

# **Environmental Management Strategy**

for the

## **New Berrima Clay/Shale Quarry**

PA08\_0212

*Prepared by:*



**R.W. CORKERY & CO. PTY. LIMITED**

September 2018

**Approved by**  
the Secretary's nominee, Megan Dawson,  
on 28 September 2018

# Environmental Management Strategy

for the

## New Berrima Clay/Shale Quarry

PA08\_0212

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## **COMMONLY USED ACRONYMS**

AHD	Australian Height Datum
AS	Australian Standard
CCC	Community Consultative Committee
DPE	Department of Planning and Environment
DRG	Division of Resources and Geoscience
EMS	Environmental Management Strategy
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	Environment Protection Authority
EPL	Environment Protection Licence
NATA	National Association of Testing Authorities
OEH	Office of Environment and Heritage
PA	Project Approval
RWC	R.W. Corkery & Co. Pty Limited

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## 1. INTRODUCTION

This *Environmental Management Strategy* (EMS) has been prepared by R W Corkery & Co Pty Limited on behalf of The Austral Brick Company Pty Ltd (Austral) for the New Berrima Clay/Shale Quarry (the Quarry). The Quarry is located within the “Mandurama” property approximately 1.5km east of New Berrima in the Southern Highlands of NSW (**Figure 1**). For the purposes of this document, the area of the approved quarry is referred to as “the Quarry Site”.

This EMS represents the second revision of the EMS and has been prepared in satisfaction of Project Approval 08\_0212 *PA Condition 5(1)*<sup>1</sup>. This EMS forms part of the Quarry’s overall Environmental Management System and is supported by the following six management plans which form part of and accompany the EMS.

- Air Quality Management Plan
- Transport Management Plan.
- Noise Management Plan.
- Water Management Plan.
- Landscape Management Plan.
- Aboriginal Cultural Heritage Management Plan.

## 2. APPROVED ACTIVITIES AND STAGED OPERATIONS

### 2.1 APPROVED ACTIVITIES

The principal activities approved at the Quarry (**Figure 2**) comprise the following.

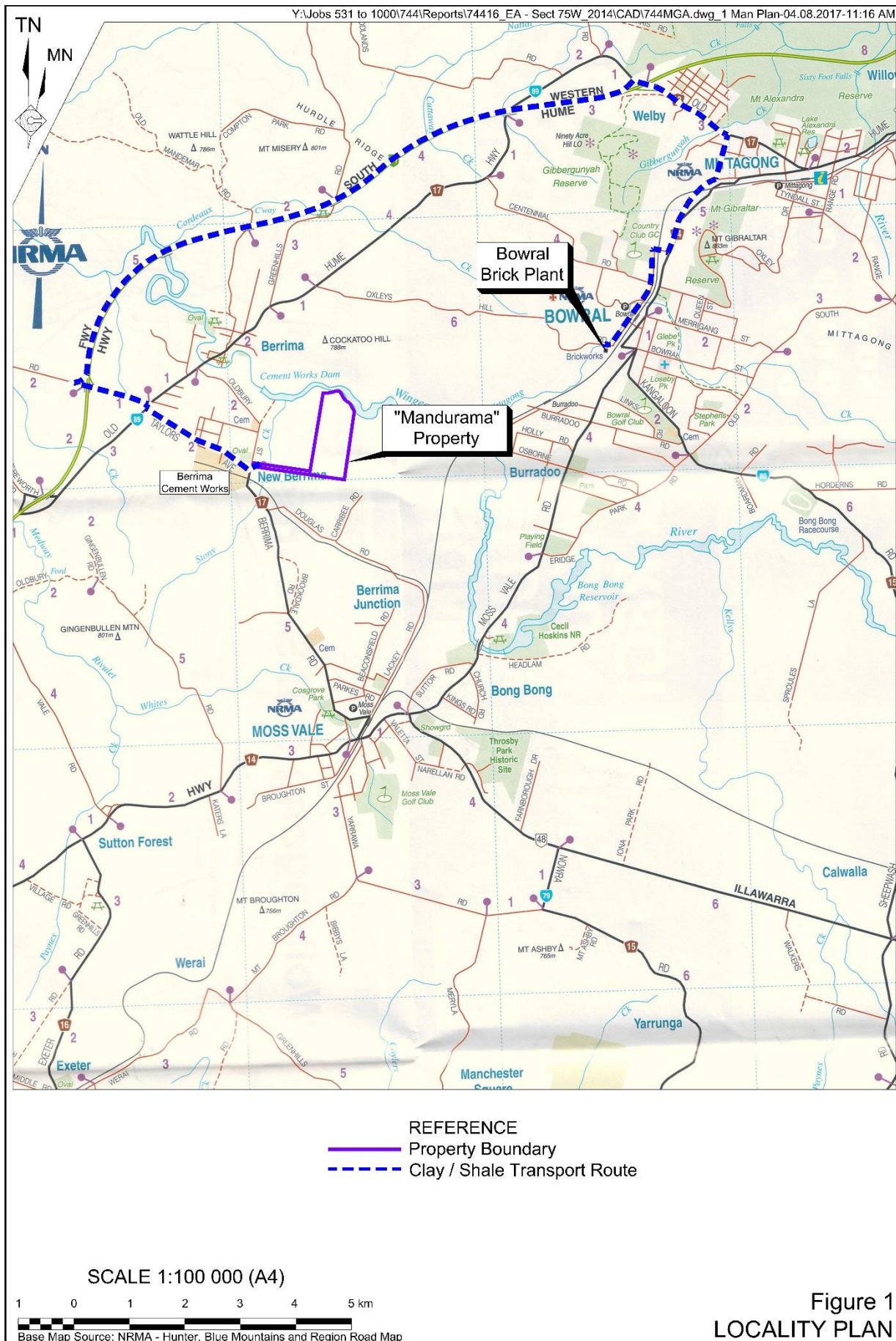
- Construction of visibility barriers to provide visual screening for the quarry operations.
- Extraction and stockpiling of clay/shale from the extraction area using standard ripping, pushing and loading techniques.
- Transportation of up to 150 000t per year of quarry products via Berrima Road using articulated and rigid trucks not exceeding 19m in length.

