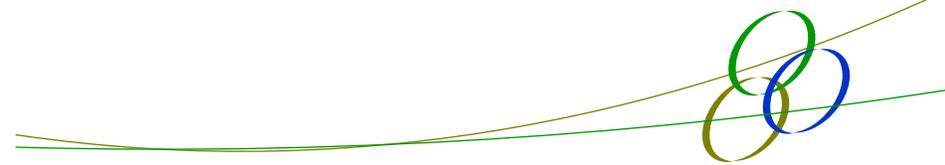
Number	Details						Evidence Sources/Questions	Audit Finding
	Pollutant	Unit of Measure	Averaging Period	Frequency	Sampling Method	Locations		<p>Table 10. Dust deposition is sampled in accordance with the EPA approved method AM-19.</p> <p>Results of the monitoring are provided to the EPA via the EPL returns and the Secretary via the AMER/Annual Review.</p> <p>The EPL returns note in the 2013 – 2014 reporting period one ambient air-quality sample was not recorded. In the 2014 – 2015 reporting period one PM<sub>10</sub> sample was not collected.</p>
Dust deposition	g/m <sup>2</sup> /month	Month, annual	Continuous	AM-15	4			
(PM <sub>10</sub> )	µg/m <sup>3</sup>	24 hour, annual	Continuous	AM-18 (or equivalent)	1			
	<p><i>Table 10: Sampling of Air Pollutants</i></p> <p><i>The Applicant may use an equivalent sampling method to AM-18, with the approval of EPA.</i></p>							
26	<p>Within 3 months of the date of this consent, the Applicant <b>must</b> prepare, and subsequently implement, an Air Quality Monitoring Program for the development, in consultation with the EPA, and to the satisfaction of the <b>Secretary</b>.</p> <p><b>The Applicant must implement the approved monitoring program as approved from time to time by the Secretary.</b></p>						<p>Review of the Air Quality Monitoring Program, compliance with monitoring program requirements, inspection of monitoring locations.</p>	<p><b>Compliant</b></p> <p>The Air Quality Monitoring Program was updated in November 2016. Monitoring is conducted in accordance with the program.</p> <p>Results of the monitoring are provided to the EPA via the EPL returns and the Secretary via the AMER/Annual Review.</p>



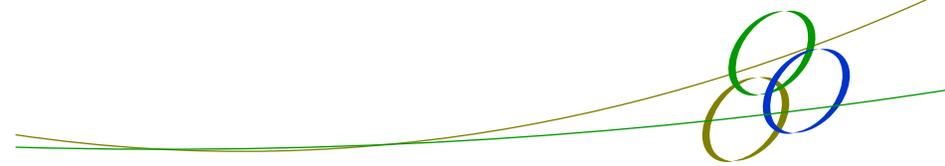
Number	Details	Evidence Sources/Questions	Audit Finding																																			
<b>Meteorology Monitoring</b>																																						
27	<p>The Applicant <b>must</b> establish a permanent meteorological station at a location approved by the EPA, and to the satisfaction of the <b>Secretary</b>, to monitor the parameters specified in Table 11, using the specified units of measure, averaging period, frequency and sampling method.</p> <table border="1" data-bbox="369 516 1224 1149"> <thead> <tr> <th>Parameter</th> <th>Units of measure</th> <th>Averaging Period</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Rainfall</td> <td>mm/hr</td> <td>1 hr</td> <td>Continuous</td> <td>AM-4</td> </tr> <tr> <td>Temperature @ 2m</td> <td>K</td> <td>1 hr</td> <td>Continuous</td> <td>AM-4</td> </tr> <tr> <td>Temperature @ 10m</td> <td>K</td> <td>1 hr</td> <td>Continuous</td> <td>AM-4</td> </tr> <tr> <td>Wind direction @ 10m</td> <td>Compass points</td> <td>1 hr</td> <td>Continuous</td> <td>AM-2</td> </tr> <tr> <td>Wind speed @ 10m</td> <td>m/s</td> <td>1 hr</td> <td>Continuous</td> <td>AM-2</td> </tr> <tr> <td>Siting</td> <td>-</td> <td>-</td> <td>-</td> <td>AM-1</td> </tr> </tbody> </table> <p>Table 11: Meteorological Monitoring NSW EPA, 2001, Approved Methods for the Sampling and Analysis of Air Pollutants in NSW.</p>	Parameter	Units of measure	Averaging Period	Frequency	Sampling Method	Rainfall	mm/hr	1 hr	Continuous	AM-4	Temperature @ 2m	K	1 hr	Continuous	AM-4	Temperature @ 10m	K	1 hr	Continuous	AM-4	Wind direction @ 10m	Compass points	1 hr	Continuous	AM-2	Wind speed @ 10m	m/s	1 hr	Continuous	AM-2	Siting	-	-	-	AM-1	<p>Site inspection of permanent meteorological stations, review of meteorological monitoring results.</p>	<p><b>Compliant</b></p> <p>Meteorological monitoring averaging periods have been modified in M4.1 of the EPL to 15mins for all parameters other than windspeed. A sample of meteorological monitoring results is included as Appendix(iv).</p>
Parameter	Units of measure	Averaging Period	Frequency	Sampling Method																																		
Rainfall	mm/hr	1 hr	Continuous	AM-4																																		
Temperature @ 2m	K	1 hr	Continuous	AM-4																																		
Temperature @ 10m	K	1 hr	Continuous	AM-4																																		
Wind direction @ 10m	Compass points	1 hr	Continuous	AM-2																																		
Wind speed @ 10m	m/s	1 hr	Continuous	AM-2																																		
Siting	-	-	-	AM-1																																		



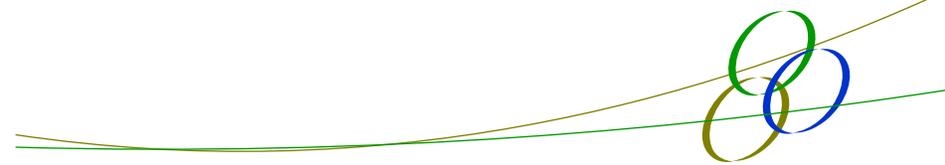
Number	Details	Evidence Sources/Questions	Audit Finding
<b>Surface and Ground Water</b>			
<b>Pollution of Waters</b>			
28	Except as may be expressly provided by an Environment Protection Licence, the Applicant shall comply with section 120 of the <i>Protection of the Environment Operations Act 1997</i> during the carrying out of the development.	Section 120 of the <i>Protection of the Environment Operations Act 1997</i> , L1.1 EPL and EPL Annual Returns.	<b>Compliant</b>
<b>Water Supply</b>			
<b>28A</b>	<p>The applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of quarrying operations to match its available water supply.</p> <p><i>Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the development.</i></p>	Water Management Plan, water licences and permits, dam water levels.	<p><b>Compliant</b></p> <p>A Water Management Plan has been prepared for the project by Arcadis (2016).</p> <p>The project holds the following water licences and permits:</p> <ul style="list-style-type: none"> <li>• Surface water extraction licence WAL25152 to extract 227ML pa from Rocklow Creek;</li> <li>• Water Supply Works approval number 10WA103611; and</li> <li>• DA 470-11-2003 permitting use of water from on-site dams.</li> </ul> <p>The audit site inspection revealed significant surplus water in site dams was</p>



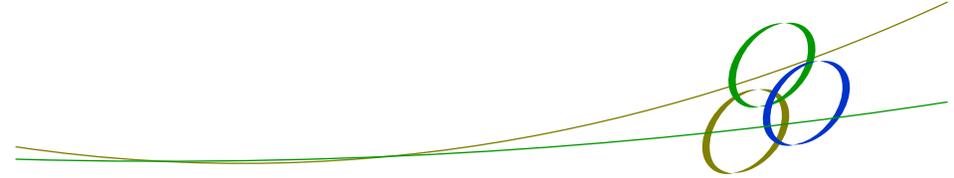
Number	Details	Evidence Sources/Questions	Audit Finding									
			available for processing and dust suppression.									
<b>Water Discharge Limit</b>												
29	<p>Except as may be expressly provided by an Environmental Protection Licence, the Applicant shall ensure that the discharges from any licenced discharge point/s comply with the limit in Table 12:</p> <table border="1" data-bbox="369 558 1215 857"> <thead> <tr> <th data-bbox="369 558 510 691">Pollutant</th> <th data-bbox="514 558 655 691">Units of Measure</th> <th data-bbox="659 558 1215 691">100 Percentile Concentration Limit</th> </tr> </thead> <tbody> <tr> <td data-bbox="369 693 510 774">TSS</td> <td data-bbox="514 693 655 774">mg/L</td> <td data-bbox="659 693 1215 774">50</td> </tr> <tr> <td data-bbox="369 776 510 857">pH</td> <td data-bbox="514 776 655 857">pH</td> <td data-bbox="659 776 1215 857">6.5-8.5</td> </tr> </tbody> </table> <p><i>Table 12: Water Discharge Pollution Limits</i></p>	Pollutant	Units of Measure	100 Percentile Concentration Limit	TSS	mg/L	50	pH	pH	6.5-8.5	Inspection of discharge monitoring points, discharge monitoring data, compliance with Table 12.	<p><b>Compliant in part</b></p> <p>Two uncontrolled discharge events occurred 2015/2016 reporting period. As reported in the AEMR, “these events are not considered true reflections of quarry discharge as they occurred when Rocklow Creek flooded resulting in the creek floodwaters rising up and over the spillway into the dam, which in turn has filled up and spilled over”. Compliance with the over the water discharge limits stipulated in Table 12 is not known for the uncontrolled events.</p>
Pollutant	Units of Measure	100 Percentile Concentration Limit										
TSS	mg/L	50										
pH	pH	6.5-8.5										
<b>Site Water Balance</b>												
30	<p>In each Annual Review, the Applicant shall:</p> <ul style="list-style-type: none"> <li>(a) recalculate the site water balance for the development; and</li> <li>(b) provide information on evaporative losses, dust suppression, dam storage levels and</li> <li>(c) evaluate water take against licensing requirements.</li> </ul>	Annual Review.	<p><b>Compliant in part</b></p> <p>In the 2014, 2015, 2016 AEMR/Annual Review, prior to the insertion of this condition, information on the site water balance was provided in Section 2.4.1. Water demands are presented and it is noted that the “site water balance</p>									



Number	Details	Evidence Sources/Questions	Audit Finding
			<p><i>will be reviewed and updated where necessary upon collection of data from the operation of the new dam configurations and water transfer systems onsite".</i> In the 2016 Annual Review, the installation of meters and level loggers was committed to in the AEMR. The site inspection confirmed installation of water meters and level loggers at middle and lower dam. Boral has committed to reporting on the relevant information as part of the 2017 Annual Review.</p>
<b>Storm Water Management System</b>			
31	<p>The Applicant <b>must</b> ensure that the storm water management system for the development is designed, constructed and operated to capture and treat polluted waters from storm event(s) of up to and including the 5-day, 95th percentile rainfall event.</p>	<p>Site inspection of stormwater management system, Water Management Plan prepared by Arcadis 2016, Operating Principles.</p>	<p><b>Compliant</b>            Water Management Plan prepared and implemented in 2008 by Evans and Peck, and updated in 2016 includes provision for a stormwater management system compliant with Condition 31.            Section 3.2.4.5 includes Operating Principles designed to address Condition 31.</p>



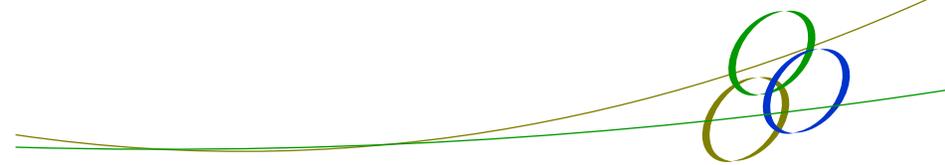
Number	Details	Evidence Sources/Questions	Audit Finding
			<p><b>Opportunity for improvement [DQ3/17]:</b></p> <p>Updated the 'Where addressed in this document' column of Table 2-1 of the Water Management Plan (Arcadis, 2016) to reference the correct section numbers. Some refer to 'Section 0', which is not a component of the report.</p>
32	<p>The Applicant must ensure that the basins in the storm water management system are managed in accordance with the operating principles within the revised Water Management Plan prepared by Evans and Peck, dated April 2008, or any subsequent Water Management Plan approved by the Secretary, to maintain the required storm water storage volume.</p>	<p>Water Management Plan (Arcadis, 2016), Operating Principles (Section 3.2.4.5), basin inspection program, inspection logs, interview of inspection staff.</p>	<p><b>Compliant</b></p> <p>Procedures from Water Management Plan created by Evans and Peck in 2008 have been incorporated into the 2016 Water Management Plan prepared by Arcadis.</p>
<b>Offline Dam</b>			
33	<p>By 18 May 2008, or as otherwise agreed to by the Secretary, the Applicant must:</p> <ul style="list-style-type: none"> <li>(a) modify the existing dam at the site to create a dam with a capacity of at least 61.4ML offline from Rocklow Creek;</li> <li>(b) ensure the discharge and overflow points of the dam do not cause erosion at the point of discharge/overflow;</li> <li>(c) rehabilitate and stabilise the banks of the dam;</li> <li>(d) construct a baffle and macrophyte zone downstream of the dam; and</li> <li>(e) ensure the integrity of the dam would not be compromised by any flooding in Rocklow Creek;</li> </ul>	<p>Site inspection: dam, discharge points, dam bank, rehabilitation/stabilisation, baffle and macrophyte zone, EPA interview, WMP.</p>	<p><b>Compliant in part</b></p> <ul style="list-style-type: none"> <li>(a) Completed. Whole site capacity of 188ML.</li> <li>(b) The uncontrolled discharge events do not appear to have caused erosion to the lower dam.</li> <li>(c) Dam banks are in good repair.</li> </ul>



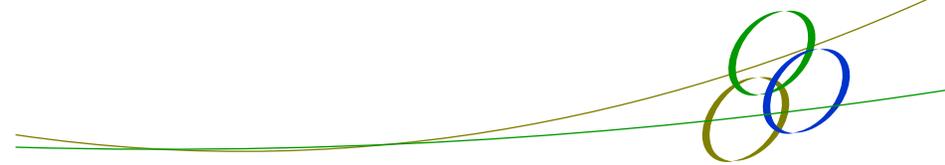
Number	Details	Evidence Sources/Questions	Audit Finding
	to the satisfaction of the EPA and the Secretary.		<p>(d) Compliant. Construction closed out in previous audit.</p> <p>(e) Floodwater from Rocklow Creek entered the dam in the 2015/16 AEMR period. The audit team were unable to access the side of the dam impacted by the flood, therefore were unable to assess whether the integrity of the dam appears to be compromised by the flooding.</p> <p>As per # ESCP14 of the WMP, monthly monitoring of the relevant aspects of this condition is required to be completed.</p> <p><b>Opportunity for improvement [DQ4/17]:</b></p> <p>Management action # WMP07 requires a letter report to be issued to the Secretary confirming the Condition 33(a) – (e) have been met. The letter is required to be appended to the WMP and this has not been completed.</p>



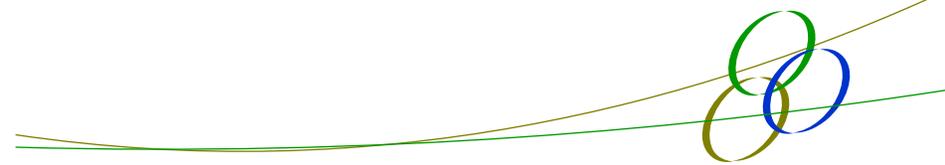
Number	Details	Evidence Sources/Questions	Audit Finding
34	<p>Prior to carrying out any of these works, the Applicant <b>must</b> prepare, and subsequently implement, a Dam Upgrade Plan in consultation with the EPA, and to the satisfaction of the <b>Secretary</b>.</p> <p>This plan must include:</p> <ul style="list-style-type: none"> <li>(a) the detailed design and specifications of the proposed works, which have been certified by a practicing registered engineer;</li> <li>(b) an erosion and sediment control plan for the proposed works, that is consistent with the requirements in the Department of Housing's <i>Managing Urban Stormwater: Soils and Construction</i> manual;</li> <li>(c) a vegetation and rehabilitation plan, setting out how the banks of the dam would be rehabilitated and stabilised, and the baffle and macrophyte zone would be constructed;</li> <li>(d) an acid sulfate soil management plan that is consistent with the <i>NSW Acid Sulfate Soil</i> manual;</li> <li>(e) a construction program for the proposed works; and</li> <li>(f) a program setting out how the modified dam and associated revegetation works would be maintained during the life of the development.</li> </ul> <p>The applicant must implement the approved management plan as approved from time to time by the Secretary.</p>	<p>Dam Upgrade Plan, correspondence from DP&amp;E.</p>	<p><b>Compliant in part</b></p> <ul style="list-style-type: none"> <li>(a) A Dam Upgrade Plan was developed in 2008 by Coffey Engineering.</li> <li>(b) The ESCP was developed in accordance with the condition and included in the Dam Upgrade Plan.</li> <li>(c) A Vegetation Management Plan (VMP) was prepared by Jamberoo Native Nursery (2008).</li> <li>(d) An ASS Plan was not prepared.</li> <li>(e) Covered in VMP.</li> </ul>
35	<p>Within 1 month of completing the construction works in the Dam Upgrade Plan, the Applicant <b>must</b> submit an as-executed report, certified by a practicing registered engineer, to the satisfaction of the <b>EPA</b> and <b>Secretary</b>.</p>	<p>As-executed Report for Dam Upgrade</p>	<p><b>Compliant</b></p> <p>As executed report for Dam Upgrade Plan certified by practicing engineer, Jon Thompson of Coffey Geotechnics Pty Ltd, was approved by the Secretary 20/02/17.</p>



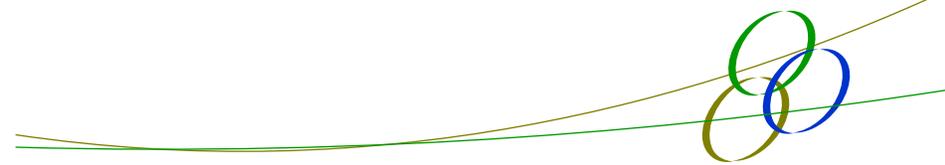
Number	Details	Evidence Sources/Questions	Audit Finding
<b>Flocculent Management</b>			
36	The Applicant <b>must not use flocculants on the site.</b>	No evidence of flocculent storage during site inspection, Water Management Plan, interview question 'Are flocculants being used?'	<b>Compliant</b> No mention of flocculant within Water Management Plan. Interview with Quarry Manager and Maintenance Superintendent indicated flocculants are not being used. No flocculants observed in inspection of storage facilities.
37	<b>Deleted.</b>	<b>N/A</b>	<b>N/A</b>
<b>Other Water Management Works</b>			
38	<p>Within 18 months of the date of this consent, the Applicant <b>must</b> carry out the following works:</p> <p>(a) <i>Workshop and Fuel Storage Area</i></p> <ul style="list-style-type: none"> <li>• desilt drains and culverts upstream of the workshop to limit flooding;</li> <li>• construct a first flush collection basin to capture and store the first 13mm of run-off from the external service bays before it is treated by the oil/water separator; and</li> <li>• bund and roof the drum storage area;</li> </ul> <p>(b) <i>Magazine Area</i></p> <ul style="list-style-type: none"> <li>• reinstate drain through access road to magazines to direct stormwater flows to the main drain;</li> </ul> <p>(c) <i>deleted</i></p> <p>to the satisfaction of EPA and the <b>Secretary</b>.</p>	Site inspection of workshop/fuel storage area and magazine area.	<p><b>Compliant</b></p> <p>(a) No drainage problems observed. The basin has been constructed, as reported in the 2014 IEA. The bunded and roofed drum storage area has been constructed, as reported in the 2014 IEA.</p> <p>(b) Magazine area unused.</p> <p><b>Opportunity for improvement [DQ5/17]:</b></p> <p>Consider requesting DP&amp;E revises or removes this condition if it has been sufficiently closed out.</p>



Number	Details	Evidence Sources/Questions	Audit Finding
<b>Bunding</b>			
39	Impervious bunds must be constructed around all fuel, oil and chemical storage areas and the bund volume must be large enough to contain 110 per cent of the volume held in the largest container. The bund must be designed and installed in accordance with the requirements of the EPA Environment Protection Manual Technical Bulletin <i>Bunding and Spill Management</i> .	Site inspection of fuel, oil and chemical storage areas. EPA Environment Protection Manual Technical Bulletin <i>Bunding and Spill Management</i> .	<b>Compliant</b> Photographs included in Appendix 1(v).
<b>Monitoring</b>			
40	The Applicant <b>must</b> : (a) measure: <ul style="list-style-type: none"> <li>• the volume of water discharged from the site via licenced discharge points;</li> <li>• water use on the site;</li> <li>• water transfers across the site;</li> <li>• dam and water structure storage levels;</li> </ul> (b) monitor the quality of the surface water: <ul style="list-style-type: none"> <li>• discharged from the licence discharge point/s of the development;</li> <li>• upstream and downstream of the development;</li> </ul> (c) monitor flows in Rocklow Creek; and (d) monitor regional groundwater levels and quality; to the satisfaction of the EPA and the <b>Secretary</b> .	AEMR/Annual Review, Monitoring results.	<b>Compliant in part</b> (a)Two uncontrolled discharge events occurred 2015/2016 reporting period. The volume of discharge is unknown. Volume of water used on site supplied in the AMER/Annual Reviews. In the 2015/2016 Annual Review commitment was made to install meters and water loggers on-site to enable compliance with this condition. This has been completed on site (photographs included in Appendix 1(vi)).