The relevant limitations upon the approved activities nominated in Conditions within PA08\_0212 are as follows.

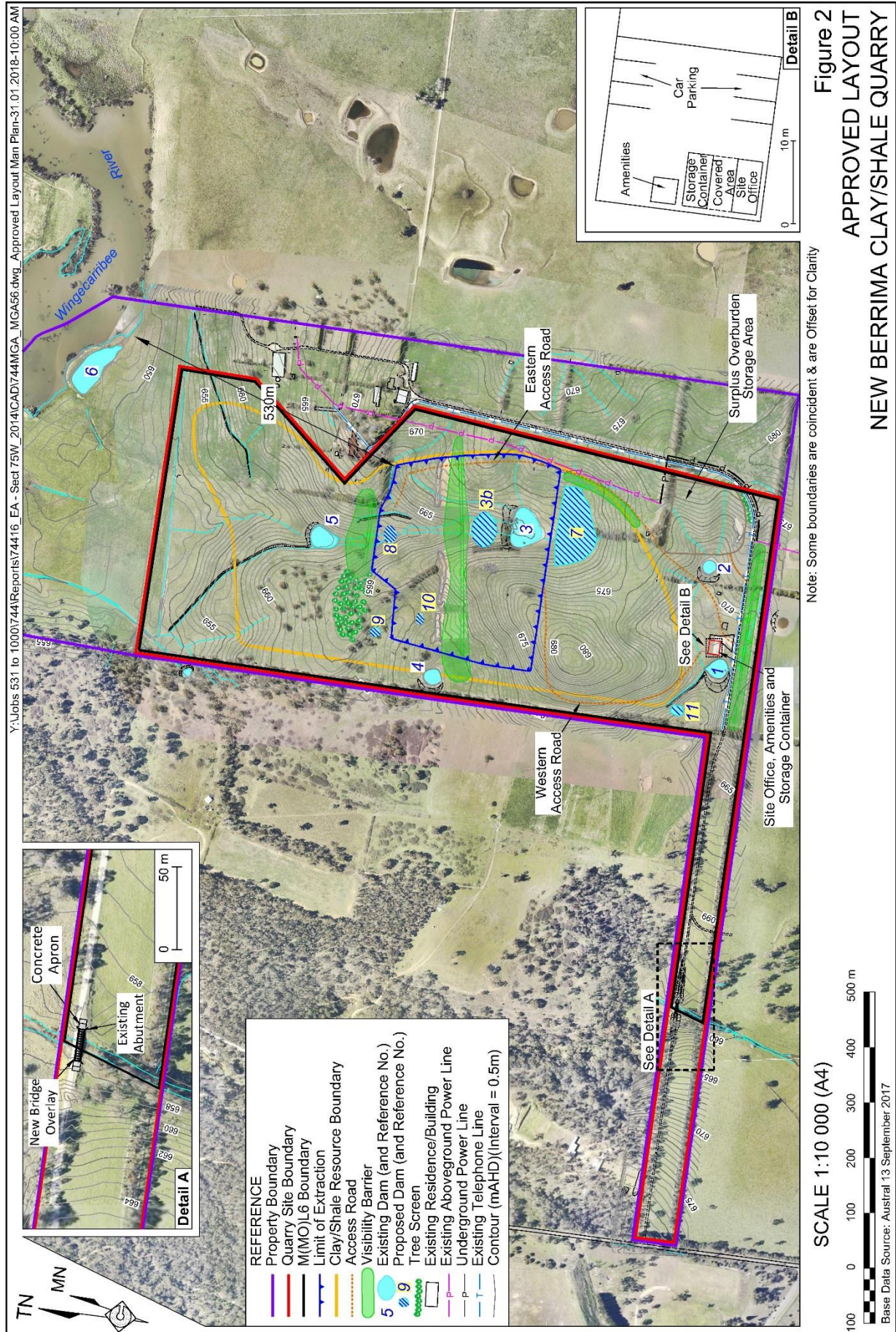
- “The Proponent must not carry out any development in the extraction area below a level of 640m AHD” *PA Condition 2(6)*.
- “The Proponent must not extract more than 150 000 tonnes of extractive materials from the site in any calendar year” *PA Condition 2(7)*.
- “The Proponent must not transport more than:
  - a) 150,000 tonnes of product from the site in any calendar year;
  - b) 68 laden trucks from the site in a day; and
  - c) 8 laden trucks from the site in an hour.

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<sup>1</sup> All conditions in Project Approval 08\_0212 are referred to as the schedule number followed by the condition number in brackets, e.g. *PA Condition 5(1)*.







The approved quarry life is until 31 December 2045 and the approved hours of operation are outlined in **Table 1**.

**Table 1**  
**Hours of Operation**

Day	Construction & Extraction Operations	Clay/Shale Transportation
Monday – Friday	7:00am to 5:00pm	7:00am to 4:00pm
Saturday	8:00am to 1:00pm	8:00am to 1:00pm
Sundays and Public Holidays	None	None

## 2.2 STAGED OPERATIONS

**Figure 3** displays the staging sequence throughout the life of the Quarry. The southern section would be extracted in four stages, namely Stages 1 to 4. Once extraction ceases in the southern section, extraction would commence in the northern section with extraction undertaken in three stages, namely Stages 5 to 7. It is noted that, whilst the stages will progress sequentially, the actual timing for each stage will be largely dependent on the raw material requirements at the Bowral Brick Plant.

## 3. STRATEGIC FRAMEWORK

This EMS forms part of the integrated Environmental Management System that Austral adopts to manage all of its quarries and brick plants. The EMS addresses the principal strategies to be adopted by Austral, including the Austral's emphasis upon planning, compliance management and monitoring, follow-up actions and information dissemination processes. Austral's approach to each of the key elements of its strategic framework are as follows.