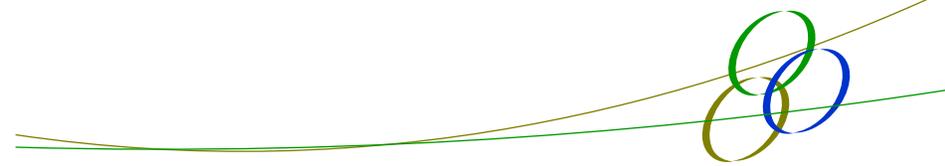
Number	Details	Evidence Sources/Questions	Audit Finding
	<p>Note: On the provision of two years of monitoring data that shows negligible impact on the regional groundwater network, the Secretary may agree to suspend monitoring of regional groundwater levels and/or quality.</p>		<p>(b) Surface water quality is monitored and reported in the AEMR/Annual Review.</p> <p>(c) Commitment to install and maintain real-time water level loggers in Rocklow Creek included in the 2015/2016 Annual Review. This has been completed.</p> <p>(d) Environmental Earth Sciences NSW completed an assessment that concluded ground water levels and quality have remained stable and consistent with natural features over the past 7 years. This was reported in the 2015/2016 Annual Review.</p> <p><b>Opportunity for improvement [DQ6/17]:</b></p> <p>Boral to consider entering into discussions with DP&amp;E regarding definition of 'regional'.</p>
<b>Management</b>			
41	<p>Within 12 months of the date of this consent, the Applicant, <b>must</b> prepare, and subsequently implement, a Site Water Management Plan for the development, in consultation with the <b>DPI - Water</b>, and to the satisfaction of the <b>Secretary</b>. This plan must include:</p>	Water Management Plan	<b>Compliant</b>



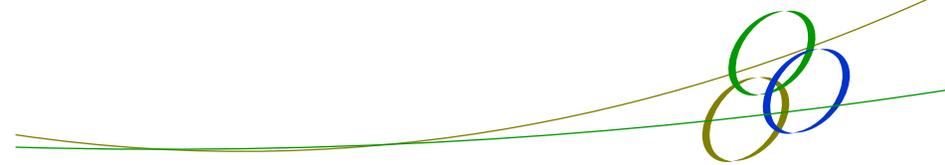
Number	Details	Evidence Sources/Questions	Audit Finding
	(a) the predicted site water balance; (b) an Erosion and Sediment Control Plan; (c) a Surface Water Monitoring Program (d) a Ground Water Monitoring Program; and (e) an Integrated Water Management Strategy.  <b>The Applicant must implement the approved management plan as approved from time to time by the Secretary.</b>		An updated WMP was prepared in November 2016 by Arcadis.  (a) Site Water Balance completed by Evans and Peck in 2008. Details are included in Section 5 of the WMP. (b) Section 6.2 of the WMP provides the details of the ESCP. (c) Section 6.3 of the WMP. (d) Section 6.4 of the WMP. (e) Section 4 of the WMP.
42	The Erosion and Sediment Control Plan <b>must</b> : (a) be consistent with the requirements of the Department of Housing's <i>Managing Urban Stormwater: Soils and Construction</i> manual; (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 the structures over time.	Review of the Erosion and Sediment Control Plan (ESCP), Consistency with <i>Managing Urban Stormwater: Soils and Construction</i> manual (Blue Book).	<b>Compliant</b> (a) The revised WMP has addressed the previous inconsistencies with the Blue Book, being: a site layout map and information on timing, responsibilities etc. for maintenance programs. (b) Section 6.2 of the WMP. (c) Section 6.2 of the WMP. (d) Figure 3.2 of the WMP. (e) Section 6.2 of the WMP.
43	The Surface Water Monitoring Program <b>must</b> include: (a) detailed baseline data on surface water flows and quality in Rocklow Creek; (b) surface water impact assessment criteria;	Review of the Surface Water Monitoring Program.	<b>Compliant</b> Surface Water Quality Monitoring Program is



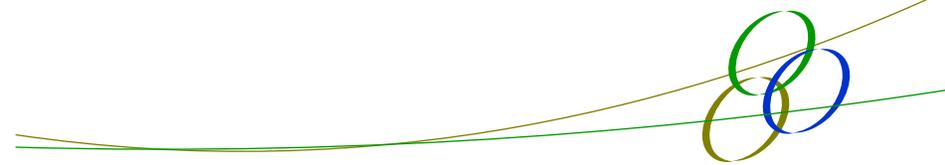
Number	Details	Evidence Sources/Questions	Audit Finding
	<p>(c) a program to monitor surface water flows and quality in Rocklow Creek;</p> <p>(d) a program to monitor bank and bed stability in Rocklow Creek; and</p> <p>(e) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.</p>		<p>included as Section 6.3 of the WMP.</p> <p>(a) Included in Table 6-6.</p> <p>(b) Surface water impact assessment criteria is included in Section 6.3.2.</p> <p>(c) Table 6-6 includes monitoring of flow and quality at locations within Rocklow Creek (GS1, GS2, GS3).</p> <p>(d) Appendix A – Erosion and Sediment Control Checklist includes requirement for inspection of stream bank stability.</p> <p>(e) Appendix A – Erosion and Sediment Control Checklist.</p>
44	<p>The Ground Water Monitoring Program <b>must</b> include:</p> <p>(a) detailed baseline data on ground water levels and quality, based on statistical analysis;</p> <p>(b) ground water impact assessment criteria; and</p> <p>(c) a program to monitor regional ground water levels and quality.</p> <p><b>Note:</b> On the provision of two years of monitoring data that shows negligible impact on the regional groundwater network, the Secretary may agree to suspend monitoring of regional groundwater levels and/or quality.</p>	Review of the Ground Water Monitoring Program	<p><b>Compliant in part</b></p> <p>A Groundwater Monitoring Program is included in Appendix H of the WMP.</p> <p>(a) Section 2.2 provides detail on baseline groundwater quality. No baseline groundwater levels are provided, although the document refers to the installation of pressure transducers in groundwater wells for this purpose. No</p>



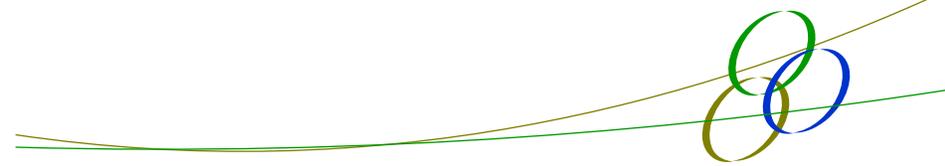
Number	Details	Evidence Sources/Questions	Audit Finding
			<p>statistical analysis is provided as insufficient data had been recorded at the time of writing the WMP.</p> <p>(b) Includes parameters but does not include criteria as insufficient data had been recorded at the time of writing the WMP.</p> <p>(c) The WMP refers to the planned monitoring at groundwater bores to the immediate west of the planned western extension of the hard rock quarry and to the immediate east of the processing plant. No statement is provided as to whether this is the regional monitoring program.</p>
45	<p>The Integrated Water Management Strategy <b>must</b>:</p> <ul style="list-style-type: none"> <li>(a) explore a range of options for a sustainable resource alternative for water supply to the site;</li> <li>(b) identification of all possible and available sources of water;</li> <li>(c) consistency with Government Water Reform initiatives and policies;</li> <li>(d) quality of water to meet usage requirements including any possible effects on product;</li> <li>(e) costs of supply;</li> <li>(f) health and environmental impacts;</li> </ul>	WMP	<p><b>Compliant in part</b></p> <p>A summary of IWMS is included in Section 4 of the WMP.</p> <p>Site Water Management Plan prepared by Matrix Consulting in 2005 was assessed as compliant with this condition as part of the previous IEA.</p> <p>The Integrated Water Management Strategy should</p>



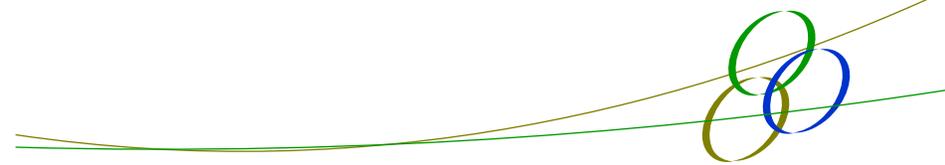
Number	Details	Evidence Sources/Questions	Audit Finding
	(g) legislative requirements; (h) assessment of the feasibility, benefits and costs of options; (i) a process to identify and evaluate preferred options for implementation; and (j) the identification of a timetable for implementation of the selected options.		be updated in accordance with Schedule 5, Condition 4 of the consent.
<b>Flora and Fauna</b>			
<b>Vegetation Offset Strategy</b>			
46	The Applicant <b>must</b> : (a) establish, conserve, and maintain at least: <ul style="list-style-type: none"> <li>• <b>4.6 hectares</b> of <i>Melaleuca armillaris</i> Tall Shrubland; and</li> <li>• <b>8.2 hectares</b> of Blue Gum-White Box Woodland/Forest, on Boral-owned land adjacent to the development; and</li> </ul> (b) conserve, maintain, and enhance the vegetation in the area to the south of the development marked on the map in Appendix 2; (c) <b>conserve, maintain, enhance and establish the vegetation in the area to the south of the development marked on the map in Appendix 3, in accordance with the letter from Boral to the Department dated 22 September 2008 titled <i>Dunmore Quarry – Revised Offset for Quarry Extension</i>; and</b> (d) <b>within 12 months of the date of Modification 8, the Applicant must provide a biodiversity offset strategy outlining the measures to offset 48 Illawarra Zieria individuals and 1.94 ha of native vegetation clearing (including 0.05ha of Illawarra Subtropical Rainforest (EEC)) to the satisfactory of OEH and the Secretary. The offset must demonstrate that the biodiversity values in the general vicinity of the site have been maintained or improved.</b>	Conservation Agreement, FFMP	<b>Not able to determine</b> (a) Table 2 of the FFMP notes these components are included in the 'Compensatory Habitat' conservation area. (b) Table 2 of the FFMP notes these components are included in the 'Remnant Vegetation' conservation area. (c) Conservation Agreement signed in 2011. (d) The Offset Area Threatened Species Plan (EMM 2017) provides the locations and quantities of <i>Zieria granulata</i> individuals and plans for improvement of biodiversity values.
46A	<b>Within 12 months of the date of Modification Application 470-11-2003 Mod 4, the Applicant shall make suitable arrangements in consultation with the OEH to</b>	Conservation Agreement, FFMP	<b>Compliant</b> Conservation Agreement signed in 2011. Item E on Page



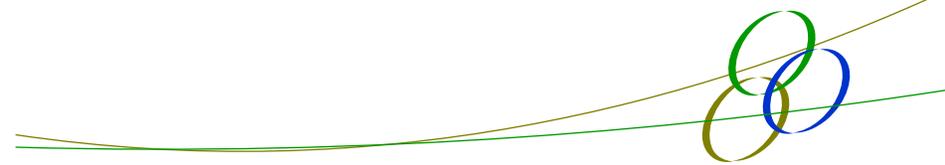
Number	Details	Evidence Sources/Questions	Audit Finding
	provide appropriate long term security for the biodiversity offset referred to in condition 46 (c), to the satisfaction of the Secretary.		2 of the Conservation Agreement notes that the Minister considers this condition to be satisfied by the Conservation Agreement.
46B	Within 12 months of the date of providing the biodiversity offset strategy required under the condition 46(d), the Applicant must make suitable arrangements to provide long term security for this strategy, to the satisfaction of the Secretary.		<b>Compliant</b> The Offset Area Threatened Species Plan (EMM 2017) provides the locations and quantities of <i>Zieria granulata</i> individuals and plans for improvement of biodiversity values.
<b>Flora and Fauna Management Plan</b>			
47	Within 12 months of the date of this consent, the Applicant <b>must</b> prepare, and subsequently implement, a Flora and Fauna Management Plan for the development to the satisfaction of the <b>Secretary</b> . This plan must include: (a) a Vegetation Clearing Protocol; (b) a Compensatory Habitat Management Plan; and (c) a Remnant Vegetation Conservation Plan. <b>The Applicant must implement the approved management plan as approved from time to time by the Secretary.</b>	Independent audit of Flora and Fauna Management Plan (EPS, 2017).	<b>Compliant</b> Refer to Appendix A of the independent audit of Flora and Fauna Management Plan (EPS, 2017).
48	The Vegetation Clearing Protocol <b>must</b> : (a) delineate the areas of remnant vegetation to be cleared; and (b) describe the procedures that would be implemented for: • pre-clearance surveys; • progressive clearing;	Independent audit of Flora and Fauna Management Plan (EPS, 2017).	<b>Compliant</b> Refer to Appendix A of the independent audit of Flora and Fauna Management Plan (EPS, 2017).



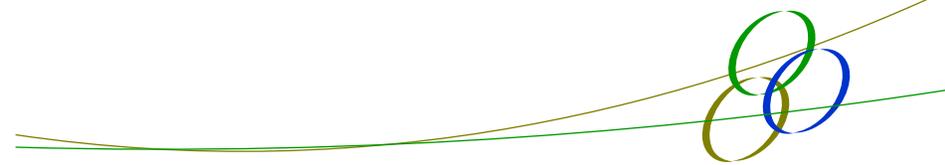
Number	Details	Evidence Sources/Questions	Audit Finding
	<ul style="list-style-type: none"> <li>• fauna management;</li> <li>• conserving and reusing topsoil;</li> <li>• collecting seed from the site;</li> <li>• salvaging and reusing material from the site; and</li> <li>• controlling weeds.</li> </ul>		
49	<p>The Compensatory Habit Management Plan <b>must:</b></p> <p>(a) describe the compensatory habitat proposal for the:</p> <ul style="list-style-type: none"> <li>• <i>Melaleuca armillaris</i> Tall Shrubland; and</li> <li>• Blue Gum-White Box Woodland/Forest;</li> </ul> <p>(b) justify why this area(s) is suitable for the compensatory habitat proposal;</p> <p>(c) establish baseline data for the existing habitat in the proposed compensatory habitat area(s);</p> <p>(d) describe how the compensatory habitat proposal would be implemented;</p> <p>(e) set completion criteria for the compensatory habitat proposal; and</p> <p>(f) describe how the performance of the compensatory habitat management proposal would be monitored over time.</p>	Independent audit of Flora and Fauna Management Plan (EPS, 2017).	<p><b>Compliant in part</b></p> <p>Refer to Appendix A of the independent audit of Flora and Fauna Management Plan (EPS, 2017).</p>
50	<p>The Remnant Vegetation Conservation Plan <b>must:</b></p> <p>(a) describe what measures would be implemented to conserve, maintain and enhance the vegetation in the area to the south of the development marked in the map in Appendix 2;</p> <p>(b) establish baseline data for the existing vegetation in the area; and</p> <p>(c) describe how the performance of the measures described in (a) above would be monitored over time.</p>	Independent audit of Flora and Fauna Management Plan (EPS, 2017).	<p><b>Compliant</b></p> <p>Refer to Appendix A of the independent audit of Flora and Fauna Management Plan (EPS, 2017).</p>
<b>Reporting</b>			



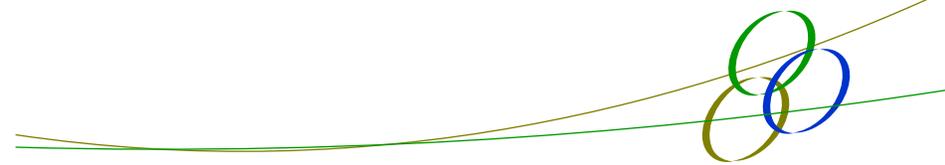
Number	Details	Evidence Sources/Questions	Audit Finding
51	The Applicant <b>must</b> include a progress report on the implementation of the Flora and Fauna Management Plan in the <b>Annual Review</b> .	Independent audit of Flora and Fauna Management Plan (EPS, 2017).	<b>Compliant</b>
52	<p>Within 3 years of the date of this consent, and every 5 years thereafter unless the <b>Secretary</b> directs otherwise, the Applicant <b>must</b> commission, and pay the full cost of an Independent Audit of the Flora and Fauna Management Plan. This audit must:</p> <ul style="list-style-type: none"> <li>(a) be conducted by a suitably qualified, experienced, and independent person whose appointment has been endorsed by the <b>Secretary</b>;</li> <li>(b) assess the performance of the Flora and Fauna Management Plan;</li> <li>(c) review the adequacy of the Flora and Fauna Management Plan; and, if necessary,</li> <li>(d) recommend actions or measures to improve the performance and/ or adequacy of the Flora and Fauna Management Plan.</li> </ul>	Independent audit of Flora and Fauna Management Plan (EPS, 2017).	<b>Compliant in part</b>
<b>Rehabilitation</b>			
<b>Rehabilitation</b>			
53	The Applicant <b>must</b> progressively rehabilitate the site to the satisfaction of the <b>Secretary</b> .	Rehabilitation Management Plan (Arcadis, 2016)	<b>Compliant in part</b> A RMP has been prepared for the site but no evidence of progressive rehabilitation has occurred. The RMP notes as majority of the site is operational, opportunities for rehabilitation are not currently feasible.
<b>Rehabilitation Management Plan</b>			



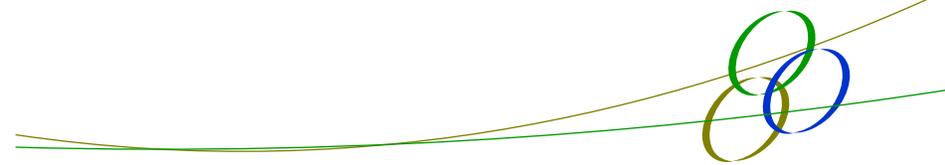
Number	Details	Evidence Sources/Questions	Audit Finding
54	<p>Within 6 months of the date of this consent, the Applicant <b>must</b> prepare, and subsequently implement, a Rehabilitation Management Plan for the site to the satisfaction of the <b>Secretary</b>. This plan must:</p> <ul style="list-style-type: none"> <li>(a) identify the disturbed area at the site;</li> <li>(b) describe in general the short, medium, and long-term measures that would be implemented to rehabilitate the site;</li> <li>(c) describe in detail the measures that would be implemented over the next 5 years to rehabilitate the site; and</li> <li>(d) describe how the performance of these measures would be monitored over time.</li> </ul> <p>The Applicant <b>must</b> implement the approved management plan as approved from time to time by the <b>Secretary</b>.</p>	<p>Rehabilitation Management Plan (Arcadis, 2016)</p>	<p><b>Compliant in part</b></p> <p>A RMP was prepared in 2005 and updated in 2009 and 2016 (Arcadis).</p> <p>The following sections of the current RMP (Arcadis, 2016) address the consent condition:</p> <ul style="list-style-type: none"> <li>(a) Section 3</li> <li>(b) Section 4</li> <li>(c) Section 4 and 5</li> <li>(d) Section 7</li> </ul>
55	<p>Within 5 years of providing the Rehabilitation Management Plan to the <b>Secretary</b>, and every 5 years thereafter, the Applicant <b>must</b> review and update the plan to the satisfaction of the <b>Secretary</b>.</p>	<p>Rehabilitation Management Plan (Arcadis, 2016)</p>	<p><b>Compliant</b></p> <p>Section 7.3 of the RMP (Arcadis, 2016).</p>
<b>Rehabilitation and Conservation Bond</b>			
56	<p>Within 6 months of the date of this consent, the Applicant <b>must</b> lodge a suitable rehabilitation and conservation bond for the development with the <b>Secretary</b>. The sum of the bond <b>must</b> be calculated at:</p> <ul style="list-style-type: none"> <li>(a) \$2.50/ m<sup>2</sup> for the area of disturbance at the development; and</li> <li>(b) \$3.00 /m<sup>2</sup> of the area of the compensatory habitat proposal (see Condition 49 above)</li> </ul> <p>to the satisfaction of the <b>Secretary</b>.</p> <p>Notes:</p>	<p>Bank interview with Environmental Advisor NSW/ACT. guarantee, with Advisor</p>	<p><b>Compliant in part</b></p> <p>Bank guarantee sighted. Not lodged in accordance with the timing in the condition.</p>



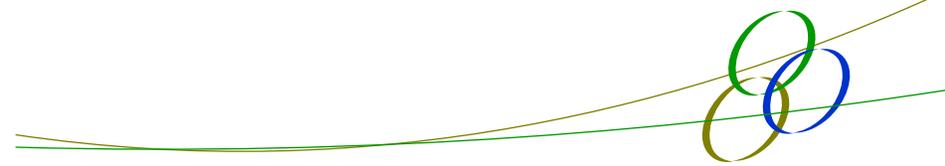
Number	Details	Evidence Sources/Questions	Audit Finding
	<ul style="list-style-type: none"> <li>If the rehabilitation and compensatory habitat proposal is completed to the satisfaction of the <b>Secretary</b>, the <b>Secretary</b> will release the rehabilitation and conservation bond.</li> <li>If the rehabilitation and compensatory habitat proposal is not completed to the satisfaction of the <b>Secretary</b>, the <b>Secretary</b> will call in all or part of the rehabilitation and compensation bond, and arrange for the satisfactory completion of these works.</li> </ul>		
57	<p>Within 3 years of lodging the rehabilitation and conservation bond with the <b>Secretary</b>, and every 5 years thereafter, unless the <b>Secretary</b> directs otherwise, the Applicant <b>must</b> review, and if necessary revise, the sum of the rehabilitation bond to the satisfaction of the <b>Secretary</b>. This review must consider:</p> <p>(a) the effects of inflation;            (b) any changes to the area of disturbance; and            (c) the performance of the compensatory habitat proposal.</p>	Bank guarantee dated 02/03/2017, correspondence with DP&E.	<b>Compliant</b>
<b>Reporting</b>			
58	The Applicant <b>must</b> include a progress report on the Rehabilitation Management Plan in the <b>Annual Review</b> .	AMER 2014 - 2016	<b>Compliant</b>
<b>Traffic and Transport</b>			
<b>North Kiama Bypass</b>			
59	The Applicant must facilitate access to the North Kiama Bypass along Tabbita Road in accordance with the terms set out in the Deed of Agreement between the Applicant and Dunmore Sand and Soil Pty Ltd, dated 29 July 2004.	<b>N/A</b>	<b>N/A</b> Boral now owns Dunmore Sand and Soil Pty Ltd.
<b>Transport Management Plan</b>			
60	The Applicant <b>must</b> prepare and implement a Transport Management Plan for the development to the satisfaction of the <b>Secretary</b> . This plan must:	Transport Management Plan (TMP) (Transport Planning Partnership Pty	<b>Compliant</b>



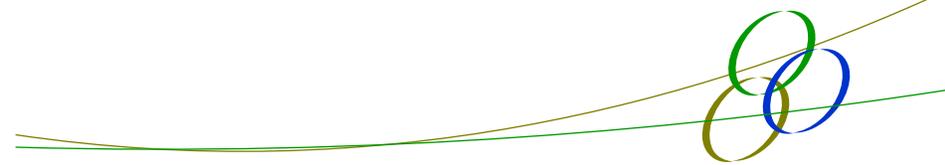
Number	Details	Evidence Sources/Questions	Audit Finding
	<p>(a) be prepared by a suitably qualified traffic consultant, in consultation with RMS and Council, and submitted to the <b>Secretary</b> for approval by 31 May 2014;</p> <p>(b) include a drivers' code of conduct for the development;</p> <p>(c) describe the measures that would be implemented to ensure:</p> <ul style="list-style-type: none"> <li>• all drivers of development-related vehicles comply with the drivers' code of conduct; and</li> <li>• compliance with the relevant conditions of this consent; and</li> </ul> <p>(d) include a program to monitor the effectiveness of the implementation of these measures.</p> <p>The Applicant must implement the approved management plan as approved from time to time by the Secretary.</p>	<p>Ltd, 2016), review complaints and compliments and register/register/reports.</p>	<p>(a) Prepared by The Traffic Transport Planning Partnership Pty Ltd. Section 2 notes details consultation with RMS and Council. Letter approving plan from Secretary dated 23/11/16.</p> <p>(b) Appendix A of the TMP is the Driver's Code of Conduct.</p> <p>(c) Items addressed in TMP.</p> <p>(d) Section 3.4 of the TMP sets out the Monitoring Program.</p>
<b>Cumulative Traffic Impact Study</b>			
60A	<p>The Applicant <b>must</b>, in conjunction with the operators of the Bass Point Quarry and the Albion Park Quarry, cause to be prepared an independent Cumulative Traffic Impact Study. The study must:</p> <p>(a) be undertaken by a suitably qualified traffic consultant, whose appointment has been approved by the <b>Secretary</b>;</p> <p>(b) be commissioned by 30 June 2014, and completed by 31 October 2014, or as otherwise agreed in writing by the <b>Secretary</b>;</p> <p>(c) be co-funded by the operators of the Dunmore, Bass Point and Albion Park quarries, proportionate to the quarries' respective quarry product road transport limits, as approved at 30 June 2014;</p> <p>(d) include a comprehensive assessment of current and future projected cumulative traffic impacts of the three quarries on the classified road network, undertaken in consultation with the RMS; and</p>	<p>Cumulative Traffic Impact Study, correspondence with DP&amp;E</p>	<p><b>Compliant</b></p> <p>(a) Prepared by The Traffic Transport Planning Partnership Pty Ltd.</p> <p>(b) Evidence of extension until submission provided.</p> <p>(c) Noted in Section 1 of the document.</p> <p>(d) Items addressed in Cumulative Impact Assessment.</p> <p>(e) Section 4.4 identifies that the assessment and consultation with RMS concluded "improvements are</p>



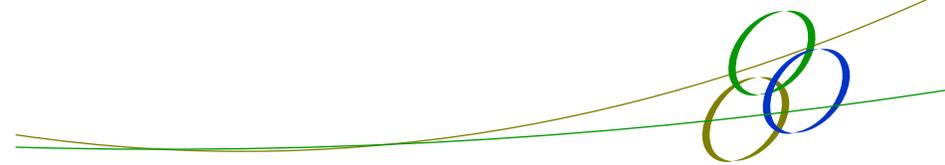
Number	Details	Evidence Sources/Questions	Audit Finding
	(e) identify any reasonable and feasible measures that can be implemented to minimise the traffic and road safety impacts of quarry trucks on Mount Ousley Road, and the likely cost of implementing these measures.		<i>not at this stage considered practical, feasible or warranted</i> for Mount Ousley Road.
60B	The Applicant <b>must</b> , in conjunction with the operators of the Bass Point Quarry and the Albion Park Quarry, prepare and implement a program to implement any reasonable and feasible measures identified in the Cumulative Traffic Impact Study not already undertaken by the Applicant, in an equitable manner with the two other quarry operators, to the satisfaction of the <b>Secretary</b> . The program must be submitted to the <b>Secretary</b> for approval by 28 February 2015, or as otherwise agreed in writing by the <b>Secretary</b> .	Cumulative Traffic Impact Study	<b>Compliant</b> A Driver Code of Conduct has been prepared as per the Traffic Management Plan.
<b>Parking</b>			
61	The Applicant <b>must</b> provide sufficient parking on-site for all quarry-related traffic to the satisfaction of the <b>Secretary</b> .	Site inspection	<b>Compliant</b> Photographs in Appendix 1(vii).
<b>Road Haulage</b>			
62	The Applicant <b>must</b> ensure that all loaded vehicles entering or leaving the site are covered.	Site inspection and with operators/staff.	<b>Compliant</b> Photographs in Appendix 1(viii).
63	The Applicant <b>must</b> ensure all loaded vehicles leaving the site are cleaned of materials that may fall on the road before they are allowed to leave the site.	Site inspection and with operators/staff, signage.	<b>Non-compliant</b> At the time of audit an incident had occurred at Dunmore Sand and Soil which involved the dredge being out-of-operation. This resulted in large amounts of water being