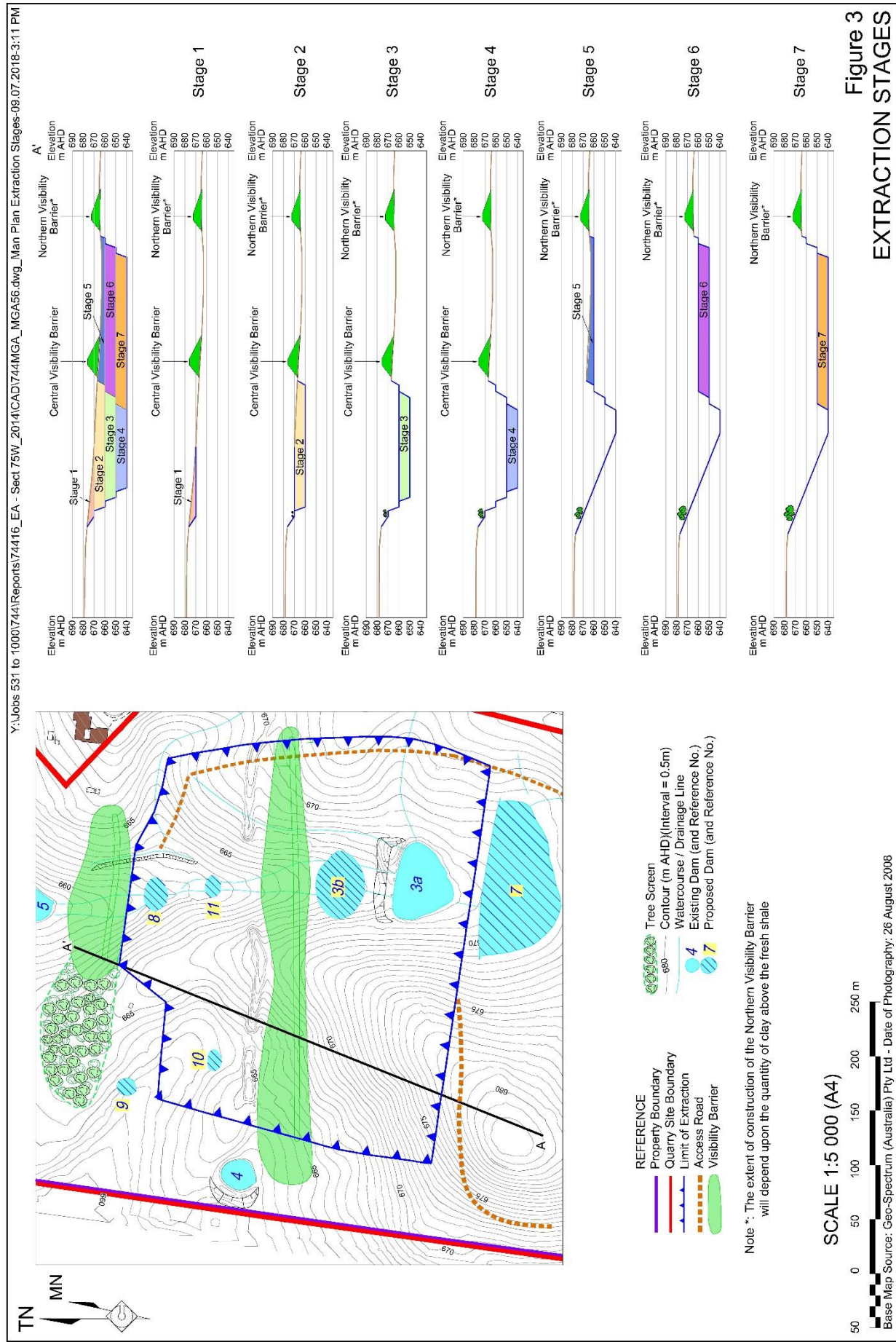
### Planning

Austral undertakes a range of planning tasks to ensure that all quarry-related tasks are undertaken in the correct order and manner and at the optimum time to minimise environmental impacts and, importantly, contain operational costs. Central to the planning element of the strategic framework is the development of a professionally designed extraction area in which benches and internal roads are positioned in optimum locations that satisfy practical/environmental considerations. Austral's experience with its other quarry operations throughout NSW has enabled the approach to the planning and operation of the New Berrima Clay/Shale Quarry to be realistic and achievable.

### Compliance Management and Checking

Austral will operate the Quarry with a range of routine checks, including a monthly checklist that identifies compliance with relevant conditional requirements, as applicable to that month. In addition to the Company's internal auditing and checks, Austral is required through *PA Condition 5(9)* to commission independent audits of the project approval and related approvals within 12 months of commencement and then at 3 yearly intervals. The initial audit was undertaken during August 2017. Therefore, future independent audits will be commenced in August 2020, 2023, etc.





Austral will also continue to implement a range of environmental monitoring programs to demonstrate its compliance with criteria nominated in PA08\_0212 and its Environment Protection Licence (EPL). Details of all monitoring undertaken by Austral are set out in the supporting management plans referred to in Section 1.

### **Response to Incidents and Complaints**

Austral recognises the benefits of quickly responding to both incidents and complaints. Consequently, Austral has in place a response process to ensure any complaint is swiftly and thoroughly investigated and followed up to ensure the issue that prompted the complaint is appropriately managed.

### **Consultation and Information Dissemination**

Austral consulted with a range of adjoining and nearby landowners and occupiers during the preparation of the 2010 Environmental Assessment and the modifications of PA08\_0212 to discuss the Company's plans for the proposed quarry. It is recognised the Quarry will be developed and operate sufficiently distant from the surrounding residences so as not to cause adverse environmental impacts. Notwithstanding this, Austral will maintain a proactive approach with these landowners and occupiers to ensure the predicted low-level impact is achieved.

## **4. LEGAL AND OTHER REQUIREMENTS**

### **4.1 PROJECT APPROVAL 08\_0212**

Austral was granted Project Approval (PA) 08\_0212 by the Department of Planning and Infrastructure on 7 July 2012 pursuant to Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Prior to commencing extraction, an application was made to modify PA 08\_0212, to relocate the area of extraction, allowing recovery of a higher quality clay/shale resource, and removal of less overburden. PA 08\_0212 Modification 1 was granted on 15 December 2015. A second application to modify PA 08\_0212 was made for the construction of a new bridge over Stony Creek, the realignment of western access road, the repositioning of the site office, amenities and storage container, and the installation of underground power and removal of a section of overhead power line. PA 08\_0212 Modification 2 was granted on 06 July 2017. PA 08\_0212 includes the conditional requirements that Austral needs to comply with and sets out the specific requirements of this EMS.

This EMS has been prepared in accordance with PA 08\_0212 and adopts the relevant elements of the *AS/NZS ISO 14001 Environmental Management System 2004* guidelines. Conditional requirements identified in PA 08\_0212 that are relevant to this EMS are reproduced in **Table 2** with a reference provided to the Section(s) of this document where each conditional requirement is addressed.

There are no commitments within the Statement of Commitments in PA 08\_0212 that need to be addressed in this document. All commitments are, however, addressed where appropriate in the respective accompanying management plans.

**Table 2**  
**Project Approval Conditions Relating to Environmental Management Strategy**

Page 1 of 4

Cond No.	Requirement	Plan Section
<b>ENVIRONMENTAL MANAGEMENT STRATEGY</b>		
5(1)	<p>The Proponent must prepare and [implement] an Environmental Management Strategy for the project to the satisfaction of the Secretary. The strategy must:</p> <ul style="list-style-type: none"> <li>a) be submitted for approval to the Secretary prior to the commencement of construction activities;</li> <li>b) provide the strategic framework for environmental management of the project;</li> <li>c) identify the statutory approvals that apply to the project;</li> <li>d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;</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 project;</li> <li>- receive, handle, respond to, and record complaints;</li> <li>- resolve any disputes that may arise during the course of the project;</li> <li>- respond to any non-compliance;</li> <li>- respond to emergencies; and</li> </ul> </li> <li>f) include: <ul style="list-style-type: none"> <li>- copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and</li> <li>- a clear plan depicting all the monitoring to be carried out in relation to the project.</li> </ul> </li> </ul>	<p>Document Control</p> <p>Section 3</p> <p>Section 4</p> <p>Section 14</p> <p>Section 11</p> <p>Section 9</p> <p>Section 9</p> <p>Section 8</p> <p>Section 10</p> <p>Section 1</p> <p>Section 5</p>
5(2)	<p>The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&amp;A Act or EP&amp;A Regulation.</p> <p>Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must, at the earliest opportunity:</p> <ul style="list-style-type: none"> <li>a) take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur;</li> <li>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</li> <li>c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.</li> </ul>	<p>Sections 6, 7 and 8</p>
5(3)	<p>The Proponent must ensure that the Management Plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <ul style="list-style-type: none"> <li>a) detailed baseline data;</li> <li>b) a description of: <ul style="list-style-type: none"> <li>- the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>- any relevant limits or performance measures/criteria; and</li> <li>- the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;</li> </ul> </li> </ul>	<p>Not Applicable</p> <p>Section 4</p> <p>NA</p> <p>Section 5</p>