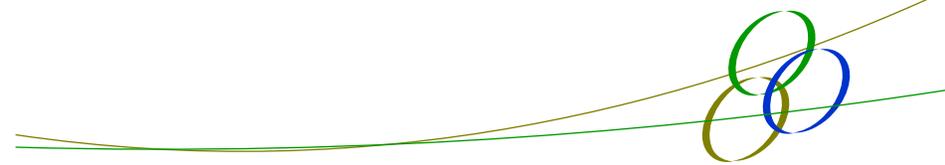
Number	Details	Evidence Sources/Questions	Audit Finding
			<p>tracked over the access road which subsequently created a significant amount of mud. The wheel-wash was in operation; however, it was not sufficient to properly clean trucks prior to them leaving site. A truck operator was observed attempting to manually dislodge mud with a rubber mallet. Photographs are included in Appendix 1(ix).</p> <p>Interviews with staff suggest that under normal operating conditions, this mud-tracking does not occur.</p> <p><b>Opportunity for improvement [DQ7/17]:</b></p> <p>In case of any future unexpected mud generation along the transport route, Boral is to formulate a temporary solution that prevents mud-tracking onto public roads.</p>
<b>Aboriginal Heritage</b>			
64	<p>The Applicant <b>must</b> not destroy Aboriginal site DQ2 before it has obtained approval from the <b>OEH</b> under section 90 of the <i>National Parks &amp; Wildlife Act 1974</i>.</p> <p>Notes:</p>	Closed-out in 2007 audit.	<b>Compliant</b>



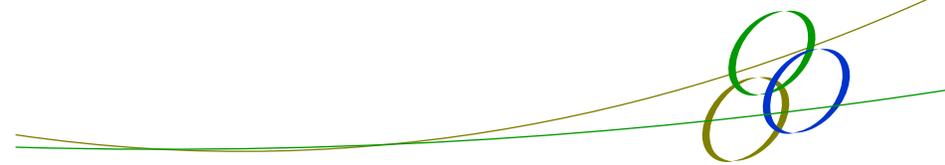
Number	Details	Evidence Sources/Questions	Audit Finding
	<ul style="list-style-type: none"> <li>The <b>OEH</b> has indicated that it will issue this approval subject to conditions.</li> <li>If a salvage component (including “community collection”) is to accompany the application under section 90, the application should include a methodology/research design for the salvage activity, and an application for care and control of any recovered and collected Aboriginal objects by the Aboriginal community involved.</li> </ul>		
65	Within 6 months of the date of this consent, the Applicant <b>must</b> conserve Aboriginal site DQ2004/1 in consultation with the Aboriginal community, and to the satisfaction of the <b>OEH</b> .	Evidence of consultation with Aboriginal community and OEH, site inspection.	<b>Compliant</b> DQ2004/1 is outside the quarry operations area.
<b>Visual Impact</b>			
<b>Visual Amenity</b>			
66	The Applicant <b>must</b> minimise the visual impacts of the development to the satisfaction of the <b>Secretary</b> .	Site inspection to determine visibility from the highway and presence of screening (e.g. vegetation screens).	<b>Compliant</b> Vegetation screen along highway in good repair.
67	Prior to carrying out any development that would be visible from the areas to the south west of the quarry, the Applicant <b>must</b> construct, and subsequently maintain, the proposed visual/noise bund between the Croome Farm extraction area and the Jamberoo Valley to the satisfaction of the <b>Secretary</b> .	Site inspection to assess effectiveness and maintenance of the visual/noise bund between the Croome Farm extraction area and the Jamberoo Valley.	<b>Compliant</b> Bund currently under construction.
67A	The Applicant <b>must</b> :	Aerial photographs, site inspection.	<b>N/A</b>



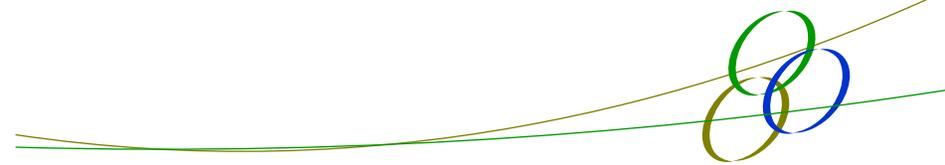
Number	Details	Evidence Sources/Questions	Audit Finding
	<p>(a) construct the blending plant in the location shown on the figure in Appendix 4; and</p> <p>(b) ensure the maximum height of the blending plant is no greater than 15.2m.</p>		Blending plant not yet constructed.
<b>Lighting Emissions</b>			
68	The Applicant <b>must</b> take all practicable measures to prevent and/or minimise any off-site lighting impacts from the development.	Site inspection at night, review of complaints register.	<b>Compliant</b> No lighting impacts have been received in relation to the development. Lighting not visible off-site at night from highway.
69	All external lighting associated with the development <b>must</b> comply with <i>Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting</i> .	Lighting layout, review of lighting technical data.	<b>Not able to determine</b> Lighting information was not known/collected by Boral. No off-site light impacts were observed during inspection at night.
<b>Waste Management</b>			
<b>Waste Minimisation</b>			
70	The Applicant <b>must</b> minimise the amount of waste generated by the development to the satisfaction of the <b>Secretary</b> .	Site inspection, waste monitoring data (classification, volumes, frequency, management), secretary approval, recommendations of previous audit.	<b>Compliant in part</b> Tyres being recycled along with conveyer belts through company 'Tyre Cycle'. Tyres being reused throughout the site. A number of tyres remain stockpiled on site. <b>Opportunity for improvement [DQ8/17]:</b>



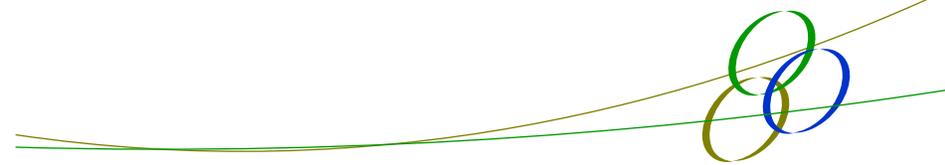
Number	Details	Evidence Sources/Questions	Audit Finding
			EPA should be consulted with regards to tyre storage on-site and storage should align with the RFS Fire Safety Guideline for bulk storage of rubber tyres: <a href="https://www.fire.nsw.gov.au/gallery/files/pdf/guidelines/rubber_tyres.pdf">https://www.fire.nsw.gov.au/gallery/files/pdf/guidelines/rubber_tyres.pdf</a>
<b>Waste Classification</b>			
71	All liquid and non-liquid wastes resulting from activities and processes at the site must be assessed, classified and managed in accordance with the EPA's Environmental Guidelines: <i>Assessment, Classification and Management of Liquid and Non-liquid Wastes (1999)</i> , or any other EPA document superseding this guideline.	AMER's, waste monitoring data, waste reduction actions.	<b>Compliant</b> Waste management and classification discussed in AEMR's. In general, waste on site was being a classified and managed appropriately. There was minor separation issues noted during the site inspection with respect to general, recycling and timber waste associated with the maintenance shed.
<b>Reporting</b>			
72	The Applicant <b>must</b> describe what measures have been implemented to minimise the amount of waste generated by the development in the Annual Review.	AMER's 2014 – 2016.	<b>Compliant in part</b> 2014: 2.3 & 5.5 2015: 2.3 & 5.5 2016: 2.6



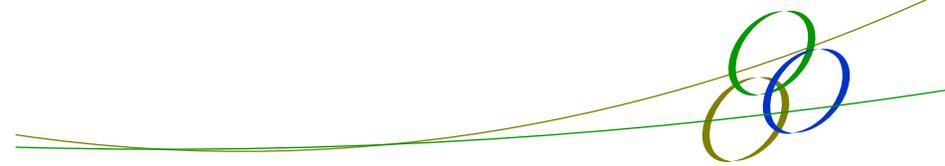
Number	Details	Evidence Sources/Questions	Audit Finding
			<p>Over the past three reporting years the information provided within the AMER's in relation to waste has improved to a standard that is considered compliant with this condition.</p> <p><b>Opportunity for improvement [DQ9/17]:</b></p> <p>As per the recommendations from the previous audit [DQ18/14]: types or weights/volumes of waste generated and recycled could be included in the AMER to allow comparison over time, and measurement of the effectiveness of reduction measures.</p>
<b>Emergency and Hazards Management</b>			
<b>Dangerous Goods</b>			
73	The Applicant <b>must</b> ensure that the storage, handling, and transport of dangerous goods is done in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the Dangerous Goods Code.	Site inspection, review of documentation regarding dangerous goods.	<p><b>Compliant</b></p> <p>Boral continues to complete internal yearly OH&amp;S audits of the site. Dangerous goods were stored appropriately in bunded and/or covered storage areas.</p>



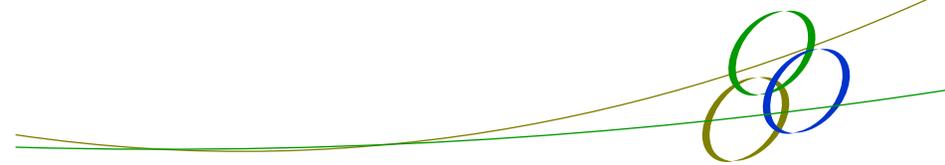
Number	Details	Evidence Sources/Questions	Audit Finding
<b>Safety</b>			
74	The Applicant <b>must</b> secure the development to ensure public safety to the satisfaction of the <b>Secretary</b> .	Incident reporting, site inspection of security fences/gates.	<b>Compliant</b> Site fencing and signage in good repair. One safety breach occurred involving an intoxicated driver entering site trying to escape a police chase.
<b>Emergency Management</b>			
75	<p>Within 6 months of the date of this consent, the Applicant must document, and subsequently implement measures to minimise the environmental impacts of any emergency situations that could arise as a result of the operation of the Dunmore Quarry to the satisfaction of the EPA. This documentation must:</p> <ul style="list-style-type: none"> <li>(a) identify any significant threats to the environment and/ or public health that could arise from activities associated with the operation of the quarry or construction works associated with the production increase. These threats may include excessive rainfall, problems during construction and operation, pump failures, excess flocculation, power or other utility failure, natural disaster, landslip, accidental spills and discharges, train derailment, spillage from trucks, fire etc.;</li> <li>(b) identify any subsequent direct or indirect environmental effects as a result of the threats;</li> <li>(c) identify the pollution that would result due to these threats and impacts on operations and what impact the pollution would have on the health of the community and the environment;</li> <li>(d) develop actions to effectively respond to the disruption of operations so the risk of pollution is minimised;</li> <li>(e) develop a communications strategy for alerting relevant agencies and the potentially affected community in the event of the disruption to operations leading to significant pollution;</li> </ul>	Emergency response documentation, evidence of implementation and awareness via signage and employee interview.	<b>Compliant</b> An initial Emergency Contingency Management Plan was prepared (2005) that met the requirements of this condition and was to the satisfaction of the EPA.  This report has been superseded by a Pollution Incident Response Management Plan (PIRMP) last updated in 2017.



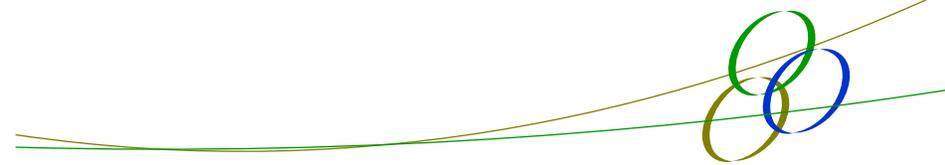
Number	Details	Evidence Sources/Questions	Audit Finding
	(f) ensure that all relevant employees are familiar with the documentation; and (g) when developing this documentation identify any opportunities to integrate with Boral Emergency Plans.		
<b>Bushfire Management</b>			
76	The Applicant <b>must</b> : (a) ensure that the development 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.	Bushfire Management Plan, site inspection to see if the measures in the BMP have been implemented (incl. evidence of fire response equipment)	<b>Compliant</b> Evidence of fire response equipment present. Grazing occurring on the buffer zone pasture.
77	Within 6 months of the date of this consent, the Applicant <b>must</b> prepare a Bushfire Management Plan for the development, to the satisfaction of Council and the Rural Fire Service.	BMP	<b>Compliant</b> BMP implemented since 2005. Document last updated August 2016. Evidence of consultation with Shellharbour Council and RMS contained within document.
<b>Production Data</b>			
78	The Applicant <b>must</b> : (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.	Annual Production Data Reports to the Division of Resources and Energy within the NSW Department of Industry	<b>Compliant</b> 2016 report in standard format sighted and included in the AMER/Annual Reviews.
<b>Schedule 5</b>			



Number	Details	Evidence Sources/Questions	Audit Finding
<b>Environmental Management</b>			
<b>Environmental Management Strategy</b>			
1	<p>If the Secretary requires, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:</p> <ul style="list-style-type: none"> <li>(a) be submitted to the Secretary for approval within 6 months of the Secretary requiring preparation of the strategy by notice to the Applicant;</li> <li>(b) provide the strategic framework for the environmental management of the development;</li> <li>(c) identify the statutory approvals that apply to the development;</li> <li>(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;</li> <li>(e) describe the procedures that would be implemented to:               <ul style="list-style-type: none"> <li>• keep the local community and relevant agencies informed about the operation and environmental performance of the development;</li> <li>• receive, handle, respond to, and record complaints;</li> <li>• resolve any disputes that may arise during the course of the development;</li> <li>• respond to any non-compliance; and</li> <li>• respond to emergencies; and</li> </ul> </li> <li>(f) include:               <ul style="list-style-type: none"> <li>• copies of any strategies, plans and programs approved under the conditions of this consent; and</li> <li>• a clear plan depicting all the monitoring required to be carried out under the conditions of this consent.</li> </ul> </li> </ul> <p>The Applicant must implement any Environmental Management Strategy as approved from time to time by the Secretary.</p>	Correspondence with DP&E, has the Secretary requested an EMS be prepared?	<p><b>Compliant</b></p> <p>Secretary has not requested an EMS be prepared for the project.</p>



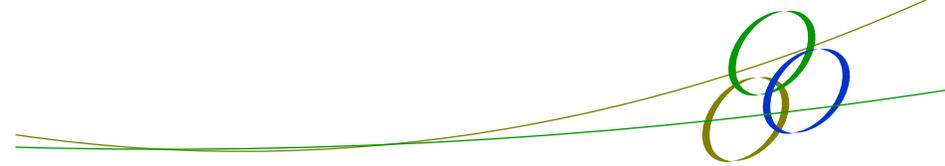
Number	Details	Evidence Sources/Questions	Audit Finding
<b>Management Plan Requirements</b>			
2	<p>The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p> <p>(b) a description 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 development 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 development; 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 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 development 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>Management correspondence DP&amp;E</p> <p>plans, with</p>	<p><b>Compliant</b></p> <p>Management Plans required to be prepared under the consent have been approved by DP&amp;E.</p>



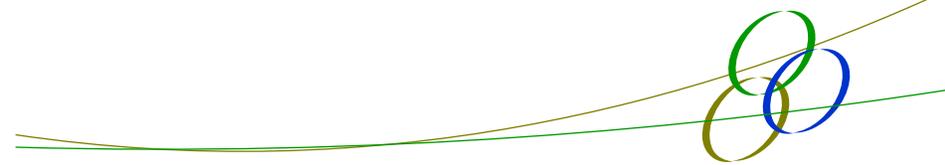
Number	Details	Evidence Sources/Questions	Audit Finding
	<p>(i) a document control table that includes version numbers, dates when the management plan was prepared and reviewed, names and positions of people who prepared and reviewed the management plan, a description of any revisions made and the date of the Secretary's approval.</p> <p><i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>		
<b>Updating &amp; Staging Submission of Strategies, Plans or Programs</b>			
3	<p>To ensure the strategies, plans or programs under this consent are updated on a regular basis, and that they incorporate any appropriate mitigation measures to improve the environmental performance of the development, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis.</p> <p>With the agreement of the Secretary, the Applicant may revise any strategy, plan or program approved under this consent without consulting with all the parties nominated under the applicable conditions of consent.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>• <i>While any strategy, plan or program may be submitted on a staged basis, the Applicant will need to ensure that the existing operations associated with the development are covered by suitable strategies, plans or programs at all times.</i></li> <li>• <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></li> </ul>	Management plans, correspondence with DP&E.	<p><b>Compliant</b></p> <p>Management plans have been revised and submitted to DP&amp;E, where appropriate.</p>
<b>Revision of Strategies, Plans and Programs</b>			
4	Within 3 months of the submission of an:	Management plans, programs and strategies	<b>Non-compliant</b>



Number	Details	Evidence Sources/Questions	Audit Finding
	<p>(a) incident report under condition 7 below;            (b) Annual Review under condition 9 below;            (c) audit report under condition 10 below; and            (d) any modifications to this consent,            the Applicant must review, and if necessary revise, the strategies, plans, and programs required under this consent, to the satisfaction of the Secretary.</p> <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.</i></p>	<p>required under the consent, and review schedule.</p>	<p>While this condition was updated in Modification 8, the requirement for review following every AEMR review remains. The document control tables within the all the plans, strategies and programs required under this consent do not reflect the reviews have occurred. Some plans (e.g. the Flora and Fauna Management Plan) contain information regarding review requirements, but the information is inconsistent with this condition.</p> <p><b>Opportunity for improvement [DQ10/17]:</b></p> <p>Ensure all documents are reviewed in accordance with this condition of consent. Update the relevant management plans to contain information on timing of review.</p>
<b>Adaptive Management</b>			
5	<p>The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 4. Any exceedance of these criteria and/or performance measures</p>	<p>Development Consent, incident register, correspondence with the Secretary.</p>	<p><b>Compliant</b></p>



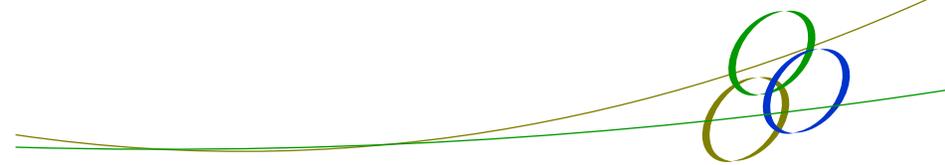
Number	Details	Evidence Sources/Questions	Audit Finding
	<p>constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&amp;A Act or EP&amp;A Regulation.</p> <p>Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:</p> <p>(a) take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur;</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>		
<b>Community Consultative Committee</b>			
6	<p>The Applicant must operate a Community Consultative Committee (CCC) for the development, to the satisfaction of the Secretary. This CCC must be operated in general accordance with the <i>Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects</i> (Department of Planning, 2007, or its latest version).</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li><i>The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.</i></li> <li><i>In accordance with the guideline, the committee should be comprised of an independent chair and appropriate representation from the Applicant, Council, and the local community.</i></li> <li><i>The requirement for this CCC may be fulfilled by a regional CCC for any two or more of Boral's quarrying operations in the South Coast area.</i></li> </ul>	CCC meeting minutes and guidelines, interview with Environment	<p><b>Compliant</b></p> <p>CCC minutes sighted. CCC is run in accordance with the guidelines.</p>



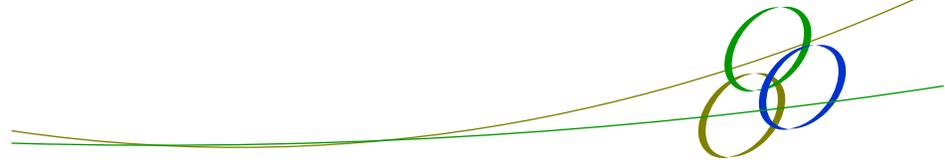
Number	Details	Evidence Sources/Questions	Audit Finding
<b>Reporting</b>			
<b>Incident Reporting</b>			
7	The Applicant must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	Incident register, correspondence with the Secretary.	<b>Compliant</b> No incidents have occurred.
<b>Regular Reporting</b>			
8	The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.	Project website.	<b>Compliant</b> The website includes copies of the latest Independent Audit, the AEMR 2011 – 2016, the latest noise monitoring data, and a note that other documentation can be provided on request.
<b>Annual Review</b>			
9	By the end of September each year, or other timing as may be agreed by the Secretary, the Applicant must submit a report to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must:  (a) describe the development (including rehabilitation) that was carried out in the previous financial year, and the development that is proposed to be carried out over the current financial year;  (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous financial year, which includes a comparison of these results against the: <ul style="list-style-type: none"><li>• relevant statutory requirements, limits or performance measures/criteria;</li></ul>		<b>Compliant in part</b> Documentation was not delivered in accordance with the conditioned timing. <b>2014:</b> September 2015 (a) Section 2, Section 2.6 and Section 5 (b) Section 3 (c) Section 4 (d) Section 3 (e) Section 3



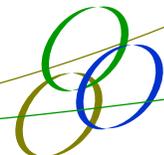
Number	Details	Evidence Sources/Questions	Audit Finding
	<ul style="list-style-type: none"> <li>• requirements of any plan or program required under this consent;</li> <li>• monitoring results of previous years; and</li> <li>• relevant predictions in the documents listed in condition 2 of Schedule 3;</li> </ul> <p>(c) identify any non-compliance over the last financial 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 development;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measures will be implemented over the current financial year to improve the environmental performance of the development.</p> <p>The Applicant must ensure that copies of the Annual Review are submitted to Council and are available to the Community Consultative Committee (see condition 6 of Schedule 5) and any interested person upon request.</p>		<p>(f) Section 5</p> <p><b>2015:</b> October 2015</p> <p>(a) Section 2, Section 2.6 and Section 5</p> <p>(b) Section 3</p> <p>(c) Section 4</p> <p>(d) Section 3</p> <p>(e) Section 3</p> <p>(f) Section 5</p> <p><b>2016:</b> November 2016</p> <p>(a) Section 2, Section 2.5</p> <p>(b) Section 4</p> <p>(c) Section 5</p> <p>(d) Section 4</p> <p>(e) Section 4</p> <p>(f) Section 2</p>
<b>Independent Environmental Audit</b>			
10	<p>Prior to 1 April 2017, and every three years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. 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 development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licences (including any assessment, plan or program required under these approvals);</p>	<p>Independent Environmental Audit 2017 (EPS), Independent Environmental Audit 2014 (Hyder)</p>	<p><b>Compliant</b></p>



Number	Details	Evidence Sources/Questions	Audit Finding
	<p>(d) review the adequacy of any approved strategies, plans or programs required under the abovementioned approvals;</p> <p>(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, 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>		
11	<p>Within 12 weeks of commencing this audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report.</p>	<p>Response to recommendations of previous audit, correspondence with DP&amp;E.</p>	<p><b>Non-compliant</b></p> <p>The previous response to recommendations was submitted in 2017, three years after the submission of the previous audit.</p>
<p><b>Access to Information</b></p>			
12	<p>By 31 December 2016, unless otherwise agreed by the Secretary, the Applicant must:</p> <p>(a) make the following information publicly available on its website:</p> <ul style="list-style-type: none"> <li>• the documents listed in condition 2 of Schedule 3;</li> <li>• current statutory approvals for the development;</li> <li>• approved strategies, plans or programs required under the conditions of this consent;</li> <li>• a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;</li> <li>• a complaints register, updated quarterly;</li> </ul>	<p>Boral Dunmore website accessed at: <a href="http://www.boral.com.au/article/dunmore Quarry_planning_approval.s.asp">http://www.boral.com.au/article/dunmore Quarry_planning_approval.s.asp</a></p>	<p><b>Compliant in part</b></p> <p>(a) Not all the approved plans, programs and strategies are available (e.g. the Water Management Plan, Transport Management Plan and Bushfire Management Plans are missing). Monitoring results are included in the AEMRs, the complaints register, and the IEA are all available.</p>



Number	Details	Evidence Sources/Questions	Audit Finding
	<ul style="list-style-type: none"><li>• the Annual Reviews (over the last 5 years);</li><li>• any independent environmental audit, and the Applicant's response to the recommendations in any audit;</li><li>• any other matter required by the Secretary; and</li></ul> <p>(b) keep this information up-to-date, to the satisfaction of the Secretary.</p>		<p>(b) The development consent on the website is not the current approval (i.e. it is Modification 7, not Modification 8 consolidated consent).</p>



## 5 COMPLIANCE WITH THE ENVIRONMENT PROTECTION LICENCE

This section assesses compliance against the relevant requirements of the Environmental Protection Licence (EPL) 77. Information about the EPL was sourced from the NSW Environmental Protection Authority (EPA) website located at the following link: <http://www.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=77&id=77&option=licence&searchrange=licence&range=POEOaccessed28June2014>. The site was accessed 24 May 2017.

The current licence is attached as Appendix 3.

For the purpose of the EPL audit, a review was conducted of three (3) annual return periods: August 2013/2014 – August 2015/16. The 2014 IEA reviewed the prior EPL returns.

### 5.1 Summary of Findings

Non-compliances in the periods August 2013/2014 and August 2015/16 are presented in Table 5-1. All non-compliances have related to licence condition M2.2. One of the non-compliances resulted in the issue of an EPA Formal Warning, but none resulted in the issue of a Penalty Notice. All non-compliances relate to deficiencies in monitoring and reporting, rather than exceedances of limits. However, it should be noted that in the absence of monitoring, potential exceedances may not have been detected.

In all instances, Boral has taken appropriate action to mitigate non-compliance issues, as requested by the EPA.

**Table 5-1: Non-compliances associated with EPL annual returns.**

Annual Return Start Date	Annual Return End Date	Licence Condition #	Details of Non-compliance and Response	EPA Actions	Number of exceedances
August 2013	August 2014	<b>M2.2</b>	One ambient air sample not collected due to operator error. Licensee has implemented corrective actions. EPA issued licensee a Formal Warning.	EPA has written to licensee regarding non-compliance and relevant action.	1
August 2014	August 2015	<b>M2.2</b>	One PM10 sample not collected; One water discharge sample collected late due to flooding and safety issues. EPA wrote to licensee and varied the licence.	S.58 notice issued to change/amend licence conditions(s).	2



## 6 ADEQUACY OF STRATEGIES, PLANS AND PROGRAMS

This section reviews the adequacy of the projects strategies, plans and programs and provides recommendations for measures or actions to improve the documents, where applicable.

### 6.1 Criteria for Assessing Adequacy

Consistent with the previous audit, the adequacy of strategies, plans and programs have been assessed in accordance with the following criteria:

- **Compliance with review/revision requirements:** understand if documents are maintained as current and effective.
- **Compliance with conditions of consent:** ensure documents are consistent with the conditions of consent.
- **Clear objectives, defined actions and performance criteria:** determine whether the document is structured in a manner that clearly communicates the objectives, actions and performance criteria.
- **Align with best practice and/or relevant guidelines.**
- **Implementation and monitoring:** determine if the document outlays implementation processes and monitoring requirements.
- **Assigned responsibilities:** identify whether clear responsibilities and accountabilities have been assigned.
- **Integration:** as many environmental aspects and impacts are interrelated, it is crucial documents are linked to enable holistic environmental site management.

### 6.2 Document Review and Revision

The consent condition regarding review and revision of plans was updated in Modification 8. The revised condition (Schedule 5, Condition 4) reads:

*4. Within 3 months of the submission of an:*

- (a) incident report under condition 7 below;*
- (b) Annual review under condition 9 below;*
- (c) audit report under condition 10 below; and*
- (d) any modifications to this consent,*

*the Applicant must review, and if necessary revise, the strategies, plans and programs required under this consent, to the satisfaction of the Secretary.*



*Note: This is to ensure the strategies, plans and programs are updated on a regular basis and incorporate and recommended measures to improve the environmental performance of the development.*

There is insufficient evidence to suggest the following plans have been reviewed, and where applicable updated, in response in accordance with the current requirements:

- Bushfire Management Plan; and
- Noise Monitoring Program.

All plans should be reviewed, and where applicable updated, following the finalisation of this audit report.

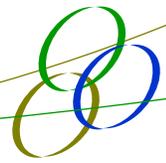
## 6.3 Adequacy Review

### 6.3.1 Blast Management Plan

#### Assessment Against Consent Requirements

**Table 6-1: Assessment of Blast Management Against Consent Requirements**

Condition	Assessment
<b>Schedule 4, Condition 20</b>	
The Applicant must prepare a Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:	<b>Compliant</b> Blast Management Plan (Boral, 2016)
(a) be submitted to the Secretary for approval within 6 months of Modification 8, unless otherwise agreed by the Secretary;	<b>Compliant</b> 23/11/16 letter from DP&E
(b) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this consent;	<b>Compliant</b> Section 1.2
(c) include measures to manage and monitor the avoidance of impacts on the heritage values on the buildings on Lot 10 DP977931;	<b>Compliant</b> Section 3.2
(d) include measures to manage flyrock;	<b>Compliant</b> Document as a whole.
(e) include a monitoring program for evaluating and reporting on compliance with the blasting criteria in this consent;	<b>Compliant</b> Section 6
(f) include community notification procedures for the blasting schedule, in particular to nearby residences; and	<b>Compliant</b> Section 4.3
(g) include a protocol for investigating and responding to complaints.	<b>Compliant</b> Section 8



## Assessment Against Other Criteria

The findings of assessment against other adequacy review criteria are discussed below:

- **Clear objectives, defined actions and performance criteria:** Whilst the objectives are not stated, actions and performance criteria are defined.
- **Align with best practice and/or relevant guidelines:** No mention of the Australian and New Zealand Environment Council's 'Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration' (1990) is made in the document.
- **Implementation and monitoring:** Implementation and monitoring actions are clearly defined.
- **Assigned responsibilities:** Responsibilities are clearly defined in the document.
- **Integration:** Integration with other plans is not mentioned within the plan.

## Assessment of Adequacy

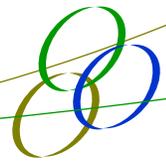
This plan is adequate for its purpose.

It is recommended that the next revision of this plan contains more specific information about management of flyrock in the body text and reference to best practice/relevant guidelines.

### 6.3.2 Water Management

This section includes a review of the following strategies, plans and programs relevant to water management:

- Dam Upgrade Plan;
- Site Water Management Plan;
- Erosion and Sediment Control Plan;
- Surface Water Monitoring Program;
- Ground Water Monitoring Program;
- Integrated Water Management Strategy.



## Dam Upgrade Plan

### Assessment Against Consent Requirements

Table 6-2: Assessment of Dam Upgrade Plan Against Consent Requirements

Condition	Assessment
<b>Schedule 4, Condition 34</b>	
Prior to carrying out any of these works, the Applicant must prepare a Dam Upgrade Plan in consultation with the EPA, and to the satisfaction of the Secretary. This plan must include:	<b>Compliant</b> Dam Upgrade Plan (Coffey, 2008)
(a) the detailed design and specifications of the proposed works, which have been certified by a practicing registered engineer;	<b>Compliant</b>
(b) an erosion and sediment control plan for the proposed works, that is consistent with the requirements in the Department of Housing's Managing Urban Stormwater: Soils and Construction manual;	<b>Compliant</b> ESCP was developed in accordance with the condition and included in the Dam Upgrade Plan.
(c) a vegetation and rehabilitation plan, setting out how the banks of the dam would be rehabilitated and stabilised, and the baffle and macrophyte zone would be constructed;	<b>Compliant</b> A Vegetation Management Plan (VMP) was prepared by Jamberoo Native Nursery (2008).
(d) an acid sulfate soil management plan that is consistent with the <i>NSW Acid Sulfate Soil</i> manual;	<b>Non-compliant</b> EPS questions the likelihood of the presence of potential or actual acid sulphate soils on the site and refers to the current OEH mapping which shows its predicted presence to be limited to the alluviums to the east and south of the site.
(e) a construction program for the proposed works; and	<b>Compliant</b> Section 3.3
(f) a program setting out how the modified dam and associated revegetation works would be maintained during the life of the development.	<b>Compliant</b> VMP (Jamberoo Native Nursery, 2008)

### Assessment Against Other Criteria

The findings of assessment against other adequacy review criteria are discussed below:

- **Clear objectives, defined actions and performance criteria:** N/A
- **Align with best practice and/or relevant guidelines:** No reference to the *NSW Acid Sulfate Soil* manual.



- **Implementation and monitoring:** N/A
- **Assigned responsibilities:** N/A
- **Integration:** N/A

### Assessment of Adequacy

This plan is adequate for its purpose. The plan and as-executed report have both been approved by the Secretary.

### Site Water Management Plan

### Assessment Against Consent Requirements

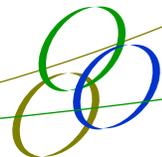
Table 6-3: Assessment of Site Water Management Plan Against Consent Requirements

Condition	Assessment
<b>Schedule 4, Condition 41</b>	
Within 12 months of the date of this consent, the Applicant must prepare a Site Water Management Plan for the development, in consultation with the DPI - Water, and to the satisfaction of the Secretary. This plan must include:	<b>Compliant</b> Water Management Plan (WMP) (Arcadis, 2016)
(a) the predicted site water balance plan;	<b>Compliant</b> Site Water Balance (Evans and Peck, 2008)
(b) an Erosion and Sediment Control Plan;	<b>Compliant</b> Section 6.2
(c) a Surface Water Monitoring Program;	<b>Compliant</b> Section 6.3
(d) a Ground Water Monitoring Program; and	<b>Compliant</b> Section 6.4
(e) an Integrated Water Management Strategy.	<b>Compliant</b> Section 4

### Assessment Against Other Criteria

The findings of assessment against other adequacy review criteria are discussed below:

- **Clear objectives, defined actions and performance criteria:** Objectives, defined actions and performance criteria are clearly defined.
- **Align with best practice and/or relevant guidelines:** Alignment with relevant guidelines clearly demonstrated.



- **Implementation and monitoring:** Clearly outlines plan of management and actions in Section 6, and monitoring, reporting and review requirements in Section 7.
- **Assigned responsibilities:** Responsibilities are assigned against the management actions.
- **Integration:** Section 2.5 describes the integration with other plans.

### Assessment of Adequacy

This plan is adequate for its purpose.

### Erosion and Sediment Control Plan

### Assessment Against Consent Requirements

Table 6-4: Assessment of Erosion and Sediment Control Plan Against Consent Requirements

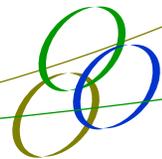
Condition	Assessment
<b>Schedule 4, Condition 42</b>	
The Erosion and Sediment Control Plan must:	<b>Compliant</b> WMP (Arcadis, 2016)
(a) be consistent with the requirements of the Department of Housing's <i>Managing Urban Stormwater: Soils and Construction</i> manual;	<b>Compliant</b>
(b) identify activities that could cause soil erosion and generate sediment;	<b>Compliant</b> Section 6.2
(c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;	<b>Compliant</b> Section 6.2
(d) describe the location, function, and capacity of erosion and sediment control structures; and	<b>Compliant</b> Figure 3.2
(e) describe what measures would be implemented to maintain the structures over time.	<b>Compliant</b> Section 6.2

### Assessment Against Other Criteria

Assessment against other criteria is provided above under Site Water Management Plan.

### Assessment of Adequacy

This plan is adequate for its purpose.



**Surface Water Monitoring Program**

**Assessment Against Consent Requirements**

**Table 6-5: Assessment of Surface Water Monitoring Program Against Consent Requirements**

<b>Condition</b>	<b>Assessment</b>
<b>Schedule 4, Condition 43</b>	
The Surface Water Monitoring Program must include:	<b>Compliant</b> Section 6.3 of the WMP (Arcadis, 2016)
(a) detailed baseline data on surface water flows and quality in Rocklow Creek;	<b>Compliant</b> Table 6.6
(b) surface water impact assessment criteria;	<b>Compliant</b> Section 6.3.2
(c) a program to monitor surface water flows and quality in Rocklow Creek;	<b>Compliant</b> Table 6.6
(d) a program to monitor bank and bed stability in Rocklow Creek; and	<b>Compliant</b> Appendix A
(e) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.	<b>Compliant</b> Appendix A

**Assessment Against Other Criteria**

Assessment against other criteria is provided above under Site Water Management Plan.

**Assessment of Adequacy**

This plan is adequate for its purpose.

**Ground Water Monitoring Program**

**Assessment Against Consent Requirements**

**Table 6-6: Assessment of Ground Water Monitoring Against Consent Requirements**

<b>Condition</b>	<b>Assessment</b>
<b>Schedule 4, Condition 44</b>	
The Ground Water Monitoring Program must include:	<b>Compliant</b> Appendix H of the WMP (Arcadis, 2016)
(a) detailed baseline data on ground water levels and quality, based on statistical analysis;	<b>Non-compliant</b> Section 2.2 provides detail on baseline groundwater quality. Information on baseline groundwater levels is not provided
(b) ground water impact assessment criteria; and	<b>Non-compliant</b> Includes parameters but does not include criteria.



(c) a program to monitor regional ground water levels and quality.	<b>Non-compliant</b> A program to monitor regional groundwater levels and quality is not included.
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**Assessment Against Other Criteria**

Assessment against other criteria is provided above under Site Water Management Plan.

**Assessment of Adequacy**

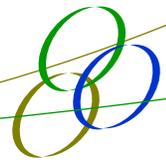
The plan requires updating to align with the conditions of consent.

**Integrated Water Management Strategy**

**Assessment Against Consent Requirements**

Table 6-7: Assessment of Integrated Water Management Strategy Against Consent Requirements

Condition	Assessment
<b>Schedule 4, Condition 45</b>	
The Integrated Water Management Strategy must:	<b>Compliant</b> Section 4 of the WMP (Arcadis, 2016) and Site Water Management Plan (Matrix Consulting, 2005).
(a) explore a range of options for a sustainable resource alternative for water supply to the site;	<b>Compliant</b>
(b) identification of all possible and available sources of water;	<b>Compliant</b>
(c) consistency with Government Water Reform initiatives and policies;	<b>Compliant</b>
(d) quality of water to meet usage requirements including any possible effects on product;	<b>Compliant</b>
(e) costs of supply;	<b>Compliant</b>
(f) health and environmental impacts;	<b>Compliant</b>
(g) legislative requirements;	<b>Compliant</b>
(h) assessment of the feasibility, benefits and costs of options;	<b>Compliant</b>
(i) a process to identify and evaluate preferred options for implementation; and	<b>Compliant</b>
(j) the identification of a timetable for implementation of the selected options.	<b>Compliant</b>



### Assessment Against Other Criteria

Assessment against other criteria is provided above under Site Water Management Plan.

### Assessment of Adequacy

This strategy is adequate for its purpose.

### 6.3.3 Flora and Fauna Management

This section includes a review of the following plans, strategies and programs related for flora and fauna management:

- Flora and Fauna Management Plan;
- Compensatory Habitat Management Plan;
- Remnant Vegetation Conservation Plan;
- Rehabilitation Management Plan; and
- Vegetation Offset Strategy.

#### Flora and Fauna Management Plan

### Assessment Against Consent Requirements

Table 6-8: Assessment of Flora and Fauna Management Plan Against Consent Requirements

Condition	Assessment
<b>Schedule 4, Condition 47</b>	
Within 12 months of the date of this consent, the Applicant must prepare a Flora and Fauna Management Plan for the development to the satisfaction of the Secretary. This plan must include:	<b>Compliant</b>
(a) a Vegetation Clearing Protocol;	<b>Compliant</b>
(b) a Compensatory Habitat Management Plan; and	<b>Compliant</b>
(c) a Remnant Vegetation Conservation Plan.	<b>Compliant</b>

### Assessment Against Other Criteria

The findings of assessment against other adequacy review criteria are discussed below:

- **Clear objectives, defined actions and performance criteria:** Objectives clearly stated in Section 1.3. Section 3 and 4 define actions. Section 5 sets out the review requirements.



- **Align with best practice and/or relevant guidelines:** Section 2.2 documents the guidelines relevant to the plan.
- **Implementation and monitoring:** Includes management actions in Section 4 and monitoring requirements in Section 5.
- **Assigned responsibilities:** Responsibilities are assigned against the management actions.
- **Integration:** Section 2.5 summarises the alignment with other project plans.

### Assessment of Adequacy

The Independent Audit of Dunmore Quarry FFMP (EPS, 2017) notes the current plan is a significant improvement on the 2009 version. It notes:

*The new FFMP 2016, recently approved by the Secretary of the Department of Planning and Environment, clarifies ongoing responsibilities and management actions. This will enable the conservation areas on the site to be more effectively managed on an ongoing basis in the future. It will also provide for the outcomes originally envisaged for these areas when they were set aside for protection and enhancement.*

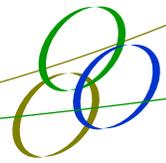
The Independent Audit of the FFMP (EPS, 2017) provides a number of recommendations for consideration.

### Compensatory Habitat Management Plan

#### Assessment Against Consent Requirements

Table 6-9: Assessment of Compensatory Habitat Management Plan Against Consent Requirements

Condition	Assessment
<b>Schedule 4, Condition 49</b>	
The Compensatory Habit Management Plan must:	<b>N/A</b>
(a) describe the compensatory habitat proposal for the: <ul style="list-style-type: none"> <li>• <i>Melaleuca armillaris</i> Tall Shrubland; and</li> <li>• Blue Gum-White Box Woodland/Forest;</li> </ul>	<b>Compliant</b>
(b) justify why this area(s) is suitable for the compensatory habitat proposal;	<b>Compliant</b>
(c) establish baseline data for the existing habitat in the proposed compensatory habitat area(s);	<b>Compliant</b>
(d) describe how the compensatory habitat proposal would be implemented;	<b>Compliant</b>
(e) describe how the compensatory habitat proposal would be implemented;	<b>Non-compliant</b>
(f) describe how the performance of the compensatory habitat management proposal would be monitored over time.	<b>Compliant in part</b>



### **Assessment Against Other Criteria**

Assessment against other criteria is provided above under the Flora and Fauna Management Plan.

### **Assessment of Adequacy**

To be considered adequate, the plan must be updated to address Schedule 4, Condition 49 (e) and (f).

### **Remnant Vegetation Conservation Plan**

### **Assessment Against Consent Requirements**

**Table 6-10: Assessment of Remnant Vegetation Conservation Plan Against Consent Requirements**

<b>Condition</b>	<b>Assessment</b>
<b>Schedule 4, Condition 50</b>	
The Remnant Vegetation Conservation Plan must:	<b>N/A</b>
(a) describe what measures would be implemented to conserve, maintain and enhance the vegetation in the area to the south of the development marked in the map in Appendix 2;	<b>Compliant</b>
(b) establish baseline data for the existing vegetation in the area; and	<b>Compliant</b>
(c) describe how the performance of the measures described in (a) above would be monitored over time.	<b>Compliant</b>

### **Assessment Against Other Criteria**

Assessment against other criteria is provided above under the Flora and Fauna Management Plan.

### **Assessment of Adequacy**

Assessment of adequacy is provided above under the Flora and Fauna Management Plan.



## **Rehabilitation Management Plan**

### **Assessment Against Consent Requirements**

Table 6-11: Assessment of Rehabilitation Management Plan Against Consent Requirements

<b>Condition</b>	<b>Assessment</b>
<b>Schedule 4, Condition 54</b>	
Within 6 months of the date of this consent, the Applicant must prepare a Rehabilitation Management Plan for the site to the satisfaction of the Secretary. This plan must:	<b>Compliant</b> Rehabilitation Management Plan (RMP) (Arcadis, 2016)
(a) identify the disturbed area at the site;	<b>Compliant</b>
(b) describe in general the short, medium, and long-term measures that would be implemented to rehabilitate the site;	<b>Compliant</b>
(c) describe in detail the measures that would be implemented over the next 5 years to rehabilitate the site; and	<b>Compliant</b>
(d) describe how the performance of these measures would be monitored over time.	<b>Compliant</b>

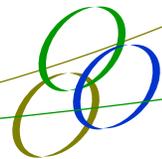
### **Assessment Against Other Criteria**

The findings of assessment against other adequacy review criteria are discussed below:

- **Clear objectives, defined actions and performance criteria:** Objectives are described in Section 1.3. Actions and performance criteria in Section 4.
- **Align with best practice and/or relevant guidelines:** Relevant guidelines listed in Section 2.2.
- **Implementation and monitoring:** Implementation is outlined in Section 4 and monitoring is described in Section 7.
- **Assigned responsibilities:** Responsibilities are assigned against the management actions.
- **Integration:** Alignment with other plans is contained in Section 1.4.

### **Assessment of Adequacy**

This plan is adequate for its purpose.

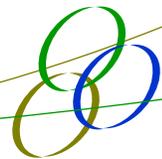


**Vegetation Offset Strategy**

**Assessment Against Consent Requirements**

**Table 6-12: Assessment of Vegetation Offset Strategy Against Consent Requirements**

<b>Condition</b>	<b>Assessment</b>
<b>Schedule 4, Condition 46</b>	
The Applicant must: (a) establish, conserve, and maintain at least: <ul style="list-style-type: none"> <li>• 4.6 hectares of <i>Melaleuca armillaris</i> Tall Shrubland; and</li> <li>• 8.2 hectares of Blue Gum-White Box Woodland/Forest, on Boral-owned land adjacent to the development;</li> </ul>	<b>Compliant</b>
(b) conserve, maintain, and enhance the vegetation in the area to the south of the development marked on the map in Appendix 2;	<b>Compliant</b>
(c) conserve, maintain, enhance and establish the vegetation in the area to the south of the development marked on the map in Appendix 3, in accordance with the letter from Boral to the Department dated 22 September 2008 titled <i>Dunmore Quarry – Revised Offset for Quarry Extension</i> ; and	<b>Compliant</b>
(d) within 12 months of the date of Modification 8, the Applicant must provide a biodiversity offset strategy outlining the measures to offset 48 Illawarra <i>Zieria</i> individuals and 1.94 ha of native vegetation clearing (including 0.05 ha of Illawarra Subtropical Rainforest EEC), to the satisfaction of OEH and the Secretary. The offset must demonstrate that the biodiversity values in the general vicinity of the site have been maintained or improved.	<b>Not able to determine</b> Section 4.1.3 of the FFMP includes information on the offset area which includes populations of <i>Zieria granulate</i> . Locations and numbers not specified. Unable to determine if the values will be maintained or improved.
<b>Schedule 4, Condition 46A</b>	
Within 12 months of the date of Modification Application 470-11-2003 Mod 4, the Applicant must make suitable arrangements in consultation with the OEH to provide appropriate long term security for the biodiversity offset referred to in condition 46 (c), to the satisfaction of the Secretary.	<b>Compliant</b>
<b>Schedule 4, Condition 46B</b>	
Within 12 months of the date of providing the biodiversity offset strategy required under condition 46(d), the Applicant must make suitable arrangements to provide long term security for this strategy, to the satisfaction of the Secretary.	<b>Not able to determine</b> Unable to determine if the conditioned quantities are included in the offset area and if the Conservation Agreement in 2011



	addresses this condition required to be completed in 2016/17.
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### Assessment Against Other Criteria

Assessment against other criteria is provided above under the Flora and Fauna Management Plan.

### Assessment of Adequacy

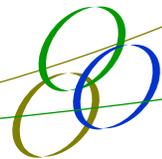
To be considered adequate, the strategy should be updated to clearly specify if the conditioned quantities are included in the offset.

## 6.3.4 Transport Management Plan

### Assessment Against Consent Requirements

Table 6-13: Assessment of Transport Management Plan Against Consent Requirements

Condition	Assessment
<b>Schedule 4, Condition 60</b>	
The Applicant must prepare a Transport Management Plan for the development to the satisfaction of the Secretary. This plan must:	<b>Compliant</b> Transport Management Plan (TMP) (Traffic Transport Planning Partnership, 2016).
(a) be prepared by a suitably qualified traffic consultant, in consultation with RMS and Council, and submitted to the Secretary for approval by 31 May 2014;	<b>Compliant</b>
(b) include a drivers' code of conduct for the development;	<b>Compliant</b>
(c) describe the measures that would be implemented to ensure: <ul style="list-style-type: none"> <li>• all drivers of development-related vehicles comply with the drivers' code of conduct; and</li> <li>• compliance with the relevant conditions of this consent; and</li> </ul>	<b>Compliant</b>
(d) include a program to monitor the effectiveness of the implementation of these measures.	<b>Compliant</b>



## Assessment Against Other Criteria

The findings of assessment against other adequacy review criteria are discussed below:

- **Clear objectives, defined actions and performance criteria:** Objectives included in Section 1.2.
- **Align with best practice and/or relevant guidelines:** No reference is made to relevant guidelines or alignment with best practice.
- **Implementation and monitoring:** Implementation measures included in Section 3. Monitoring information included in Section 3.4.
- **Assigned responsibilities:** Responsibilities are not assigned.
- **Integration:** Integration with other plans is not described.