**Table 2 (Cont'd)**  
**Project Approval Conditions Relating to Environmental Management Strategy**

Page 2 of 4

Cond No.	Requirement	Plan Section
5(3) (cont'd)	<p>c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> <li>- impacts and environmental performance of the project; and</li> <li>- effectiveness of any management measures (see (c) above);</li> </ul> <p>e) a contingency plan to manage any unpredicted impacts and their consequences;</p> <p>f) a program to investigate and implement ways to improve the environmental performance of the project over time;</p> <p>g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> <li>- incidents;</li> <li>- complaints;</li> <li>- non-compliances with statutory requirements; and</li> <li>- exceedances of the impact assessment criteria and/or performance criteria;</li> </ul> <p>h) a protocol for periodic review of the plan.</p> <p><i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>	<p>Sections 3, 6 and 12</p> <p>Section 6</p> <p>Section 7</p> <p>Section 6</p> <p>Sections 8 and 9</p> <p>Section 15</p>
5(4)	<p>By the end of December 2016, and annually thereafter, the Proponent must review the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <p>a) describe the development (including rehabilitation) that was carried out in the previous calendar year, and the works that are proposed to be carried out over the next year;</p> <p>b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against:</p> <ul style="list-style-type: none"> <li>- the relevant statutory requirements, limits or performance measures/criteria;</li> <li>- the monitoring results of previous years; and</li> <li>- the relevant predictions in the documents listed in condition 2 of Schedule 2;</li> </ul> <p>c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>d) identify any trends in the monitoring data over the life of the project;</p> <p>e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</p> <p>f) describe what measures will be implemented over the next year to improve the environmental performance of the project.</p>	Section 13
5(5)	<p>Within 3 months of the submission of an:</p> <p>a) annual review under condition 4 above;</p> <p>b) incident report under condition 7 below;</p> <p>c) audit report under condition 9 below; and</p> <p>d) any modifications to this approval, the Proponent must review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary.</p> <p>Within 4 weeks of conducting any such review, the Proponent must advise the Secretary of the outcomes of the review, and provide and revised documents to the Secretary for review and approval.</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 project.</i></p>	Section 15



**Table 2 (Cont'd)**  
**Project Approval Conditions Relating to Environmental Management Strategy**

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Cond No.	Requirement	Plan Section
5(6)	<p>The Proponent must establish and operate a CCC for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Department's <i>Community Consultative Committee (CCC) Guidelines for State Significant Projects</i> (November 2016, or its latest version), and be operating prior to any development being carried out on site under this approval.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.</li> <li>In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.</li> </ul>	Section 11
<b>Reporting</b>		
5(7)	The Proponent must notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent must notify the Secretary and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	Section 8
5(8)	The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.	Section 13
<b>Independent Environmental Audit</b>		
5(9)	<p>Within a year of the commencement of development on site under this approval, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission, commence and pay the full cost of an Independent Environmental Audit of the project. This audit must:</p> <ol style="list-style-type: none"> <li>be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;</li> <li>include consultation with the relevant agencies;</li> <li>assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL and/or Water Licence (including any assessment, plan or program required under these approvals);</li> <li>review the adequacy of any approved strategy, plan or program required under these approvals; and</li> <li>recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals; and</li> <li>be conducted and reported to the satisfaction of the Secretary.</li> </ol> <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>	Section 6
5(9A)	Within 12 weeks of commencing each audit, unless the Secretary agrees otherwise, the Proponent must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of any measures proposed to address the recommendations.	Section 6
5(10)	Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.	Section 6

**Table 2 (Cont'd)**  
**Project Approval Conditions Relating to Environmental Management Strategy**

Page 4 of 4

Cond No.	Requirement	Plan Section
<b>Access to Information</b>		
5(11)	<p>Following the commencement of development on site under this approval, the Proponent 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 2;</li> <li>- current statutory approvals for the project;</li> <li>- approved strategies, plans or programs;</li> <li>- a summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;</li> <li>- a complaints register, updated on a quarterly basis;</li> <li>- minutes of CCC meetings;</li> <li>- copies of any annual reviews (over the last 5 years);</li> <li>- any independent environmental audit, and the Proponent's response to the recommendations in any audit; and</li> <li>- any other matter required by the Secretary; and</li> </ul> <p>b) keep this information up-to-date, to the satisfaction of the Secretary.</p>	Section 13

## 4.2 ENVIRONMENT PROTECTION LICENCE

Austral operates the Quarry with Environment Protection Licence (EPL) 20377 granted by the Environment Protection Authority (EPA) on 1 August 2016. Whilst EPL 20377 does not include specific conditions relating to this EMS, each of the management plans relating to air quality, noise and water provide a summary of and reflect the relevant requirements of EPL 20377.