## Assessment of Adequacy

Section 3.4.6 should be updated to be consistent with the revised requirements under Schedule 5, Condition 4. The plan should also be updated to reference guidelines, assign responsibilities and describe integration with other relevant management plans (e.g. air quality).

### 6.3.5 Bushfire Management Plan

## Assessment Against Consent Requirements

Table 6-14: Assessment of Bushfire Management Plan Against Consent Requirements

Condition	Assessment
<b>Schedule 4, Condition 77</b>	
Within 6 months of the date of this consent, the Applicant must prepare a Bushfire Management Plan for the development, to the satisfaction of Council and the Rural Fire Service.	<b>Compliant</b>

## Assessment Against Other Criteria

The findings of assessment against other adequacy review criteria are discussed below:

- **Clear objectives, defined actions and performance criteria:** Section 2 covers objectives, Section 4 covers control measures, and Section 5.3
- **Align with best practice and/or relevant guideline:** alignment with best practice and relevant guidelines is not noted.
- **Implementation and monitoring:** Section 5 outlines monitoring requirements.



- **Assigned responsibilities:** Section 6 clearly assigns responsibilities but the personnel names are no longer current. Responsibilities are clearly assigned to management actions in Table 1.
- **Integration:** Integration with other plans is not noted.

### Assessment of Adequacy

This plan is generally adequate; however, it is required to be reviewed and updated.

### 6.3.6 Environmental Management Strategy

The revised condition regarding preparation of an Environmental Management Strategy (EMS) (Schedule 5, Condition 1) states:

*If the Secretary requires, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary.*

A draft plan has been prepared and is publicly available via the project website.

A revised draft strategy is currently under preparation. It is considered preparation of a revised draft strategy adequately satisfies this condition. No evidence has been sighted by the audit team that suggests the Secretary requires the EMS to be prepared.

### 6.3.7 Noise Monitoring Program

#### Assessment Against Consent Requirements

Table 6-15: Assessment of Noise Monitoring Program Against Consent Requirements

Condition	Assessment
<b>Schedule 4, Condition 14</b>	
Within 3 months of the date of this consent, the Applicant must prepare a Noise Monitoring Program for the development, in consultation with the EPA, and to the satisfaction of the Secretary. The Applicant must implement the approved monitoring program as approved from time to time by the Secretary.	<b>Non-compliant</b>



## Assessment Against Other Criteria

The findings of assessment against other adequacy review criteria are discussed below:

- **Clear objectives, defined actions and performance criteria:** Section 3.1.2 covers the purpose of the program and Section 3.2 covers the performance criteria.
- **Align with best practice and/or relevant guideline:** relevant guidelines referenced.
- **Implementation and monitoring:** Section 3.2 – 2.6 describe monitoring requirements.
- **Assigned responsibilities:** N/A
- **Integration:** N/A

## Assessment of Adequacy

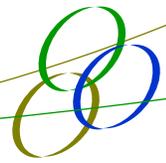
This plan is generally adequate, however, it is required to be reviewed and updated.

### 6.3.8 Air Quality Monitoring Program

#### Assessment Against Consent Requirements

Table 6-16: Assessment of Air Quality Monitoring Program Against Consent Requirements

Condition	Assessment
<b>Schedule 4, Condition 26</b>	
Within 3 months of the date of this consent, the Applicant must prepare an Air Quality Monitoring Program for the development, in consultation with the EPA, and to the satisfaction of the Secretary. The Applicant must implement the approved monitoring program as approved from time to time by the Secretary.	<b>Compliant</b>



### **Assessment Against Other Criteria**

The findings of assessment against other adequacy review criteria are discussed below:

- **Clear objectives, defined actions and performance criteria:** Whilst objectives and defined actions are not defined, performance criteria are included in Section 2.1.
- **Align with best practice and/or relevant guideline:** N/A
- **Implementation and monitoring:** Monitoring covered in Section 3.
- **Assigned responsibilities:** N/A
- **Integration:** N/A

### **Assessment of Adequacy**

The program is adequate for its purposes.



## 7 AUDIT CONCLUSIONS

### 7.1 Compliance Assessment

#### 7.1.1 Conditions of Consent

The findings of assessment against the conditions in Schedule 3 – 5 of the Development Consent is presented below. Of the 96 applicable conditions, 68 (71%) were assessed as compliant, 5 (5%) non-compliant, 19 (20%) compliant in part and 4 (4%) not able to be determined. A number of non-compliances relate to meeting the review and revision requirements, or meeting the requirements for timing of document submission.

#### 7.1.2 Environment Protection Licence

Since 2013/2014 three (3) non-compliances have been recorded. All non-compliances have related to licence condition M2.2. All non-compliances relate to deficiencies in monitoring and reporting, rather than exceedances of limits. However, it should be noted that in the absence of monitoring, potential exceedances may not have been detected.

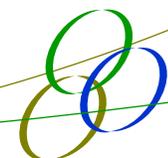
### 7.2 Adequacy of Strategies, Plans and Programs

In general, documentation has been significantly improved since the previous audit. Majority of strategies, plans and programs were reviewed and updated in 2016. The revised documents are considered adequate for the purposes as they meet the conditioned requirements, follow a relatively consistent structure and are operational documents.

Several documents have not been reviewed and revised in accordance with the conditions of consent and are considered to be inadequate. A number of recommendations are made to improve the project documents and to help ensure they remain current.

### 7.3 Environmental Performance

Noting there are a number of matters that require improvement, the overall environmental performance based on the observed condition of the site, the low number of non-compliances and incidents, and low number of complaints, is considered '**satisfactory**'.

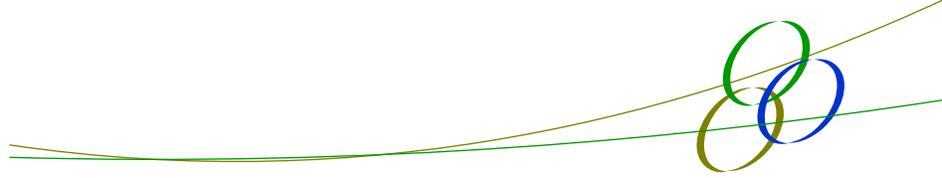


## 7.4 Opportunities for Improvement

The following table summarises the opportunities for improvement identified in this audit.

**Table 7-1: Summary of Opportunities for Improvement**

Reference	Consent Condition/Issue	Recommendation
<b>DQ1/17</b>	Schedule 3, Condition 6 – Quarrying Operations	The AMER/Annual reviews report on the production and transport figures as financial year, not calendar year. It is recommended reporting is updated to be consistent with the condition which clearly nominates calendar year.
<b>DQ2/17</b>	Schedule 4, Condition 14 – Noise Monitoring	Review and revise the Noise Monitoring Program in accordance with the Schedule 5, Condition 4 and DP&E request.
<b>DQ3/17</b>	Schedule 4, Condition 31 – Storm Water Management System	Update the ‘Where addressed in this document’ column of Table 2-1 of the Water Management Plan (Arcadis, 2016) to reference the correct section numbers. Some refer to ‘Section 0’ which is not a component of the report.
<b>DQ4/17</b>	Schedule 4, Condition 33 – Offline Dam	Management action # WMP07 requires a letter report to be issued to the Secretary confirming the Condition 33(a) – (e) have been met. The letter is required to be appended to the WMP and this has not been completed.
<b>DQ5/17</b>	Schedule 4, Condition 38 – Other Water Management Works	Consider requesting DP&E revises or removes this condition if it has been sufficiently closed out.
<b>DQ6/17</b>	Schedule 4, Condition 40 – Monitoring	Boral consider entering into discussions with DP&E regarding definition of ‘regional’.
<b>DQ7/17</b>	Schedule 4, Condition 63 – Road Haulage	In case of any future unexpected mud generation along the transport route, Boral is to formulate a temporary solution that prevents mud-tracking onto public roads.
<b>DQ8/17</b>	Schedule 4, Condition 70 – Waste Minimisation	EPA should be consulted with regards to tyre storage on-site and storage should align with the RFS Fire Safety Guideline for bulk storage of rubber tyres.
<b>DQ9/17</b>	Schedule 4, Condition 72 – Reporting	As per the recommendations from previous audit [DQ18/14]: types or weights/volumes of waste generate and recycles could be included in the Annual Review to allow comparison over time, and measurement of the effectiveness of reduction measures.
<b>DQ10/17</b>	Schedule 5, Condition 4 – Revision of Strategies, Plans and Programs	Ensure all documents are reviewed in accordance with this condition of consent. Update the relevant management plans to contain information on timing of review.



## **Appendix 1**

### *Consolidated Consent*



# Development Consent

## Section 80 of the *Environmental Planning & Assessment Act 1979*

I, the Minister Assisting the Minister for Infrastructure and Planning (Planning Administration), approve the Development Application referred to in Schedule 1, subject to the conditions in Schedules 3 to 5.

These conditions are required 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 development.

This instrument includes changes made by Modification 1 in December 2005 (marked in blue)

This instrument includes changes made by Modification 2 in June 2006 (marked in red)

This instrument includes changes made by Modification 3 in May 2008 (marked in green)

This instrument includes changes made by Modifications 4 and 5 in November 2008 (marked in pink)

Modification 6 (January 2014) marked in purple

Modification 7 (October 2015) marked in maroon

Modification 8 (November 2016) marked in orange

Diane Beamer, MP  
**Minister Assisting the Minister for  
Infrastructure and Planning  
(Planning Administration)**

Sydney

2004

File No. S03/01960

### SCHEDULE 1

<b>Development Application:</b>	DA 470-11-2003.
<b>Applicant:</b>	Boral Resources (NSW) Pty Limited (ABN: 51 000 756 507).
<b>Consent Authority:</b>	Minister Assisting the Minister for Infrastructure and Planning (Planning Administration).
<b>Land:</b>	See Appendix 1.
<b>Proposed Development:</b>	Increase production at the Dunmore Quarry from 1.2 million tonnes per annum (Mtpa) to 2.5 Mtpa, by: <ul style="list-style-type: none"><li>• increasing operating hours;</li><li>• making minor changes to equipment types and configuration, mainly within the crushing and conveying circuit; and</li><li>• increasing rail and road transportation of product.</li></ul>
<b>State Significant Development:</b>	The proposal is classified as State significant development, under section 76A(7) of the <i>Environmental Planning and Assessment Act 1979</i> , because it is an extractive industry where the proposed rate of production exceeds the threshold limits specified in the Ministerial declaration, dated 3 August 1999.
<b>Integrated Development:</b>	The proposal is classified as integrated development, under section 91 of the <i>Environmental Planning and Assessment Act 1979</i> , because it requires additional approvals under the: <ul style="list-style-type: none"><li>• <i>Protection of the Environment Operations Act 1997</i>;</li></ul>

**Designated Development:**

- *National Parks & Wildlife Act 1974;*
- *Rivers and Foreshores Improvement Act 1948.*

The proposal is classified as designated development, under section 77A of the *Environmental Planning & Assessment Act 1979*, because it is for an extractive industry that would “obtain or process for sale, or reuse, more than 30,000 cubic metres of extractive material per year...”. Consequently, it meets the criteria for designated development in schedule 3 of the *Environmental Planning & Assessment Regulation 2000*.

*Note:*

- *To find out when this development consent becomes effective, see Section 83 of the Environmental Planning and Assessment Act 1979 (EP&A Act);*
  - *To find out when this development consent is liable to lapse, see Section 95 of the EP&A Act; and*
  - *To find out about appeal rights, see Section 97 of the EP&A Act.*
-

## SCHEDULE 2 DEFINITIONS

Annual Review	Annual Review, as required under <a href="#">condition 9</a> of <a href="#">schedule 5</a>
Applicant	Boral Resources (NSW) Pty Limited
BCA	Building Code of Australia
CCC	Community Consultative Committee
Council	Shellharbour City Council
DA	Development Application
Day	Day is defined as the period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
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
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPA	Environment Protection Authority
EPL	An Environment Protection Licence applying to the development, issued by the EPA
Evening	Evening is defined as the period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build or carry out
GTA	General Term of Approval
Incident	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 consent</li> </ul>
Land	Land means the whole of a lot in a current plan registered at the Land Titles Office at the date of this development consent
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
Night	Night is defined as the period from 10pm to 6am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
OEH	Office of Environment and Heritage
Privately-owned land	Land not owned by the Applicant or its related companies or where a private agreement does not exist between the Applicant and the land owner
Quarrying operations	Includes the removal of overburden and extraction, processing, handling, storage and transportation of extractive material on the site
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
RMS	Roads and Maritime Services
Secretary	Secretary of the Department, or nominee
SEE	Statement of Environmental Effects
Shoulder	Time interval from 6am to 7am, Monday to Saturday
Site	Land to which the DA applies

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## SCHEDULE 3 ADMINISTRATIVE CONDITIONS

### Obligation to Minimise Harm to the Environment

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

### Terms of Approval

2. The Applicant **must** carry out the development generally in accordance with the:
  - (a) DA 470-11-2003;
  - (b) EIS titled *Environmental Impact Statement for the proposed Dunmore Quarry Production Increase*, Volumes 1 & 2, dated November 2003, and prepared by R. W. Corkery & Company Pty Limited;
  - (c) The letter from Boral Quarries to the Department dated 20 October 2005 about the application to modify Dunmore Quarry development consent DA 470-11-2003, and accompanying plans 4034032\_01 issue E, and 4034032\_EL issue B;
  - (d) modification application MOD 59-4-2006 and letter from Boral Quarries to the Department dated 13 April 2006;
  - (e) Modification Application 470-11-2003 Mod 3, letter to the Department dated 28 March 2008, and accompanying plans GE-DU-2961-02 Rev D; GE-DU-2962-01 Rev B; GE-DU-2963-01 Rev 0; and GE-DU-2964-02 Rev 0;
  - (f) Modification Application 470-11-2003 Mod 4 and accompanying SEE titled *Statement of Environmental Effects for the proposed Dunmore Hard Rock Quarry Extension*, dated May 2008, and letter from Boral Quarries & Recycling to the Department dated 22 September 2008;
  - (g) Modification Application 470-11-2003 Mod 5 and accompanying letter from Boral Quarries & Recycling to the Department dated 16 September 2008 (and accompanying plan GE-DU-2966-01 Rev E);
  - (h) Modification Application 470-11-2003 Mod 6 and accompanying document titled *Environmental Assessment Dunmore Hard Rock Quarry– Modification 6*, prepared by EMGA Mitchell McLennan and dated 19 November 2012;
  - (i) Modification Application 470-11-2003 Mod 7 and accompanying document titled *Proposed Blending Plant Dunmore Hardrock Quarry DA 470-11-2003 – Modification 7, Environmental Assessment*, dated December 2014; and
  - (j) Modification Application 470-11-2003 Mod 8 and accompanying document titled *Dunmore Quarry – Modification 8 Environmental Assessment*, dated August 2016 and accompanying Response to Submissions, dated 22 September 2016.
- 2A. The Applicant must carry out the development in accordance with the conditions of this consent.
3. If there is any inconsistency between the documents in condition 2, the most recent document shall prevail to the extent of the inconsistency. The conditions of this consent shall prevail over the documents in condition 2 to the extent of any inconsistency.
4. The Applicant 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 consent (including any stages of these documents);
  - (b) any reviews, reports or audits commissioned by the Department regarding compliance with this consent; and
  - (c) the implementation of any actions or measures contained in these documents.

### Quarrying Operations

5. The Applicant may carry out quarrying operations on the site until 30 September 2034.

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

6. The Applicant **must** not produce or transport more than 2.5 million tonnes of quarry products a calendar year from the development.

## Transportation

7. The Applicant **must** not transport, or permit to be transported, more than 1.5 million tonnes of quarry products from the site a calendar year by road, except in an emergency with the written approval of the Secretary.
- 7a. The Applicant **must** maximise transport of quarry products from the site by rail, so far as is reasonable and feasible.

## Surrender of Consents

8. *Deleted.*

## Structural Adequacy

9. The Applicant **must** ensure that any new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

### Notes:

- Under Part 4A of the EP&A Act, the Applicant 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

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

## Protection of Public Infrastructure

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

## Operation of Plant and Equipment

12. The Applicant **must** ensure that all plant and equipment at the site, or used in connection with the development, are:
  - (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

**SCHEDULE 4  
SPECIFIC ENVIRONMENTAL CONDITIONS**

**IDENTIFICATION OF BOUNDARIES**

1. Within 6 months of the date of this consent and any subsequent modification involving a change to the approved limits of extraction, the Applicant **must**:
  - (a) engage a registered surveyor to mark out the boundaries of the approved limits 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.

**ACQUISITION UPON REQUEST**

2. Upon receiving a written request for acquisition from the landowner of the land listed in Table 1, the Applicant **must** acquire the land in accordance with conditions 3 and 4 below.

Land Owner(s)	Land Identification
Creagan	Lot 5 DP1001931
Stocker	Lot 1 DP745632
McParland/ Fogarty	Lot 10 DP977931
Kimmorley Property	Lot 1 DP998321

*Table 1: Land Subject to Acquisition on Request*

*Note: Land titled 'McParland/Fogarty' has been acquired and is now quarry-owned.*

3. Within 6 months of receiving a written request from the landowner, the Applicant **must** pay the landowner:
  - (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 development the subject of this DA, having regard to the:
    - existing and permissible use of the land, in accordance with the applicable environmental 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; and
  - (b) the reasonable costs associated with:
    - relocating within the Shellharbour or Kiama local government areas, or to any other local government area determined by the **Secretary**; and
    - obtaining legal and expert advice for determining the acquisition price of the land and the terms upon which it is to be acquired; and
  - (c) reasonable compensation for any disturbance caused by the land acquisition process.

However, if within 6 months of receiving this written request, the Applicant 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** shall request the **NSW President of the Australian Property Institute** to appoint a qualified independent valuer to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or the terms upon which the land is to be acquired.

If either party disputes the independent valuer's determination, the independent valuer must refer the matter back to the **Secretary** for resolution.

If the landowner refuses to accept this offer within 6 months of the date of the Applicant's offer, the Applicant's obligations to acquire the land cease, unless otherwise agreed by the **Secretary**.

4. The Applicant **must** bear the costs of any valuation or survey assessment requested by the independent valuer or the **Secretary**, and the costs of determination referred to in Condition 3 above.
5. If the Applicant and landowner agree that only part of the land should be acquired, then the Applicant **must** pay all reasonable costs associated with obtaining Council approval for any plan of subdivision, and registration of the plan at the Office of the Registrar-General.

6. While the land listed in Table 1 is privately-owned land, the Applicant **must** comply with the requirements applying to this land in these conditions of consent.

## NOISE

### Noise Limits

7. <sup>1</sup>The Applicant **must** ensure that the noise generated by the development does not exceed the criteria specified in Table 2.

Receiver Locations	Noise Limits dB(A)					
	LAeq (15minute)				LA1 (1minute)	
	Day	Evening	Night	Shoulder	Night	Shoulder
Location K Stocker Residence	49	44	38	47	48	55
Location O Dunmore Lakes	49	44	38	47	48	55
Location J Creagan Residence	Negotiated Agreement in Place					

Table 2: Noise Impact Assessment Criteria for the Development

#### Notes:

- Receiver locations nominated in Appendix A Figure A2 of the report prepared by Richard Heggie Associates Report No.605/03 Titled Part 1: Noise Assessment – Dunmore Quarry Production Increase.
- The above table may be varied if the Applicant enters into a negotiated agreement with any of the affected residents, or if existing agreements become void.
- Noise from the development is to be measured at the most affected point on or within the residential boundary or at the most affected point within 30m of the dwelling (rural situations) where the dwelling is more than 30m from the boundary, to determine compliance with the  $L_{Aeq(15\text{ minute})}$  noise limits in the above table. Where it can be demonstrated that direct measurement of noise from the development is impractical, the EPA may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors presented in Section 4 of the NSW Industrial Noise Policy **must** also be applied to the measured noise levels where applicable.
- Noise from the development is to be measured at 1m from the dwelling façade to determine compliance with the  $L_{A1(1\text{ minute})}$  noise limits in above table.
- The noise emission limits identified in Table 1 apply under meteorological conditions of:
  - Wind speed up to 3m/s at 10 metres above ground level; or
  - Temperature inversion conditions of up to 3°C/100m and wind speed up to 2m/s at 10 metres above the ground.

### Noise Investigations

8. Deleted.

### Operating Hours

9. The Applicant **must** comply with the operating hours in Table 3:

Activity	Days of the Week	Time
Extraction and Processing	Monday – Saturday	6-00am to 10-00pm
Product Transfer to Stockpiles	Monday - Saturday	6-00am – Midnight
Distribution	Monday – Saturday	24 hrs
	Sunday	See Condition 10, Schedule 4
Maintenance	Monday – Sunday	24 hrs
Construction (including construction of the bund under Modification 8)	Monday – Saturday	7-00am to 6-00pm Monday to Friday 8-00am to 1-00pm Saturday

Table 3: Operating Hours for the Development

<sup>1</sup> Incorporates EPA GTA

10. <sup>2</sup>The Applicant may only distribute quarry products off-site by road on up to 15 Sundays a year, between 8am and 6pm, unless the EPA approves otherwise. This restriction does not apply to distribution by rail, which is allowed 24 hours a day, 7 days a week.

### Oversized Material

11. <sup>3</sup>The Applicant must not process any oversized raw feed material at the development during the shoulder period.

*Note: For the purpose of this condition "oversized raw feed material" is defined as where more than 50% of the shot is over 900mm in diameter.*

### Noise Monitoring

12. Deleted

13. <sup>4</sup>Within 3 months of the date of this consent, and annually thereafter, unless directed otherwise by the Secretary, the Applicant must:

- (a) commission a suitably qualified person to assess whether the development is complying with the noise impact assessment criteria in Table 2, in general accordance with the NSW Industrial Noise Policy and Australian Standard (AS) 1055-1997: "Description and Measurement of Environmental Noise"; and
- (b) provide the results of this assessment to the EPA and Secretary within a month of commissioning the assessment.

14. Within 3 months of the date of this consent, the Applicant must prepare a Noise Monitoring Program for the development, in consultation with the EPA, and to the satisfaction of the Secretary.

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

### Reporting

15. Deleted

## BLASTING AND VIBRATION

### Airblast Overpressure Criteria

16. The Applicant must ensure that the airblast overpressure level from blasting at the development does not exceed the criteria in Table 4 at any residence or sensitive receiver 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%

Table 4: Airblast Overpressure Limits

### Ground Vibration Criteria

17. The Applicant must ensure that the peak particle velocity from blasting at the development 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%

<sup>2</sup> Incorporates EPA GTA

<sup>3</sup> Incorporates EPA GTA

<sup>4</sup> Incorporates EPA GTA

Table 5: Ground Vibration Limits

**Blasting Restrictions**

18. <sup>5</sup>Blasting operations at the site may only take place:
- a) between 9am and 5pm Monday to Saturday inclusive;
  - b) are limited to 2 blasts each day; and
  - c) at such other times as may be approved by EPA.

**Public Notice**

19. During the life of the development, the Applicant must 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 development.

**Blast Management Plan**

20. The Applicant must prepare a Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be submitted to the Secretary for approval within 6 months of Modification 8, unless otherwise agreed by the Secretary;
  - (b) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this consent;
  - (c) include measures to manage and monitor the avoidance of impacts on the heritage values on the buildings on Lot 10 DP977931;
  - (d) include measures to manage flyrock;
  - (e) include a monitoring program for evaluating and reporting on compliance with the blasting criteria in this consent;
  - (f) include community notification procedures for the blasting schedule, in particular to nearby residences; and
  - (g) include a protocol for investigating and responding to complaints.

The Applicant must implement the approved Blast Management Plan as approved from time to time by the Secretary.

*Note: Prior to the approval of the Blast Management Plan revised under Modification 8, the most recent approved version must continue to have full force and effect and must be implemented.*

**Blast Monitoring**

21. <sup>6</sup>The Applicant must monitor the airblast overpressure and peak particle velocity impacts of the development at the permanent monitoring station as approved by the EPA, to the satisfaction of the EPA and Secretary, using the specified units of measure, frequency, sampling method, and location in Table 6.