## 4.3 MINING LEASE

Austral was granted a Mining (Mineral Owners) Lease (M(MO)L) 6 for the New Berrima Quarry on 27 June 2017. M(MO)L 6 does not include any specific requirements relating to the EMS or management plans. However, relevant rehabilitation aspects required to be included in the Mining Operations Plan are also reflected within the Landscape Management Plan.

## 4.4 KEY LEGISLATION

Key legislation that is potentially relevant to guide operations and management of the Quarry includes the following.

- *Biodiversity Conservation Act 2016*
- *Commonwealth National Greenhouse and Energy Reporting Act 2007*
- *Contaminated Land Management Act 1997.*
- *Dangerous Goods (Road & Rail Transport) Act 2008.*

- *Environmental Planning and Assessment Act 1979.*
- *Local Government Act 1993.*
- *Mining Act 1992.*
- *National Parks and Wildlife Act 1974.*
- *Protection of the Environment Administration Act 1991.*
- *Protection of the Environment Operations Act 1997.*
- *Roads Act 1993.*
- *Soil Conservation Act 1938.*
- *Water Act 1912.*
- *Water Management Act 2000.*
- *Work, Health and Safety Act 2011.*

## 4.5 STANDARDS

The following standards are, or are potentially, of relevance to the operation of the Quarry. AS refers to an “Australian Standard, NZS refers to “New Zealand Standard” and ISO refers to the “International Standards Organisation”.

- AS 3580.1.1 - 2016 *Methods for Sampling and Analysis of Ambient Air – Guide to Siting Air Monitoring Equipment.*
- AS/NZS 3580.14 - 2014 *Methods for sampling and analysis of ambient air Meteorological monitoring for ambient air quality monitoring applications*
- AS/NZS 3580.10.1 - 2016 *Methods for Sampling and Analysis of Ambient Air Determination of Particulate Matter – Deposited Matter – Gravimetric Method.*
- AS1055.1 - 1997 *Acoustics – Description and Measurement of Environmental Noise – General Procedures.*
- AS 3780 - 2008 *The storage and handling of corrosive substances.*
- AS 1940 - 2017 *The Storage and Handling of Flammable and Combustible Liquids.*
- AS 1742 - *Manual of Uniform Traffic Control Devices.*
- AS IEC 61672 - 2004 *Electroacoustics – Sound Level Meters.*
- ISO 14001 - 2016 *Environmental Management Systems – Requirements with guidance for use.*
- ISO 19011 - 2011 *Guidelines for Auditing Management Systems.*

## 4.6 GUIDELINES

The following guidelines are, or are potentially, of relevance to the Quarry's Environmental Management System.

- *Community Consultative Committee Guidelines* published by Department of Planning & Environment in 2016.
- *Managing Urban Stormwater: Soils and Construction* published by Landcom in 2004.
- *Managing Urban Stormwater: Soils and Construction – Volume 2C – Unsealed Roads* published by Department of Environment and Climate Change in 2008.
- *Managing Urban Stormwater: Soils and Construction – Volume 2E – Mines and Quarries* published by Department of Environment and Climate Change in 2008.
- *National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting* published by ANZECC/ARMCANZ in 2000.
- *NSW Environment Protection Authority (EPA) Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* published by EPA in 2007.
- *NSW EPA Approved Methods and Guidance for Modelling in Assessment of Air Pollutants in NSW* published by Environment Protection Authority in 2016.
- EPA 454/R-99-005 *Meteorological monitoring guidance for regulatory modelling applications* published by United States EPA in 2000.
- *NSW Road Noise Policy* published by EPA in 2011.
- *NSW Industrial Noise Policy* published by EPA in 2000.
- *Waste Classification Guidelines* published by EPA in 2016.

## 5. MONITORING

The Quarry monitoring strategy has been outlined in detail in the respective Management Plans, to adequately address and outline the monitoring locations, timing and criteria for each parameter defined in PA 08\_0212. **Table 3** presents a consolidated summary of the Quarry's environmental monitoring program. Monitoring locations are displayed on **Figure 4**.