Parameter	Units of Measure	Frequency	Sampling Method	Measurement Location
Airblast overpressure	dB(Lin Peak)	During every blast	AS2187.2-1993 <sup>1</sup>	Not less than 3.5m from a building or structure (or as otherwise agreed by EPA)
Peak particle velocity	mm/s	During every blast	AS2187.2-1993	Not more than 30m from a building or structure (or as otherwise agreed by EPA)

Table 6: Airblast overpressure and peak particle velocity monitoring

<sup>1</sup> Standards Australia, 1993, AS2187.2-1993: Explosives - Storage, Transport and Use of Explosives

<sup>5</sup> Incorporates EPA GTA

<sup>6</sup> Incorporates EPA GTA

## AIR QUALITY

### Impact Assessment Criteria

22. The Applicant **must** ensure that the air pollution generated by the development does not cause exceedances of the ambient air quality standards and goals listed in Tables 7, 8, and 9 at any privately-owned land.

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

Table 7: Long Term Impact Assessment Criteria for Particulate Matter

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

Table 8: Short Term Impact Assessment Criterion for Particulate Matter

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

Table 9: Long Term Impact Assessment Criteria for Deposited Dust

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 2003, AS 3580.10.1-2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.

### Management

23. <sup>7</sup>The Applicant **must** minimise and/or prevent the emission of dust from the site.
24. The Applicant **must** implement all reasonable and feasible measures to stabilise the surface of stockpiles of crusher fines to minimise wind-blown dust emissions, erosion and sedimentation.

Note: Fines are < 4mm in diameter.

### Monitoring

25. <sup>8</sup>The Applicant **must** monitor (by sampling and obtaining results by analysis) the concentration of each pollutant in Table 10 to the satisfaction of the EPA and the Secretary, using the specified unit of measure, averaging period, frequency, sampling method and minimum number of locations.

Pollutant	Unit of Measure	Averaging Period	Frequency	Sampling Method	Locations
Dust deposition	g/m <sup>2</sup> /month	Month, annual	Continuous	AM-15	4
PM <sub>10</sub>	µg/m <sup>3</sup>	24 hour, annual	Continuous	AM-18 (or equivalent) <sup>1</sup>	1

Table 10: Sampling of Air Pollutants

<sup>1</sup> The Applicant may use an equivalent sampling method to AM-18, with the approval of EPA.

26. Within 3 months of the date of this consent, the Applicant **must** prepare an Air Quality Monitoring Program for the development, in consultation with the EPA, and to the satisfaction of the Secretary.

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

<sup>7</sup> Incorporates EPA GTA

<sup>8</sup> Incorporates EPA GTA

## METEOROLOGICAL MONITORING

27. The Applicant **must** establish a permanent meteorological station at a location approved by the EPA, and to the satisfaction of the Secretary, to monitor the parameters specified in Table 11, using the specified units of measure, averaging period, frequency and sampling method.

Parameter	Units of measure	Averaging period	Frequency	Sampling method <sup>1</sup>
Rainfall	mm/hr	1 hr	Continuous	AM-4
Temperature @ 2 m	K	1 hr	Continuous	AM-4
Temperature @ 10 m	K	1 hr	Continuous	AM-4
Wind direction @ 10 m	Compass points	1 hr	Continuous	AM-2
Wind speed @ 10 m	m/s	1 hr	Continuous	AM-2
Siting	-	-	-	AM-1

Table 11: Meteorological Monitoring

<sup>1</sup> NSW EPA, 2001, *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*.

## SURFACE AND GROUND WATER

### Pollution of Waters

28. Except as may be expressly provided by an Environment Protection Licence, the Applicant **must** comply with section 120 of the *Protection of the Environment Operations Act 1997* during the carrying out of the development.

### Water Supply

- 28A. The Applicant **must** ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of quarrying operations to match its available water supply.

*Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the development.*

### Water Discharge Limit

29. Except as may be expressly provided by an Environmental Protection Licence, the Applicant **must** ensure that the discharges from any licenced discharge point/s comply with the limit in Table 12:

Pollutant	Units of Measure	100 Percentile Concentration Limit
TSS	mg/L	50
pH	pH	6.5 – 8.5

Table 12: Water Discharge Pollution Limits

### Site Water Balance

30. In each Annual Review, the Applicant **must**:
- recalculate the site water balance for the development; and
  - provide information on evaporative losses, dust suppression, dam storage levels and implications of obtaining any water supplies from off-site; and
  - evaluate water take against licensing requirements.

### Storm Water Management System

31. The Applicant **must** ensure that the storm water management system for the development is designed, constructed and operated to capture and treat polluted waters from storm event(s) of up to and including the 5-day, 95th percentile rainfall event.
32. The Applicant **must** ensure that the basins in the storm water management system are managed in accordance with the operating principles within the revised Water Management Plan prepared by Evans and Peck, dated April 2008, or any subsequent Water Management Plan approved by the Secretary, to maintain the required storm water storage volume.

## Offline Dam

33. **By 18 May 2008, or as otherwise agreed to by the Secretary, the Applicant must:**
- (a) modify the existing dam at the site to create a dam with a capacity of at least 61.4ML offline from Rocklow Creek;
  - (b) ensure the discharge and overflow points of the dam do not cause erosion at the point of discharge/overflow;
  - (c) rehabilitate and stabilize the banks of the dam;
  - (d) construct a baffle and macrophyte zone downstream of the dam; and
  - (e) ensure the integrity of the dam would not be compromised by any flooding in Rocklow Creek; to the satisfaction of the EPA and the Secretary.
34. Prior to carrying out any of these works, the Applicant **must** prepare a Dam Upgrade Plan in consultation with the EPA, and to the satisfaction of the Secretary. This plan must include:
- (a) the detailed design and specifications of the proposed works, which have been certified by a practicing registered engineer;
  - (b) an erosion and sediment control plan for the proposed works, that is consistent with the requirements in the Department of Housing's *Managing Urban Stormwater: Soils and Construction* manual;
  - (c) a vegetation and rehabilitation plan, setting out how the banks of the dam would be rehabilitated and stabilized, and the baffle and macrophyte zone would be constructed;
  - (d) an acid sulfate soil management plan that is consistent with the *NSW Acid Sulfate Soil* manual;
  - (e) a construction program for the proposed works; and
  - (f) a program setting out how the modified dam and associated revegetation works would be maintained during the life of the development.

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

35. Within 1 month of completing the construction works in the Dam Upgrade Plan, the Applicant **must** submit an as-executed report, certified by a practicing registered engineer, to the satisfaction of the EPA and Secretary.

## Flocculant Management

36. The Applicant **must not use flocculants on the site.**
37. *Deleted*

## Other Water Management Works

38. <sup>9</sup>Within 18 months of the date of this consent, the Applicant **must** carry out the following works:
- (a) *Workshop and Fuel Storage Area*
    - desilt drains and culverts upstream of the workshop to limit flooding;
    - construct a first flush collection basin to capture and store the first 13mm of run-off from the external service bays before it is treated by the oil/water separator; and
    - bund and roof the drum storage area;
  - (b) *Magazine Area*
    - reinstate drain through access road to magazines to direct stormwater flows to the main drain;
  - (c) *deleted*
- to the satisfaction of EPA and the Secretary.

## Bunding

39. <sup>10</sup>Impervious bunds must be constructed around all fuel, oil and chemical storage areas and the bund volume must be large enough to contain 110 per cent of the volume held in the largest container. The bund must be designed and installed in accordance with the requirements of the EPA Environment Protection Manual Technical Bulletin *Bunding and Spill Management*.

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<sup>9</sup> Incorporates EPA GTA

<sup>10</sup> Incorporates EPA GTA

## Monitoring

40. The Applicant **must**:
- (a) measure:
    - the volume of water discharged from the site via licenced discharge points;
    - water use on the site;
    - water transfers across the site;
    - dam and water structure storage levels;
  - (b) monitor the quality of the surface water:
    - discharged from the licence discharge point/s of the development;
    - upstream and downstream of the development;
  - (c) monitor flows in Rocklow Creek; and
  - (d) monitor regional groundwater levels and quality;
- to the satisfaction of the EPA and the Secretary.

*Note: On the provision of two years of monitoring data that shows negligible impact on the regional groundwater network, the Secretary may agree to suspend monitoring of regional groundwater levels and/or quality.*

## Management

41. Within 12 months of the date of this consent, the Applicant **must** prepare a Site Water Management Plan for the development, in consultation with the DPI - Water, and to the satisfaction of the Secretary. This plan must include:
- (a) the predicted site water balance;
  - (b) an Erosion and Sediment Control Plan;
  - (c) a Surface Water Monitoring Program
  - (d) a Ground Water Monitoring Program; and
  - (e) an Integrated Water Management Strategy.

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

42. The Erosion and Sediment Control Plan **must**:
- (a) be consistent with the requirements of the Department of Housing's *Managing Urban Stormwater: Soils and Construction* manual;
  - (b) identify activities that could cause soil erosion and generate sediment;
  - (c) describe measures to minimize 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 the structures over time.
43. The Surface Water Monitoring Program **must** include:
- (a) detailed baseline data on surface water flows and quality in Rocklow Creek;
  - (b) surface water impact assessment criteria;
  - (c) a program to monitor surface water flows and quality in Rocklow Creek;
  - (d) a program to monitor bank and bed stability in Rocklow Creek; and
  - (e) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.
44. The Ground Water Monitoring Program **must** include:
- (a) detailed baseline data on ground water levels and quality, based on statistical analysis;
  - (b) ground water impact assessment criteria; and
  - (c) a program to monitor regional ground water levels and quality.

*Note: On the provision of two years of monitoring data that shows negligible impact on the regional groundwater network, the Secretary may agree to suspend monitoring of regional groundwater levels and/or quality.*

45. <sup>11</sup>The Integrated Water Management Strategy **must**:
- (a) explore a range of options for a sustainable resource alternative for water supply to the site;
  - (b) identification of all possible and available sources of water;
  - (c) consistency with Government Water Reform initiatives and policies;
  - (d) quality of water to meet usage requirements including any possible effects on product;
  - (e) costs of supply;

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<sup>11</sup> Incorporates EPA GTA

- (f) health and environmental impacts;
- (g) legislative requirements;
- (h) assessment of the feasibility, benefits and costs of options;
- (i) a process to identify and evaluate preferred options for implementation; and
- (j) the identification of a timetable for implementation of the selected options.

## FLORA AND FAUNA

### Vegetation Offset Strategy

46. The Applicant **must**:
- (a) establish, conserve, and maintain at least:
    - **4.6 hectares** of *Melaleuca armillaris* Tall Shrubland; and
    - **8.2 hectares** of Blue Gum-White Box Woodland/Forest, on Boral-owned land adjacent to the development;
  - (b) conserve, maintain, and enhance the vegetation in the area to the south of the development marked on the map in Appendix 2;
  - (c) conserve, maintain, enhance and establish the vegetation in the area to the south of the development marked on the map in Appendix 3, in accordance with the letter from Boral to the Department dated 22 September 2008 titled *Dunmore Quarry – Revised Offset for Quarry Extension*; and
  - (d) within 12 months of the date of Modification 8, the Applicant must provide a biodiversity offset strategy outlining the measures to offset 48 Illawarra Zieria individuals and 1.94 ha of native vegetation clearing (including 0.05 ha of Illawarra Subtropical Rainforest EEC), to the satisfaction of OEH and the Secretary. The offset must demonstrate that the biodiversity values in the general vicinity of the site have been maintained or improved.
- 46A. Within 12 months of the date of Modification Application 470-11-2003 Mod 4, the Applicant must make suitable arrangements in consultation with the OEH to provide appropriate long term security for the biodiversity offset referred to in condition 46 (c), to the satisfaction of the Secretary.
- 46B. Within 12 months of the date of providing the biodiversity offset strategy required under condition 46(d), the Applicant must make suitable arrangements to provide long term security for this strategy, to the satisfaction of the Secretary.

### Flora and Fauna Management Plan

47. Within 12 months of the date of this consent, the Applicant **must** prepare a Flora and Fauna Management Plan for the development to the satisfaction of the Secretary. This plan must include:
- (a) a Vegetation Clearing Protocol;
  - (b) a Compensatory Habitat Management Plan; and
  - (c) a Remnant Vegetation Conservation Plan.

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

48. The Vegetation Clearing Protocol **must**:
- (a) delineate the areas of remnant vegetation to be cleared; and
  - (b) describe the procedures that would be implemented for:
    - pre-clearance surveys;
    - progressive clearing;
    - fauna management;
    - conserving and reusing topsoil;
    - collecting seed from the site;
    - salvaging and reusing material from the site; and
    - controlling weeds.
49. The Compensatory Habit Management Plan **must**:
- (a) describe the compensatory habitat proposal for the:
    - *Melaleuca armillaris* Tall Shrubland; and
    - Blue Gum-White Box Woodland/Forest;
  - (b) justify why this area(s) is suitable for the compensatory habitat proposal;
  - (c) establish baseline data for the existing habitat in the proposed compensatory habitat area(s);
  - (d) describe how the compensatory habitat proposal would be implemented;
  - (e) set completion criteria for the compensatory habitat proposal; and
  - (f) describe how the performance of the compensatory habitat management proposal would be monitored over time.

50. The Remnant Vegetation Conservation Plan **must**:
- (a) describe what measures would be implemented to conserve, maintain and enhance the vegetation in the area to the south of the development marked in the map in Appendix 2;
  - (b) establish baseline data for the existing vegetation in the area; and
  - (c) describe how the performance of the measures described in (a) above would be monitored over time.

### Reporting

51. The Applicant **must** include a progress report on the implementation of the Flora and Fauna Management Plan in the **Annual Review**.

### Independent Audit

52. Within 3 years of the date of this consent, and every 5 years thereafter unless the **Secretary** directs otherwise, the Applicant **must** commission, and pay the full cost of an Independent Audit of the Flora and Fauna Management Plan. This audit must:
- (a) be conducted by a suitably qualified, experienced, and independent person whose appointment has been endorsed by the **Secretary**;
  - (b) assess the performance of the Flora and Fauna Management Plan;
  - (c) review the adequacy of the Flora and Fauna Management Plan; and, if necessary,
  - (d) recommend actions or measures to improve the performance and/ or adequacy of the Flora and Fauna Management Plan.

## REHABILITATION

### Rehabilitation

53. The Applicant **must** progressively rehabilitate the site to the satisfaction of the **Secretary**.

### Rehabilitation Management Plan

54. Within 6 months of the date of this consent, the Applicant **must** prepare a Rehabilitation Management Plan for the site to the satisfaction of the **Secretary**. This plan must:
- (a) identify the disturbed area at the site;
  - (b) describe in general the short, medium, and long-term measures that would be implemented to rehabilitate the site;
  - (c) describe in detail the measures that would be implemented over the next 5 years to rehabilitate the site; and
  - (d) describe how the performance of these measures would be monitored over time.

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

55. Within 5 years of providing the Rehabilitation Management Plan to the **Secretary**, and every 5 years thereafter, the Applicant **must** review and update the plan to the satisfaction of the **Secretary**.

### Rehabilitation and Conservation Bond

56. Within 6 months of the date of this consent, the Applicant **must** lodge a suitable rehabilitation and conservation bond for the development with the **Secretary**. The sum of the bond **must** be calculated at:
- (a) \$2.50/ m<sup>2</sup> for the area of disturbance at the development; and
  - (b) \$3.00 /m<sup>2</sup> of the area of the compensatory habitat proposal (see Condition 49 above)
- to the satisfaction of the **Secretary**.

#### Notes:

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

57. Within 3 years of lodging the rehabilitation and conservation bond with the **Secretary**, and every 5 years thereafter, unless the **Secretary** directs otherwise, the Applicant **must** review, and if necessary revise, the sum of the rehabilitation bond to the satisfaction of the **Secretary**. This review must consider:
- (a) the effects of inflation;
  - (b) any changes to the area of disturbance; and

- (c) the performance of the compensatory habitat proposal.

### Reporting

58. The Applicant **must** include a progress report on the Rehabilitation Management Plan in the **Annual Review**.

### TRAFFIC AND TRANSPORT

#### North Kiama Bypass

59. The Applicant **must** facilitate access to the North Kiama Bypass along Tabbita Road in accordance with the terms set out in the Deed of Agreement between the Applicant and Dunmore Sand and Soil Pty Ltd, dated 29 July 2004.

#### Transport Management Plan

60. The Applicant **must** prepare a Transport Management Plan for the development to the satisfaction of the **Secretary**. This plan must:
- be prepared by a suitably qualified traffic consultant, in consultation with RMS and Council, and submitted to the **Secretary** for approval by 31 May 2014;
  - include a drivers' code of conduct for the development;
  - describe the measures that would be implemented to ensure:
    - all drivers of development-related vehicles comply with the drivers' code of conduct; and
    - compliance with the relevant conditions of this consent; and
  - include a program to monitor the effectiveness of the implementation of these measures.

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

#### Cumulative Traffic Impact Study

- 60A. The Applicant **must**, in conjunction with the operators of the Bass Point Quarry and the Albion Park Quarry, cause to be prepared an independent Cumulative Traffic Impact Study. The study must:
- be undertaken by a suitably qualified traffic consultant, whose appointment has been approved by the **Secretary**;
  - be commissioned by 30 June 2014, and completed by 31 October 2014, or as otherwise agreed in writing by the **Secretary**;
  - be co-funded by the operators of the Dunmore, Bass Point and Albion Park quarries, proportionate to the quarries' respective quarry product road transport limits, as approved at 30 June 2014;
  - include a comprehensive assessment of current and future projected cumulative traffic impacts of the three quarries on the classified road network, undertaken in consultation with the RMS; and
  - identify any reasonable and feasible measures that can be implemented to minimise the traffic and road safety impacts of quarry trucks on Mount Ousley Road, and the likely cost of implementing these measures.

- 60B. The Applicant **must**, in conjunction with the operators of the Bass Point Quarry and the Albion Park Quarry, prepare and implement a program to implement any reasonable and feasible measures identified in the Cumulative Traffic Impact Study not already undertaken by the Applicant, in an equitable manner with the two other quarry operators, to the satisfaction of the **Secretary**. The program must be submitted to the **Secretary** for approval by 28 February 2015, or as otherwise agreed in writing by the **Secretary**.

#### Parking

61. The Applicant **must** provide sufficient parking on-site for all quarry-related traffic to the satisfaction of the **Secretary**.

#### Road Haulage

62. The Applicant **must** ensure that all loaded vehicles entering or leaving the site are covered.
63. The Applicant **must** ensure all loaded vehicles leaving the site are cleaned of materials that may fall on the road before they are allowed to leave the site.

## ABORIGINAL HERITAGE

64. The Applicant **must** not destroy Aboriginal site DQ2 before it has obtained approval from the **OEH** under section 90 of the *National Parks & Wildlife Act 1974*.

### Notes:

- The **OEH** has indicated that it will issue this approval subject to conditions.
- If a salvage component (including “community collection”) is to accompany the application under section 90, the application should include a methodology/research design for the salvage activity, and an application for care and control of any recovered and collected Aboriginal objects by the Aboriginal community involved.

65. Within 6 months of the date of this consent, the Applicant **must** conserve Aboriginal site DQ2004/1 in consultation with the Aboriginal community, and to the satisfaction of the **OEH**.

## VISUAL IMPACT

### Visual Amenities

66. The Applicant **must** minimise the visual impacts of the development to the satisfaction of the **Secretary**.
67. Prior to carrying out any development that would be visible from the areas to the south west of the quarry, the Applicant **must** construct, and subsequently maintain, the proposed visual/ noise bund between the Croome Farm extraction area and the Jamberoo Valley to the satisfaction of the **Secretary**.
- 67A. The Applicant **must**:
- a) construct the blending plant in the location shown on the figure in Appendix 4; and
  - b) ensure the maximum height of the blending plant is no greater than 15.2 m.

### Lighting Emissions

68. The Applicant **must** take all practicable measures to prevent and/or minimise any off-site lighting impacts from the development.
69. All external lighting associated with the development **must** comply with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*.

## WASTE MANAGEMENT

### Waste Minimisation

70. The Applicant **must** minimise the amount of waste generated by the development to the satisfaction of the **Secretary**.

### Waste Classification

71. <sup>12</sup>All liquid and non liquid wastes resulting from activities and processes at the site must be assessed, classified and managed in accordance with the **EPA**’s Environmental Guidelines: *Assessment, Classification and Management of Liquid and Non-liquid Wastes (1999)*, or any other **EPA** document superseding this guideline.

### Reporting

72. The Applicant **must** describe what measures have been implemented to minimise the amount of waste generated by the development in the **Annual Review**.

## EMERGENCY AND HAZARDS MANAGEMENT

### Dangerous Goods

73. The Applicant **must** ensure that the storage, handling, and transport of dangerous goods is done in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the Dangerous Goods Code.

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<sup>12</sup> Incorporates **EPA** GTA

## Safety

74. The Applicant **must** secure the development to ensure public safety to the satisfaction of the **Secretary**.

## Emergency Management

75. <sup>13</sup>Within 6 months of the date of this consent, the Applicant **must** document, and subsequently implement measures to minimise the environmental impacts of any emergency situations that could arise as a result of the operation of the Dunmore Quarry to the satisfaction of the **EPA**. This documentation must:
- (a) identify any significant threats to the environment and/ or public health that could arise from activities associated with the operation of the quarry or construction works associated with the production increase. These threats may include excessive rainfall, problems during construction and operation, pump failures, excess flocculation, power or other utility failure, natural disaster, landslip, accidental spills and discharges, train derailment, spillage from trucks, fire etc;
  - (b) identify any subsequent direct or indirect environmental effects as a result of the threats;
  - (c) identify the pollution that would result due to these threats and impacts on operations and what impact the pollution would have on the health of the community and the environment;
  - (d) develop actions to effectively respond to the disruption of operations so the risk of pollution is minimised;
  - (e) develop a communications strategy for alerting relevant agencies and the potentially affected community in the event of the disruption to operations leading to significant pollution;
  - (f) ensure that all relevant employees are familiar with the documentation; and
  - (g) when developing this documentation identify any opportunities to integrate with Boral Emergency plans.

## BUSHFIRE MANAGEMENT

76. The Applicant **must**:
- (a) ensure that the development 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.
77. Within 6 months of the date of this consent, the Applicant **must** prepare a Bushfire Management Plan for the development, to the satisfaction of Council and the Rural Fire Service.

## PRODUCTION DATA

78. The Applicant **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**.

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<sup>13</sup> Incorporates **DECC** GTA

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

### **ENVIRONMENTAL MANAGEMENT**

#### **Environmental Management Strategy**

1. If the Secretary requires, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
  - (a) be submitted to the Secretary for approval within 6 months of the Secretary requiring preparation of the strategy by notice to the Applicant;
  - (b) provide the strategic framework for the environmental management of the development;
  - (c) identify the statutory approvals that apply to the development;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
  - (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 development;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the development;
    - 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 consent; and
    - a clear plan depicting all the monitoring required to be carried out under the conditions of this consent.

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

#### **Management Plan Requirements**

2. The Applicant must ensure that the management plans required under this consent 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 development 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 development; 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 development 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.*

### Updating & Staging Submission of Strategies, Plans or Programs

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

With the agreement of the Secretary, the Applicant may revise any strategy, plan or program approved under this consent without consulting with all the parties nominated under the applicable conditions of consent.

*Notes:*

- While any strategy, plan or program may be submitted on a staged basis, the Applicant will need to ensure that the existing 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.

### Revision of Strategies, Plans & Programs

4. Within 3 months of the submission of an:
  - (a) incident report under condition 7 below;
  - (b) Annual Review under condition 9 below;
  - (c) audit report under condition 10 below; and
  - (d) any modifications to this consent,the Applicant must review, and if necessary revise, the strategies, plans, and programs required under this consent, to the satisfaction of the Secretary.

*Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.*

### Adaptive Management

5. The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 4. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent 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 Applicant must, at the earliest opportunity:

- (a) take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur;
- (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
- (c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.

### COMMUNITY CONSULTATIVE COMMITTEE

6. The Applicant must operate a Community Consultative Committee (CCC) for the development, 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 Applicant complies with this consent.
- In accordance with the guideline, the committee should be comprised of an independent chair and appropriate representation from the Applicant, Council, and the local community.
- The requirement for this CCC may be fulfilled by a regional CCC for any two or more of Boral's quarrying operations in the South Coast area.

## REPORTING

### Incident Reporting

7. The Applicant must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant 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

8. The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

### Annual Review

9. By the end of September each year, or other timing as may be agreed by the Secretary, the Applicant must submit a report to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must:
  - (a) describe the development (including rehabilitation) that was carried out in the previous financial year, and the development that is proposed to be carried out over the current financial year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous financial 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 consent;
    - monitoring results of previous years; and
    - relevant predictions in the documents listed in condition 2 of Schedule 3;
  - (c) identify any non-compliance over the last financial 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 development;
  - (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
  - (f) describe what measures will be implemented over the current financial year to improve the environmental performance of the development.