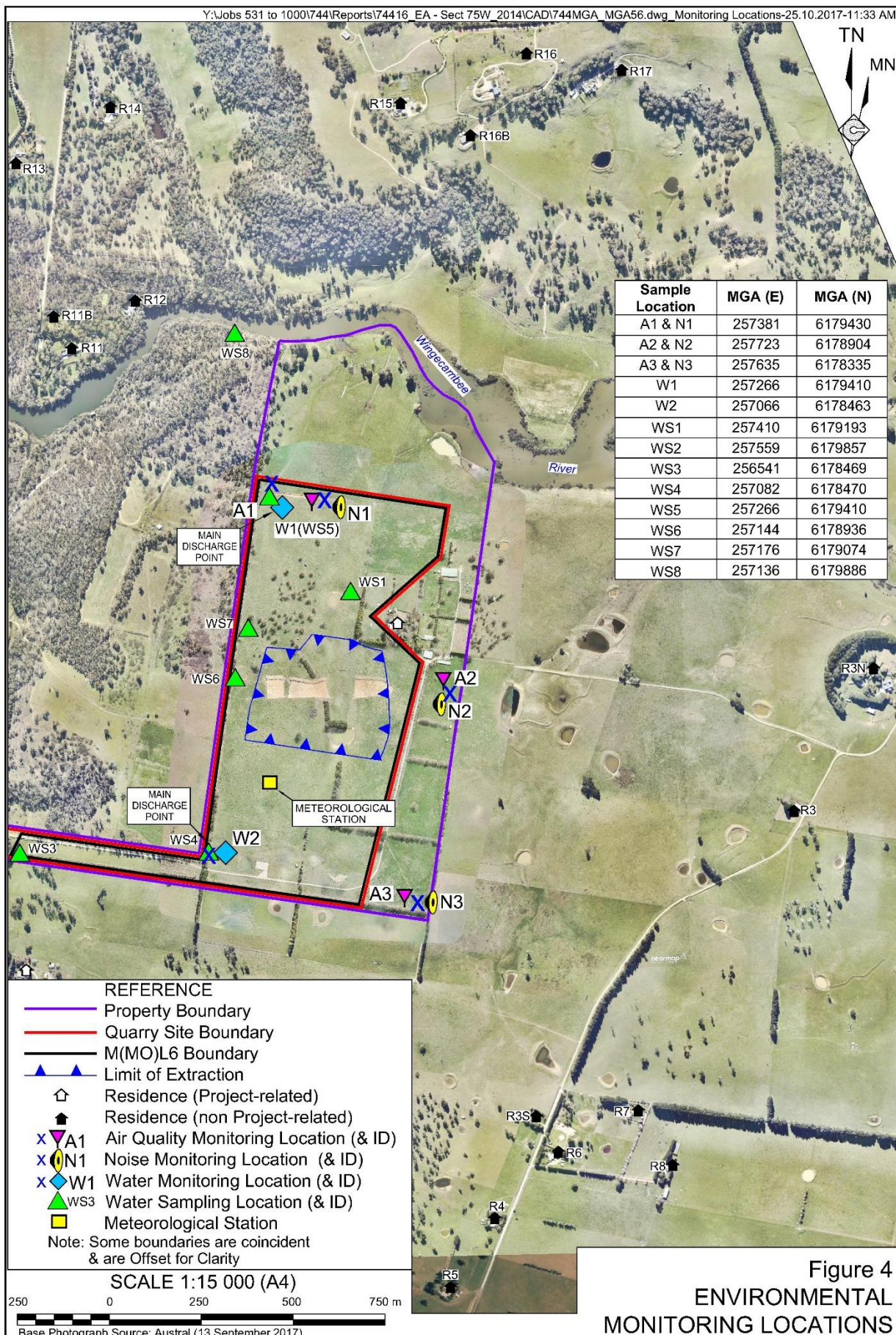
## 6. EVALUATION OF COMPLIANCE

Austral will evaluate compliance in accordance with procedures detailed in each of the Management Plans and the requirements of relevant approval conditions. This will principally be achieved through the completion of monthly checklists which identify compliance with relevant conditional and management plan requirements, as applicable to that month.

**Table 3**  
**Consolidated Summary of the Environmental Monitoring Program**

Monitoring Requirement	Monitoring Location (See Figure 4)	Frequency	Criteria	Timing	Characterisation / Quantification	Record of Information
<b>Noise Management Plan</b>						
Attended Noise Monitoring	Locations N1, N2, N3	Quarterly until clay/shale is despatched then annually	38dB(A) at all non-Quarry related receivers <i>PA Condition 3(4)</i>	15 minute measurement period during approved operating hours.	L <sub>Amax</sub> L <sub>A1</sub> L <sub>A10</sub> L <sub>A50</sub> L <sub>A90</sub> L <sub>Amin</sub> L <sub>Aeq</sub>	Operator's Name. Location of Monitoring. Recording Intervals (date and time). Meteorological conditions. Statistical noise level descriptor with notes identifying principal noise sources. Instrument make, model, serial number and calibration details. A description of activities occurring within the Quarry Site during the period of measurement. Relevant mobile equipment, operating shift logs and location.
<b>Air Quality Management Plan</b>						
Deposited dust	Locations A1, A2, A3	Monthly Sampling	Maximum Increase 2g/m <sup>2</sup> /month Maximum Total 4g/m <sup>2</sup> /month (Annual average)	Ongoing	Monthly deposited dust levels	Deposited dust levels, including insoluble solids, ash content and combustible material.
Meteorology	On-site Meteorological Station	Continuous	-	Ongoing	-	Temperature, Rainfall Wind speed, direction and sigma theta Solar radiation Barometric pressure
Greenhouse Gas Emissions	All Quarry emissions	Reported Annually	-	-	-	Monthly diesel usage.
<b>Water Management Plan</b>						
Surface Water Monitoring	W1, W2, W3, W4, W5, W6, W7, W8	Monthly Sampling	Total Suspended Solids - 50mg/L. pH – between 6.5 and 8.5. Oil & grease – none visible	Ongoing	Total Suspended Solids, pH and oil & grease	Sampler's name Date and time of sampling Location of sampling Water quality parameter and values Calibration of analysis instruments





Austral will also complete a compliance review as part of the *Annual Review* as required under *PA Condition 5(4)* which will also include the following information.