The Applicant must ensure that copies of the Annual Review are submitted to Council and are available to the Community Consultative Committee (see condition 6 of Schedule 5) and any interested person upon request.

### INDEPENDENT ENVIRONMENTAL AUDIT

10. Prior to 1 April 2017, and every three years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. 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 development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licences (including any assessment, plan or program required under these approvals);
  - (d) review the adequacy of any approved strategies, plans or programs required under the abovementioned approvals;
  - (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, 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.*

11. Within 12 weeks of commencing this audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report.

## ACCESS TO INFORMATION

12. By 31 December 2016, unless otherwise agreed by the Secretary, the Applicant must:

- (a) make the following information publicly available on its website:
  - the documents listed in condition 2 of Schedule 3;
  - current statutory approvals for the development;
  - approved strategies, plans or programs required under the conditions of this consent;
  - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
  - a complaints register, updated quarterly;
  - the Annual Reviews (over the last 5 years);
  - any independent environmental audit, and the Applicant's response to the recommendations in any audit;
  - 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**

Land to which the Development Application refers:

**Local Government Area:**

Shellharbour

**Suburb, town or locality:**

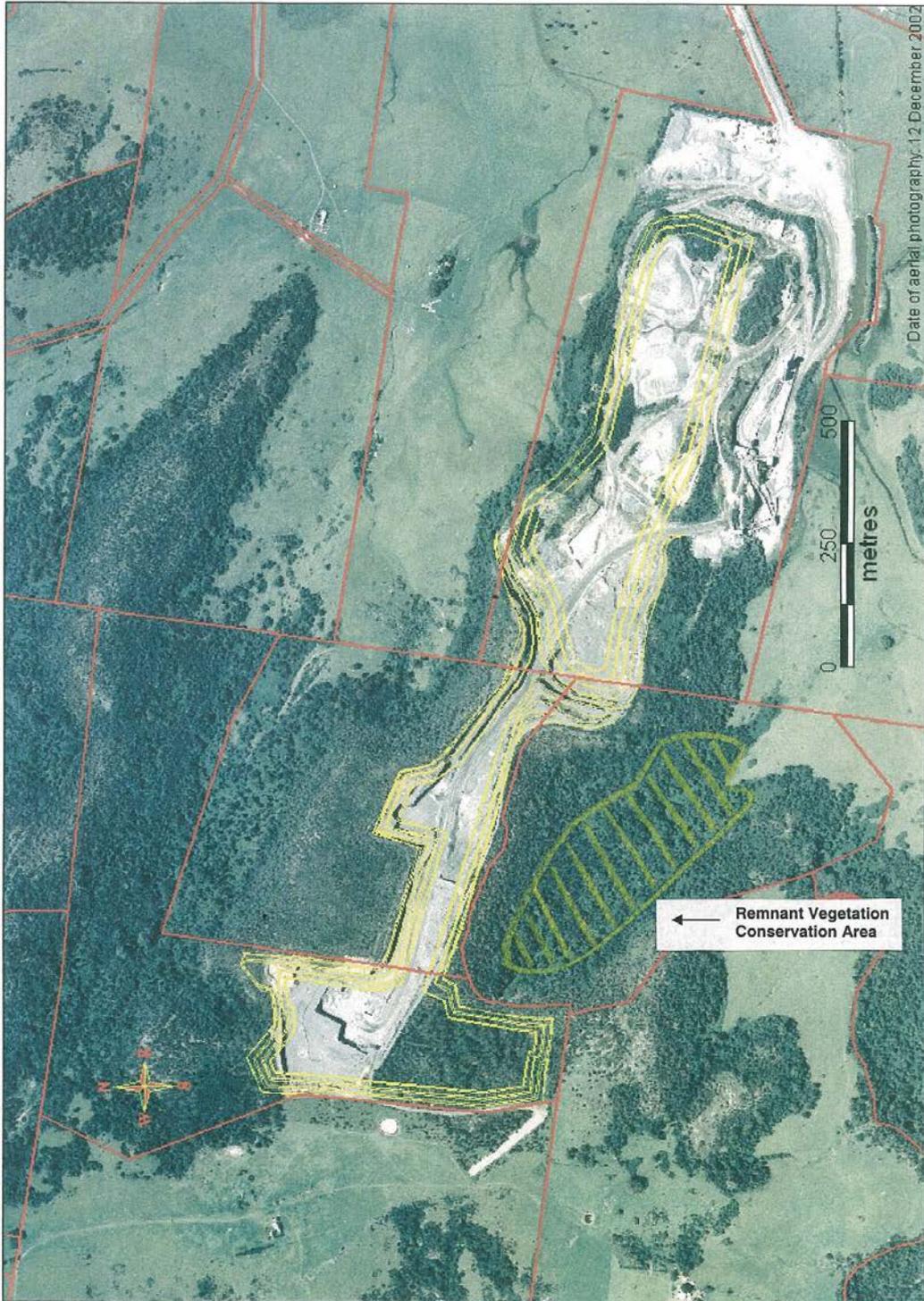
Dunmore

**Land:**

<b>Lot No.</b>	<b>DP No.</b>
Lot 1	DP 213575
Lot 3	DP 1030504
Lot 4	DP 1030504
Lot 4	DP 227046
Lot 1	DP 1002951
Lot 1	DP 224597
Lot 2	DP 224597
Lot 4	DP 571406
Lot 6	DP 1001931

APPENDIX 2

REMNANT VEGETATION CONSERVATION AREA



## APPENDIX 3 BIODIVERSITY OFFSET



**Revised Biodiversity Offset**  
for the  
**Dunmore Hard Rock Quarry Extension**  
22 September 2008

**REFERENCE**

- - - - - Proposed Active Management Zone (8ha)
- . . . . . Land to be fenced and also subject to security mechanism (7.8ha)
- Previously proposed offset area
- Extent of cattle proof fencing

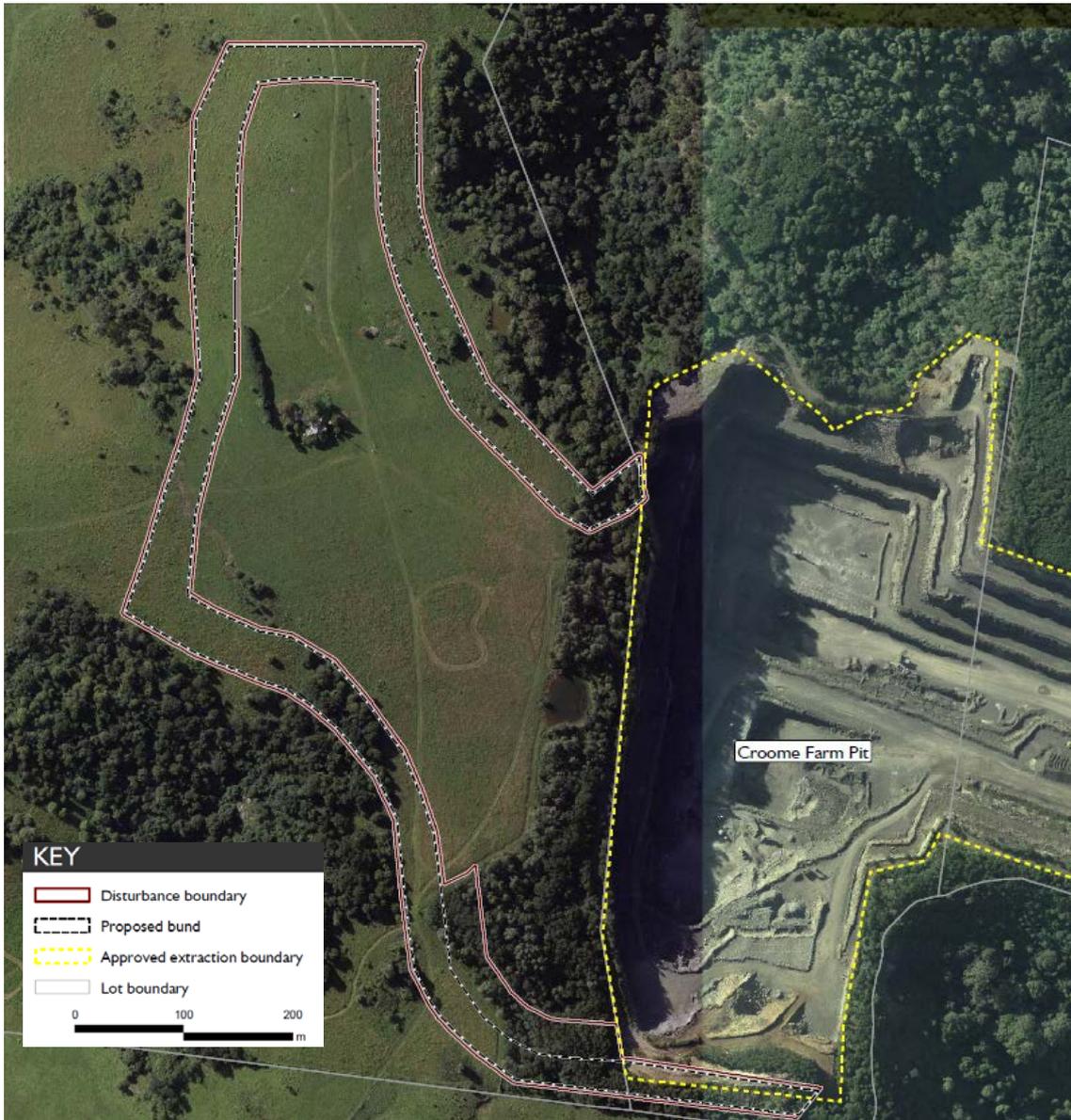
0 40 80 120 Meters



**Attachment 1**

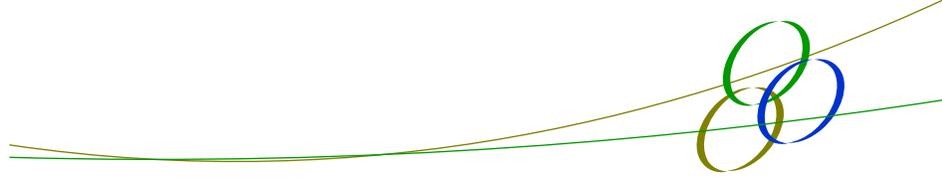


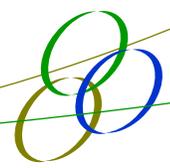
Appendix 5  
Location of Bund



## **Appendix 2**

*2017 Audit Evidence*



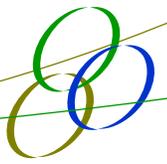


(i) Wall calendar review schedule.



(ii) Site boundary marker.



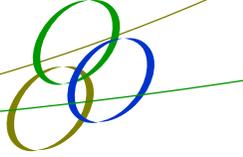


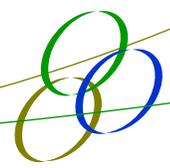
(iii) Water truck in operation.



(iv) Sample meteorological monitoring results.

TOA5 TIMESTAMP TS	Dunmore RECORD RN	CR1000 AirTempC_	4410 AirTempC_	CR1000 AirTempC_	53922 RHpercent	Daily RHpercent	WSpeedmj WSpeedmj	WSpeedmj WSpeedmj	WSpeedmj WSpeedmj	WSpeedmps_	TMx TMx	Tot Tot	Tot Tot	Smp Smp	BattVolt		
		Max	Min	Max	Min	Max	WVc	WVc	WVc	WVc	Max	TMx	Tot	Smp			
06-02-15 9:00	0	22.41	15.36	16.21	90.8	57.07	2.086	2.086	2.086	215.6	58.87	6.575	05-02-15 11:54	1	11.86	2.784	13.33
07-02-15 9:00	1	23.74	15.59	16.07	95.1	53.37	2.232	2.232	2.232	178.8	71.04	7.7	06-02-15 12:39	0	23.71	4.643	13.68
08-02-15 9:00	2	27.2	15.93	16.74	99.3	55.3	2.258	2.258	2.258	333.3	62.24	8.75	07-02-15 16:49	0	24.03	4.93	13.33
09-02-15 9:00	3	29.72	15.95	20.7	90.9	46.75	2.384	2.384	2.384	153.2	70.09	9.43	09-02-15 4:08	0	24.22	5.403	13.74
10-02-15 9:00	4	25.53	18.91	19.6	100.2	67.37	1.661	1.661	1.661	214.6	39.02	7.325	09-02-15 10:12	6	10.9	2.172	13.25
11-02-15 9:00	5	26.06	25.63	21.09	93.9	66.25	2.704	2.704	2.704	12.7	75.38	7.775	10-02-15 21:10	2.5	20.51	4.049	13.25
12-02-15 9:00	6	26.32	25.94	18.65	96.4	64.45	3.457	3.457	3.457	353.3	58.13	10.7	11-02-15 16:00	0	25.19	4.785	13.26
13-02-15 9:00	7	26.39	25.96	18.95	99.8	62.29	2.463	2.463	2.463	181.2	47.91	9.58	12-02-15 16:03	2.5	20.56	3.959	13.26
14-02-15 9:00	8	24.72	24.44	17.07	100.2	70.36	1.969	1.969	1.969	149.6	70.31	9.35	13-02-15 22:38	12.5	19.21	3.65	13.6
15-02-15 9:00	9	25.49	25.17	17.84	100.2	71.54	2.754	2.754	2.754	349.2	60.49	9.8	14-02-15 12:15	10.5	14.05	2.847	13.31
16-02-15 9:00	10	25.39	25.4	18.42	100.2	62.97	2.007	2.007	2.007	253.1	92.5	6.95	15-02-15 10:20	0	23.98	4.549	13.25
17-02-15 9:00	11	27.43	26.86	18.52	100.2	69.04	3.257	3.257	3.257	341.4	49.87	11.23	16-02-15 13:00	0	22	4.68	13.61
18-02-15 9:00	12	25.99	25.59	20.39	93.4	60.18	4.423	4.423	4.423	353.7	40.6	14.08	17-02-15 14:28	0	25.99	5.22	13.27
19-02-15 9:00	13	26.35	25.96	18.91	100.2	61.36	2.686	2.686	2.686	355.3	72.86	10.93	18-02-15 15:45	2	23.67	4.546	13.29
20-02-15 9:00	14	24.43	24.38	18.45	100.1	69.6	2.101	2.101	2.101	3.33	61	8.9	19-02-15 17:32	0.5	15.35	2.878	13.24
21-02-15 9:00	15	25.18	24.82	19.95	100.2	69.89	1.604	1.604	1.604	21.32	51.16	6.275	20-02-15 10:59	1	16.9	3.202	13.23
22-02-15 9:00	16	24.33	24.31	18.57	100.2	76.42	1.307	1.307	1.307	266.1	68.22	6.125	21-02-15 11:41	4.5	11.07	2.032	13.25
23-02-15 9:00	17	26.08	25.54	18.75	99.8	69.04	2.067	2.067	2.067	9.2	61.37	7.775	22-02-15 16:19	0	18.32	3.586	13.6
24-02-15 9:00	18	25.52	25.22	19.31	99.9	67.23	2.576	2.576	2.576	17.88	62.58	8.6	24-02-15 8:40	0	16.12	3.169	13.22
25-02-15 9:00	19	23.18	22.97	18.11	99.5	65.33	3.211	3.211	3.211	190.5	40.88	10.7	24-02-15 12:41	26.5	16.25	3.059	13.4
26-02-15 9:00	20	22.05	21.87	16.5	98.9	72.77	1.495	1.495	1.495	218.9	40.7	6.8	25-02-15 12:20	1	10.42	1.931	13.23
27-02-15 9:00	21	25.69	25.35	18.78	96.7	63.21	2.2	2.2	2.2	233.8	89.5	6.35	26-02-15 13:02	1.5	17.7	3.541	13.29
28-02-15 9:00	22	24.92	24.56	17.71	100.1	61.93	1.88	1.88	1.88	359.7	81.7	6.575	27-02-15 12:10	0	20.82	4.115	13.25
01-03-15 9:00	23	28.1	27.75	18.85	99.8	61.08	2.098	2.098	2.098	16.75	36.38	8.9	28-02-15 15:40	0	18.19	3.763	13.3
02-03-15 9:00	24	29.72	29.32	16.03	93.9	53.27	3.647	3.647	3.647	183.2	47.97	11.68	01-03-15 14:35	2.5	13.72	3.398	13.25
03-03-15 9:00	25	23.25	22.99	17.37	85.1	53.84	1.982	1.982	1.982	279.5	71.3	6.5	02-03-15 10:48	0	17.13	3.587	13.44
04-03-15 9:00	26	25.75	25.37	18.58	97.1	49.76	1.396	1.396	1.396	15.14	56.15	6.5	03-03-15 10:39	0	19.15	4.02	13.27
05-03-15 9:00	27	25.52	25.48	14.62	100.2	30	1.905	1.905	1.905	44.81	82.7	8.08	05-03-15 5:13	0	19.12	3.966	13.24
06-03-15 9:00	28	24.89	24.68	12.09	72.13	29.17	3.082	3.082	3.082	222.1	67.52	14.67	05-03-15 11:01	0	22.1	4.844	13.4
07-03-15 9:00	29	28.34	28.17	14.96	100.2	28.49	2.187	2.187	2.187	244.7	34.44	10.55	06-03-15 9:10	0	21.61	5.429	13.65
08-03-15 9:00	30	23.05	22.52	17.04	98.7	70.95	2.409	2.409	2.409	338.7	62.37	9.05	07-03-15 16:08	0	15.98	2.899	13.34
09-03-15 9:00	31	24.39	24.4	15.96	100	68.39	1.619	1.619	1.619	164.2	41.31	8.22	08-03-15 13:00	0	21.03	3.842	13.23
10-03-15 9:00	32	28.33	28.21	19.58	88.8	42.73	2.554	2.554	2.554	174.5	80.9	6.275	10-03-15 0:13	0	22.57	5.109	13.23
11-03-15 9:00	33	24.62	24.56	17.71	99.8	68.09	1.702	1.702	1.702	163.4	63.74	6.65	10-03-15 16:35	0	13.61	2.739	13.23
12-03-15 9:00	34	25.98	25.79	16.97	97.2	63.97	1.92	1.92	1.92	317.7	84.2	8.22	11-03-15 16:43	3	15.44	3.147	13.23
13-03-15 9:00	35	25.46	25.2	16.5	95.1	66.8	3.321	3.321	3.321	187.2	32.93	8.3	13-03-15 3:52	0	12.38	2.725	13.75
14-03-15 9:00	36	22.35	22.5	14.56	90.5	60.3	2.392	2.392	2.392	226.2	36.64	8.75	13-03-15 10:25	0	10.87	2.382	13.62
15-03-15 9:00	37	23.45	23.1	15.56	91.9	50.98	2.772	2.772	2.772	331.3	86.2	10.78	15-03-15 5:31	0	19.48	4.182	13.22



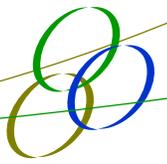


**(v) Photograph of bunds.**



**(vi) Photograph of water level monitoring devices.**



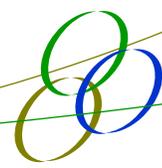


**(vii) Photograph of car parking.**



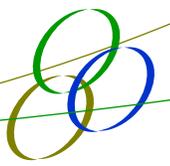
**(viii) Photograph of vehicle coverings.**





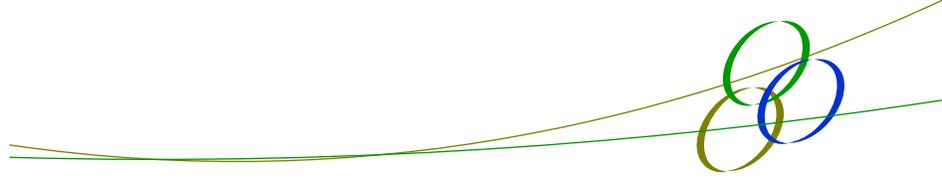
**(ix) Photograph of mud nuisance.**





## Appendix 3

*EPL*



# Environment Protection Licence



Licence - 77

## Licence Details

Number:	77
Anniversary Date:	31-August

## Licensee

BORAL RESOURCES (NSW) PTY LTD

PO BOX 42

WENTWORTHVILLE NSW 2145

## Premises

BORAL DUNMORE QUARRY

PRINCES HIGHWAY

DUNMORE NSW 2529

## Scheduled Activity

Crushing, grinding or separating

Extractive activities

## Fee Based Activity

	<u>Scale</u>
Crushing, grinding or separating	> 500000-2000000 T annual processing capacity
Land-based extractive activity	> 500000-2000000 T annual capacity to extract, process or store

## Region

Metropolitan - Illawarra

Level 3, NSW Govt Offices, 84 Crown Street

WOLLONGONG NSW 2500

Phone: (02) 4224 4100

Fax: (02) 4224 4110

PO Box 513 WOLLONGONG EAST

NSW 2520

# Environment Protection Licence

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# Environment Protection Licence

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## 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).

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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 42</b>
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<b>WENTWORTHVILLE NSW 2145</b>
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subject to the conditions which follow.

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## 1 Administrative Conditions

### A1 What the licence authorises and regulates

A1.1 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
Crushing, grinding or separating	Crushing, grinding or separating	> 500000 - 2000000 T annual processing capacity
Extractive activities	Land-based extractive activity	> 500000 - 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
BORAL DUNMORE QUARRY
PRINCES HIGHWAY
DUNMORE
NSW 2529
LOT 1 DP 213575, LOT 1 DP 224597, LOT 2 DP 224597, LOT 4 DP 227046, LOT 4 DP 571406, LOT 6 DP 1001931, LOT 1 DP 1002951, PART LOT 3 DP 1030504, LOT 4 DP 1030504
EXCLUDING BATCH PLANT LAND SHOWN ON PLAN 6673 - SEE DEC FILE280279A15

### 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:

- 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
- the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

A3.2 Further to condition A4.1, the works and activities must be carried out in accordance with:

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- a) Correspondence entitled "Application to vary Environment Protection Licence No.77", dated 20 June 2006, record number WOF14132.
- b) Correspondence entitled "Response to Variation" emailed to DECC on 27 September 2006, including map "Boral Dunmore Quarry EPL 77 – Monitoring Location", record number DOC06/51716.
- c) Correspondence entitled "Dunmore Quarry – Revised Biodiversity Offset for Quarry Extension" prepared for Department of Planning and copied to the EPA, dated 22 September 2008.
- d) "Boral Resources (NSW) Pty Ltd, Dunmore Quarry Water Management, Draft Water Management Plan" dated 28 April 2008, prepared by Evans and Peck.

## 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	Air Emissions Monitoring - Dust Deposition		Dust deposition gauge located at Croome Farm north and labelled "1" on map titled "Boral Dunmore Quarry EPL 77 - Monitoring Locations".
2	Air Emissions Monitoring - Dust Deposition		Dust deposition gauge located at Croome Farm south and labelled "2" on map titled "Boral Dunmore Quarry EPL 77 - Monitoring Locations".
3	Air Emissions Monitoring - Dust Deposition		Dust deposition gauge located on the south-eastern side of quarry and labelled "3" on map titled "Boral Dunmore Quarry EPL 77 - Monitoring Locations".
4	Air Emissions Monitoring - Dust Deposition		Dust deposition gauge located on the north-east side of quarry and labelled "4" on map titled "Boral Dunmore Quarry EPL 77 - Monitoring Locations".
5	Air emissions monitoring - high volume air sampler or equivalent		High volume air sampler or equivalent located on the southern side of the quarry and labelled "5" on the map titled "Boral Dunmore Quarry EPL 77 - Monitoring Locations".

P1.2 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

P1.3 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

### *Water and land*

# Environment Protection Licence



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EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
6	Discharge to waters and discharge quality monitoring	Discharge to waters and discharge quality monitoring	Discharge from the bio-filtration swale to Rocklow Creek labelled as "6" on map titled "Boral Dunmore Quarry EPL 77 - Monitoring Locations".
7	Discharge to waters and discharge quality monitoring	Discharge to waters and discharge quality monitoring	Uncontrolled discharge from upgraded existing stormwater treatment dam to Rocklow Creek labelled as "7" on map titled "Boral Dunmore Quarry EPL 77 - Monitoring Locations".
8	Effluent quality monitoring		At the discharge point end of the upgraded existing stormwater treatment dam labelled as "8" on map titled "Boral Dunmore Quarry EPL 77 - Monitoring Locations".
9	Discharge to waters and stormwater quality monitoring		Rocklow Creek at the boundary between Boral Quarry and Creagan Property
10	Discharge to waters and discharge quality monitoring	Discharge to waters and discharge quality monitoring	Uncontrolled discharge from top stormwater treatment dam to Rocklow Creek labelled as "10" on map titled "Boral Dunmore Quarry EPL 77 - Monitoring Locations".

P1.4 The following point(s) in the table are identified in this licence for the purpose of the monitoring of weather parameters at the point.

EPA Identification Number	Type of Monitoring Point	Description of Location
11	Weather Analysis	Weather station located on the southern side of the quarry and labelled "11" on the map titled "Boral Dunmore Quarry EPL 77 - Monitoring Locations".

## 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 Concentration limits

L2.1 For each monitoring/discharge point or utilisation area specified in the table below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the

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concentration limits specified for that pollutant in the table.

- L2.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.
- L2.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\.
- L2.4 Water and/or Land Concentration Limits

## POINT 6

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

## L3 Noise limits

- L3.1 Noise from the premises must not exceed the limits in the following table when measured at the nominated receiver locations. Note that the noise limits represent the noise contribution from the premises.
- L3.2 Noise Limits for the Dunmore Quarry Operations - LAeq(15 minute)

Receiver Locations (See Note)	Day dB(A)	Evening dB(A)	Night dB(A)	Shoulder dB(A)
Location A McParland Residence	35	35	35	35
Location K Stocker Residence	49	44	38	47
Location O Dunmore Lakes	49	44	38	47
Location J Cregan Residence	Negotiated Agreement in Place			

- L3.3 Noise Limits for the Dunmore Quarry Operations LA1 - (1 minute)

Receiver Locations (See Note)	Night dB(A)	Shoulder dB(A)
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Location A McParland Residence	45	45
Location K Stocker Residence	48	55
Location O Dunmore Lakes	48	55
Location J Cregan Residence	Negotiated Agreement in Place	Negotiated Agreement in Place

- Note: 1. Receiver locations nominated in Appendix A Figure A2 of the report prepared by Richard Heggie Associates Report NO 605/03 Titled Part 1: *Noise Assessment – Dunmore Quarry Production Increase*.
2. The above table may be varied in the instance that negotiated agreements are entered into by the licensee and affected residents or if existing arrangements become void.
3. In conditions L3.2 and L3.3:
- “Day” refers to 07.00 am to 06.00 pm Monday to Saturday and 08:00 am to 06:00 pm Sundays and public holidays.
  - “Evening” refers to 06.00 pm to 10.00 pm.
  - “Night” refers to 10.00 pm to 06.00 am Monday to Saturday and 10:00 pm to 08:00 am Sundays and public holidays.
  - “Shoulder” refers to 06.00 am to 07.00 am Monday to Saturday.

L3.4 Noise from the premises is to be measured at 1m from the dwelling façade to determine compliance with the LA1(1minute) noise limits.

L3.5 The noise emission limits identified above apply under meteorological conditions of:

- a) Wind speed up to 3m/s at 10 metres above ground level; or
- b) Temperature inversion conditions of up to 3oC/100m and wind speed up to 2m/s at 10 metres above the ground.

## L4 Blasting

- L4.1 The overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- L4.2 The overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- L4.5 BLASTING TIMES AND FREQUENCY

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Blasting operations on the premises may only take place:

- a) between 9.00am and 5.00pm Monday to Saturday inclusive;
- b) are limited to 2 blasts each day; and
- c) at such other times as may be approved by the EPA.

## L5 Hours of operation

L5.1 All work at the premises must be conducted between the following hours:

Activity	Days of the Week	Time
Extraction and Processing	Monday to Saturday	6:00am to 10:00pm
Product Transfer to Stockpiles	Monday to Saturday	6:00am to Midnight
Distribution of Product (Sales)	Monday to Saturday	24 hours
Distribution of Product (Sales)	Sunday	Limited - See Condition L5.2
Maintenance	Monday to Sunday	24 hours

L5.2 EXEMPTION FOR DISTRIBUTION OF PRODUCT FROM THE PREMISES (SALES) ON SUNDAYS

Distribution of product from the premises (Sales) on Sunday by road are to be no more than 15 Sundays in any one licensing year between the hours of 8-00am – 6-00pm unless prior approval is obtained from the EPA. This restriction does not apply to sales by rail, which are allowed 24 hours.

A logbook must be kept in the office building for the purpose of identifying Sundays when sales have occurred. An entry must be made in that log book on any Sunday when sales activities occur (excluding sales activities that consist of rail loading alone).

Note: Sales includes transfer of product to road and rail vehicles from stockpiles and subsequent haulage off-site. It does not include transfer of product from the processing plant to the product stockpile areas.

## L6 Other limit conditions

L6.1 The licensee must not extract and/or process greater than 2 million tonnes of extractive material per year.

Note: The licensee, through Development Consent 470-11-2003, has approval to produce or transport up to 2.5 million tonnes per annum of extractive material. The licensee has advised the EPA by letter dated 20 June 2006 (refer A4.2) that they do not plan to extract and/or process and/or transport in excess of 2 million tonnes per annum of extractive material for a number of years and has requested they be placed in the 500,000-2,000,000 tonne per annum licence fee scale. This condition therefore adds a production limit of 2 million tonnes per annum.

L6.2 OVERSIZED MATERIAL

L6.3 Oversized raw feed material must not be processed during the shoulder period, being 6-00am –

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7-00am.

Note: For the purpose of this condition oversized raw feed material is defined as where more than 50% of the shot is over 900mm in diameter.

Note: In consultation with the proponent the EPA will review at the EPL review stage the necessity to amend or continue the restriction in processing oversized raw feed material based on the findings of any submitted noise monitoring reports.

## 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.

### O4 Processes and management

O4.1 WATER POLLUTION CONTROL

O4.2 The storm water management system is to be managed and operated in accordance with the operating principles of the revised Water Management Plan prepared by Evans and Peck, dated April 2008.

O4.3 The stormwater management system must be maintained at its design capacity. In this regard the licensee must inspect the drainage system and associated stormwater infrastructure every three months and following heavy rainfall and arrange for routine maintenance as required. Inspection sheets certifying this work has been completed and detailing actions arising from the inspections must be kept in accordance with the requirements of this licence.

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- O4.4 Any proposal for a change of flocculant other than those specified in the report titled Dunmore Quarry - Response to Water Management Issues, prepared by Environmental Resources Management Australia and dated February 2004, requires EPA approval and may require an appropriate eco-toxicological risk assessment to the satisfaction of the EPA. The flocculants nominated in the abovementioned report were aluminium sulphate and ferric chloride.
- O4.5 Impervious bunds must be constructed around all fuel, oil and chemical storage areas and the bund volume must be large enough to contain 110 per cent of the volume held in the largest container.

## O5 Waste management

- O5.1 All liquid and non liquid wastes resulting from activities and processes at the premises must be assessed, classified and managed in accordance with the EPA's Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-liquid Wastes (1999), or any other EPA document superseding this guideline.

## 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 be recorded and retained as set out in this condition.
- 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.
- M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
- 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 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

# Environment Protection Licence



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Pollutant	Units of measure	Frequency	Sampling Method
Ash	grams per square metre per month	Monthly	AM-19
Insoluble solids	grams per square metre per month	Monthly	AM-19
Soluble matter	grams per square metre per month	Monthly	AM-19
Total Solid Particles	grams per square metre per month	Monthly	AM-19

## POINT 2

Pollutant	Units of measure	Frequency	Sampling Method
Ash	grams per square metre per month	Monthly	AM-19
Insoluble solids	grams per square metre per month	Monthly	AM-19
Soluble matter	grams per square metre per month	Monthly	AM-19
Total Solid Particles	grams per square metre per month	Monthly	AM-19

## POINT 3

Pollutant	Units of measure	Frequency	Sampling Method
Ash	grams per square metre per month	Monthly	AM-19
Insoluble solids	grams per square metre per month	Monthly	AM-19
Soluble matter	grams per square metre per month	Monthly	AM-19
Total Solid Particles	grams per square metre per month	Monthly	AM-19

## POINT 4

Pollutant	Units of measure	Frequency	Sampling Method
Ash	grams per square metre per month	Monthly	AM-19
Insoluble solids	grams per square metre per month	Monthly	AM-19
Soluble matter	grams per square metre per month	Monthly	AM-19
Total Solid Particles	grams per square metre per month	Monthly	AM-19

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**POINT 5**

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Every 6 days	AM-18

## M2.3 Water and/ or Land Monitoring Requirements

**POINT 6**

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	microsiemens per centimetre	Daily during any discharge	In situ
Flow	kilolitres per day	Continuous during discharge	Special Method 1
Oil and Grease	Visible	Daily during any discharge	Inspection
pH	pH	Daily during any discharge	In situ
Total suspended solids	milligrams per litre	Daily during any discharge	Grab sample
Turbidity	nephelometric turbidity units	Daily during any discharge	In situ

**POINT 7**

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	microsiemens per centimetre	Daily during any discharge	In situ
Oil and Grease	Visible	Daily during any discharge	Inspection
pH	pH	Daily during any discharge	In situ
Total suspended solids	milligrams per litre	Daily during any discharge	Grab sample
Turbidity	nephelometric turbidity units	Daily during any discharge	In situ

**POINT 8**

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	microsiemens per centimetre	Monthly	In situ
Oil and Grease	Visible	Monthly	Inspection
pH	pH	Monthly	In situ
Total suspended solids	milligrams per litre	Monthly	Grab sample

# Environment Protection Licence



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Turbidity	nephelometric turbidity units	Monthly	In situ
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## POINT 10

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	microsiemens per centimetre	Daily during any discharge	In situ
Oil and Grease	Visible	Daily during any discharge	Inspection
pH	pH	Daily during any discharge	In situ
Total suspended solids	milligrams per litre	Daily during any discharge	Grab sample
Turbidity	nephelometric turbidity units	Daily during any discharge	In situ

M2.4 For the purposes of the table(s) above Special Method 1 means measurement of flow at the controlled discharge from the upgraded existing stormwater treatment dam to the bio-filtration swale.

Note: In the event that the above monitoring locations become inaccessible due to site flooding, the associated monitoring requirements may be delayed until the affected locations become safely accessible. In the event site flooding prevents monitoring the licensee must notify the Environment Protection Authority.

## 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:

- any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
- 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
- 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".

M3.2 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

## M4 Weather monitoring

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M4.1 For each monitoring point specified in the table below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

## POINT 11

Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method
Rainfall	millimetres	Continuous	1 hour	AM-4
Wind speed @ 10 metres	metres per second	Continuous	15 minute	AM-2 & AM-4
Wind direction @ 10 metres	degrees	Continuous	15 minute	AM-2 & AM-4
Temperature @ 2 metres	degrees celcius	Continuous	15 minute	AM-4
Temperature @ 10 metres	degrees celcius	Continuous	15 Minute	AM-4
Additonal Requirements - Siting				AM-1 & AM-4
Additonal Requirements - Measurement				AM-2 & AM-4

## M5 Recording of pollution complaints

M5.1 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.

M5.2 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.

M5.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M5.4 The record must be produced to any authorised officer of the EPA who asks to see them.

## M6 Telephone complaints line

M6.1 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

# Environment Protection Licence



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by the vehicle or mobile plant, unless otherwise specified in the licence.

M6.2 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.

M6.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

## M7 Blasting

M7.1 To determine compliance with limit conditions relating to blasting:

- a) Airblast overpressure and ground vibration levels must be measured and electronically recorded at the McParland Property monitoring station for all production blasts carried out in or on the premises; and
- b) Instrumentation used to measure the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006.

## M8 Other monitoring and recording conditions

M8.1 NOISE MONITORING

M8.2 Noise from the premises must be measured annually via attended noise surveys at potentially affected residences, including Location K Stocker Residence (as described elsewhere in the licence). The noise monitoring should be conducted during the period when it is known that noise propagation from the premises will be at its worst, that is, generally winter conditions.

## 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.

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.

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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.

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

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.

R1.8 The licensee must supply with the Annual Return a report, which provides:

- a) an analysis and interpretation of monitoring results; and
- b) actions to correct identified adverse trends.

Note: In consultation with the licensee the EPA will review at the EPL review stage the necessity to expand, reduce, amend or continue any specific aspects of the monitoring program based on the findings of any submitted monitoring reports.

## R1.9 REPORTING OF ENVIRONMENTAL MONITORING DATA

R1.10 A noise compliance assessment report, detailing the findings of the noise monitoring required by the monitoring conditions of this licence, must be submitted to EPA yearly as part of the Annual Return. The report shall be prepared by a suitably qualified acoustical consultant. The noise compliance assessment must include, but need not be limited to a comparison of actual noise levels from the premises with the noise limits specified in this licence.

R1.11 A dust deposition report, must be submitted to the EPA yearly as part of the Annual Return. This dust deposition report must contain:

- a) A brief summary of the results for all dust deposition monitoring sites.

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b) Tabulated monthly data and rolling annual averages for “insoluble solids” and “ash” for each site for the 12 month period covered by the Annual Return. Where the monthly insoluble solid level is greater than 4 g/m<sup>2</sup>/month an assessment to determine the likely reason for the elevated dust deposition level must be made of:

- i) Weather data (including provision of a wind rose showing wind speed and direction for the period of the monitoring);
- ii) Ash content of the sample;
- iii) Operating conditions such as monthly production or quarry blasts that may have caused the elevated level; and
- iv) Other relevant factors.

The findings of the above assessment must be included in the dust deposition report.

Where results are not available the licensee must provide an explanation for the reasons for such non-availability.

c) For each monitoring site, a graphical presentation(s) must be made of dust deposition results since 2002 which includes:

- i) The rolling 12 month annual average insoluble solids trendline;
- ii) The rolling average insoluble solids trendline since 2002;
- iii) The rolling average ash trendline since 2002;
- iv) The EPA’s impact assessment criteria for deposited dust; and
- v) Annual quarry production rates.

d) Where the rolling average ash trendline shows an upward trend the licensee must provide details of programs and/or works and/or actions that will be put in place to ensure the EPA’s impact assessment criteria for dust is not exceeded.

Note: The EPA’s Annual Impact Assessment Criteria for insoluble solids of 4 g/m<sup>2</sup>/month (12 month rolling average) has been chosen as the standard at which the licensee will do a detailed assessment, if monthly results exceed this figure.

Note: If individual results are also included on the graph it is appropriate to adjust the vertical axis to a lower value, say 6 g/m<sup>2</sup>/month, so that long term trends can be identified.

Note: This condition is included on the licence as air quality dispersion modelling has predicted an increase in deposited dust with increased quarry production. The EPA’s deposited dust impact assessment criteria is expressed in terms of insoluble solids. However due to the nature of the product being quarried any assessment of long-term trends needs to include an assessment of “ash” as dust from the quarrying activities conducted on the premises is mostly inorganic and will predominantly be recorded as “ash”.

R1.12 A Fine Particulate (PM<sub>10</sub>) Report must be submitted to the EPA yearly as part of the Annual Return. This fine particulate report must contain:

- a) A brief summary of all the results for PM<sub>10</sub> conducted over the licensing year;
- b) Graphical presentation of all results for PM<sub>10</sub> conducted over the licensing year as well as the annual average and lines representing the impact assessment criteria for PM<sub>10</sub> detailed in the publication “Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales”;
- c) Where levels exceed the impact assessment criteria, an assessment to determine the likely reason for the elevated reading must be undertaken and included in the report. For individual results this may include:

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- i) Weather data (including an assessment of wind speed and direction for the 24 hours of the test);
- ii) Operating conditions such as blasting that may have coincided with the 24 hour monitoring period; and
- iii) Other relevant factors.

R1.13 A summary of the monitoring of all blasts undertaken during the licence period must be included in the Annual Return. The summary must include, but may not be limited to, the date, time, ground vibration (mm/sec - peak particle velocity), and airblast overpressure of (dB(Lin Peak)).

## R2 Notification of environmental harm

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.

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.

## 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

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EPA within the time specified in the request.

## R4 Other reporting conditions

R4.1 The results of the monitoring required by Condition M7.1 for each blast that exceeds a ground vibration of 5mm/sec (peak particle velocity) or an airblast overpressure of 115 dB(Lin Peak) must be submitted to the EPA within 7 days of the blast.

R4.2 The written record of results submitted to the EPA must include:

- (i) the time and date of each blast;
- (ii) the station(s) at which noise was measured;
- (iii) the ground vibration for each blast;
- (iv) the airblast overpressure for each blast;
- (v) evidence that during each 12 month period, a calibration check had been carried out on each blast monitor to ensure accuracy of the reported data; and
- (vi) the waveform for the ground vibration and overpressure for the blast.

## 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.

### G2 Other general conditions

#### G2.1 Completed Programs

Program	Description	Completed Date
PRP 1 - Undertake a noise assessment	Original Title: Undertake a Noise Assessment and Determine Appropriate Project Specific Noise Levels for the Site. Assessment of ambient noise levels within the residential areas surrounding quarry to determine project specific noise levels for site. Noise to be determined in accordance with the Industrial Noise Policy.. Boral to fully disclose environmental impact of noise from quarry	31-January-2002

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PRP 2 – Dust Control Work Plan Quarry Roads	Original Title: Prepare a Plan of Works for the Control of Dust from Quarry Roads. Upgrade controls for dust emissions from quarry roads so that when implented quarry roads will not be a source of vehicle generated dust	01-March-2002
PRP 3 – Stormwater Pollution Control Work	Original Title: Prepare a Plan of Works for the Control of Stormwater Pollution from the Quarry. Develop a system of controls that captures all of the contaminated stormwater run off for reuse in dust suppression and/or treatment and discharge to Rocklow Creek.	03-May-2002
PRP 4 – Dust Control Work Plan - High Risk Ops	Original Title: Prepare a Plan of Work for the Control of Dust from the Screenhouse and Bunkers and the Secondary Crusher and Related Transfer Points. Ensure all dust generated within the screenhouse and bunker systems, and the area of the secondary crusher and related transfer points is suppressed.	01-June-2002
PRP 5 – Fixed Water Spray Installation	Original Title: Install Fixed Water Sprays on the roadway between the Site Offices/Weighbridge and the Crushing and Screening Plant Control Room. Installation of sprinkler system to suppress dust from quarry roads. Less dust from quarry road transport into sales area	30-September-2002
PRP 6 – Installation of Dust Controls	Original Title: Install the Following Dust Controls; Clad the Southern Side of the Quarry Product Bunkers; Install Fabric Filter Dust Controls at the tail and head of Conveyor 4 and; Install Fabric Filter Dust Collector at the discharge to Crushers CR6 and CR7. Dust control from screenhouse and other buildings. Prevention of wind and minimise emissions of dust	30-September-2002
PRP 7 – Air Quality Impact Assessment	Original Title: Undertake Air Quality Impact Assessment in Relation to Proposed Increased Extraction Rates. Air pollution assessment for the increased production proposal. Determine impacts to assist planning decisions	31-March-2004
PRP 8 – Emergency Contingency Management	Original Title: Develop an Emergency Contingency Management Plan. Emergency Contingency Management. Document and implement measures to minimise the environmental impacts of any emergency situations that could arise as a result of the operation of the Dunmore Quarry.	18-May-2005
PRP 9 – Dust Control Effectiveness Program	Original Title: Develop a Dust Control Effectiveness Program. Investigate the effectiveness of dust mitigation controls in relation to the production increase at the premises	01-December-2005
PRP 10 Construct Stormwater Pollution Control Dam	Original Title - Construct and commission stormwater pollution control dam. To capture and treat polluted runoff waters from storm events of less than and including a 1:10 year, 24 hours duration, average recurrence interval	26-June-2009

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PRP 11 - Integrated Water Management Program	Original Title: Integrated Water Management Program. To address the external annual water demand for the operation of the premises, which has been estimated at an upper limit of 117 ML/year.	18-November-2005
PRP 12 – Water Control Installation	Original Title: Install Works to achieve better water pollution control. To implement the recommended works detailed in the report titled "Dunmore Quarry - response to water management issues"	13-July-2006
PRP 13 – Install a Rainfall Station	PRP 13 - Install a rainfall station. Install and maintain a rainfall monitoring device which will assist in determining compliance with the conditions of this licence	18-August-2005
PRP 15 - Nearfield Noise Monitoring Investigations	Original Title: Conduct Nearfield Noise Monitoring Investigations. To determine near field trigger levels which would assist in demonstrating compliance and verify the effectiveness of noise mitigation works	18-May-2005
PRP 16 - Fines Stockpile Management Plan	Original Title: Develop a Fines Stockpile Management Plan. Implement measures for the management of the minus 4mm stockpiles with the aim to stabilize the surface of the stockpiles to minimize wind blown dust emissions and to minimize erosion due to stormwater run off	01-March-2005
PRP 17 - Noise Compliance Investigation Program	PRP 17 - Noise Compliance Investigation Program. Identify a range of options to facilitate compliance with the EPL noise limits through physical attenuation measures and/or operational/management processes.	01-July-2006
PRP 18: Clad Secondary Crusher	Original Title: Enclose Secondary Crusher to Reduce Noise. The licensee has advised that cladding the Secondary Crusher will reduce noise at the source by about 12 dBA and this will allow noise limit compliance at the nearest noise receptor.	01-July-2006
PRP 19: Enclose Screen 1 and Fill In gaps	Original Title: Enclose Screen 1 and enclose gaps between the Primary Crusher and the Secondary Crusher. Reduce noise levels so as to comply with licence noise limits.	01-October-2006
PRP 20 Tertiary Screenhouse dust emissions	PRP 20: Improved Dust Controls for the Tertiary Screenhouse. Investigations and then works into reducing dust emissions from the Tertiary Screenhouse. Reduced dust emissions from the premises.	30-June-2010

## 8 Special Conditions

### E1 Biodiversity Conservation Offset

- E1.1 The Licensee will conserve, maintain, enhance and ensure long term security of the vegetation offset by a means agreed to by the EPA.

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Note: The vegetation offset is detailed in correspondence to the Department of Planning and copied to the EPA, dated 22 September 2008 (refer to A4.2).

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## 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

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<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> .

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<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 Nigel Sargent

Environment Protection Authority

(By Delegation)

Date of this edition: 14-December-1999

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## End Notes

- 1 Licence varied by notice V/M upgrade, issued on 08-Jul-2000, which came into effect on 08-Jul-2000.
- 2 Licence transferred through application 140020, approved on 27-Sep-2000, which came into effect on 31-Aug-1999.
- 3 Licence varied by notice 9418, issued on 09-Mar-2000, which came into effect on 30-Mar-2000.
- 4 Licence varied by notice 1012272, issued on 19-Oct-2001, which came into effect on 13-Nov-2001.
- 5 Licence varied by notice 1013531, issued on 14-Dec-2001, which came into effect on 08-Jan-2002.
- 6 Licence varied by notice 1016381, issued on 12-Aug-2002, which came into effect on 06-Sep-2002.
- 7 Licence varied by notice 1021119, issued on 11-Oct-2002, which came into effect on 05-Nov-2002.
- 8 Licence varied by notice 1026479, issued on 08-Jul-2003, which came into effect on 08-Jul-2003.
- 9 Licence varied by notice 1035077, issued on 17-Nov-2004, which came into effect on 18-Nov-2004.
- 10 Licence varied by notice 1056152, issued on 15-Feb-2006, which came into effect on 12-Mar-2006.
- 11 Licence varied by change to DEC Region allocation, issued on 16-Mar-2003, which came into effect on 16-Mar-2003.
- 12 Licence varied by notice 1057794, issued on 12-Apr-2006, which came into effect on 12-Apr-2006.
- 13 Licence varied by notice 1061796, issued on 23-Jun-2006, which came into effect on 23-Jun-2006.
- 14 Licence varied by notice 1065559, issued on 29-Sep-2006, which came into effect on 29-Sep-2006.
- 15 Licence varied by notice 1073479, issued on 17-May-2007, which came into effect on 17-May-2007.
- 16 Licence varied by notice 1081122, issued on 16-May-2008, which came into effect on 16-May-2008.
- 17 Licence varied by notice 1088505, issued on 14-Jul-2008, which came into effect on 14-Jul-2008.
- 18 Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>

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|----|---|
| 19 | Licence varied by notice 1102292, issued on 12-Aug-2009, which came into effect on 12-Aug-2009. |
| 20 | Licence varied by notice 1106096, issued on 14-Sep-2009, which came into effect on 14-Sep-2009. |
| 21 | Licence varied by notice 1502449 issued on 03-Nov-2011  |
| 22 | Licence varied by notice 1502884 issued on 15-May-2012  |
| 23 | Licence varied by notice 1506167 issued on 17-May-2012  |
| 24 | Licence varied by notice 1512744 issued on 27-Mar-2013  |
| 25 | Licence varied by notice 1518429 issued on 22-Nov-2013  |
| 26 | Licence varied by notice 1538680 issued on 26-Sep-2016  |