- Any non-compliances with statutory requirements during the reporting period.
- A summary of any corrective actions and/or mitigation and management activities carried out during the reporting period.
- A summary of monitoring carried out during the reporting period.
- A summary of proposed activities to occur over the following reporting period.

*PA Condition 5(9)* also requires that Austral commissions an independent audit of the Quarry:

- every three years after the initial independent audit (first commissioned in August 2017).

A copy of the audit report, including a response to recommendations and a timetable for the implementation, will be submitted to the Secretary within 12 weeks of commissioning the audit. The results of the external independent environmental audit will be placed on Austral's website and a summary will be included in the relevant *Annual Review*.

## 7. CORRECTIVE AND PREVENTATIVE ACTIONS

Where an exceedance of relevant criteria or breach of condition(s) is identified, the Compliance & Environmental Coordinator, or their delegate, will first notify relevant agencies in accordance with Section 8 and then identify appropriate corrective and preventative actions (in the event the exceedance is Quarry-related) in accordance with the procedures identified in the relevant Management Plan.

Corrective and/or preventative actions will be assigned to relevant Company personnel. Actions will be delegated by the Compliance & Environmental Coordinator or the Raw Materials & Mining Manager or their representative. Outstanding actions will be monitored for their effectiveness. In the event an exceedance of any relevant criteria or breach of condition(s) is identified, the incident will be investigated to determine the likely cause. The investigation will seek to determine:

- if the incident is related to the Quarry's operations;
- the primary cause(s) of the incident;
- any contributing factors which led to the exceedance;
- whether appropriate controls were implemented to prevent the exceedance; and
- corrective and preventative measures that may be implemented to prevent a recurrence of the exceedance.

A copy of the investigation report and regular updates on the status of the identified corrective and/or preventative actions will be provided to the relevant government agencies (as detailed in Section 8) and if required, any complainant. In addition, a copy of all reports will be summarised in the relevant *Annual Review*.



## 8. INCIDENT REPORTING

In the event that an exceedance of an environmental criterion or condition has occurred, the incident will be reported to DPE and other relevant government agencies at the earliest opportunity and not more than 24 hours after identifying the exceedance or details of the conditional non-compliance.

Within 7 days of the date of the incident / identifying the exceedance, Austral will submit a written report with regular updates on the status of the additional mitigation actions to the DPE, EPA and, where relevant, the complainant, in accordance with the procedures identified in Section 9. In addition, a summary of all reports will be included in the *Annual Review*.

## 9. COMPLAINTS HANDLING AND DISPUTE RESOLUTION

### 9.1 COMPLAINTS HANDLING

In order to receive, record and respond to any complaints in a timely manner, Austral has established the following mechanism for receiving complaints.

- Directly via the 24-hour, 7 days per week Community Information Line (1800 635 620) or via the Bowral Brick Plant phone line (02 4862 1062).
- Directly via a dedicated email address *compliance-ab@australbricks.com.au* which is advertised in a similar manner to the Community Information Line.
- Indirectly via a local or state government agency.

Austral proposes to raise any complaints received at relevant meetings of the Community Consultation Committee.

All complaints will be recorded using a pro forma complaints book developed for all sites operated by Austral Bricks throughout NSW, registered in a database and responded to within three business days from the receipt the complaint. The following information will be recorded (where it can be reasonably obtained) in the database.

- The date/time the complaint was made.
- The name of the person receiving the complaint (and method of receipt, e.g. phone, text, email).
- Complainant's name.
- Complainant's telephone number and/or email address.
- Nature of the complaint.
- Action taken in relation to the complaint including any follow-up contact.
- If no action, the reason why.
- Satisfaction of the complainant.



The nature of the response will depend on the nature and source of complaint but will include one or more of the following actions.

1. The complaint will be reviewed by the Compliance & Environmental Coordinator or his/her delegate to determine the nature, date and time of the exceedance or non-compliance.
2. Liaison with the complainant to ascertain all details and to identify the nature and source of the complaint and provide supplementary details for the log.
3. As appropriate, review existing monitoring data and the initiation of additional monitoring or other investigations to verify or otherwise the exceedance or non-compliance with approval or licence condition(s).
4. If there has been an exceedance of relevant criteria, DPE and other relevant government agencies will be notified in accordance with the incident reporting procedure (see Section 8).
5. Initiation of appropriate changes in operating practices or procedures.
6. Conducting a follow-up interview with the complainant to determine their level of satisfaction with the response and the resultant outcome.

For air quality or noise related complaints, the complaints process as outlined within the AQMP and NMP will be implemented.

A copy of the complaint report will be offered to the complainant. The complaints database will be updated on Austral's website quarterly and a summary of the complaints received in each 12 month period will be included in each *Annual Review*.

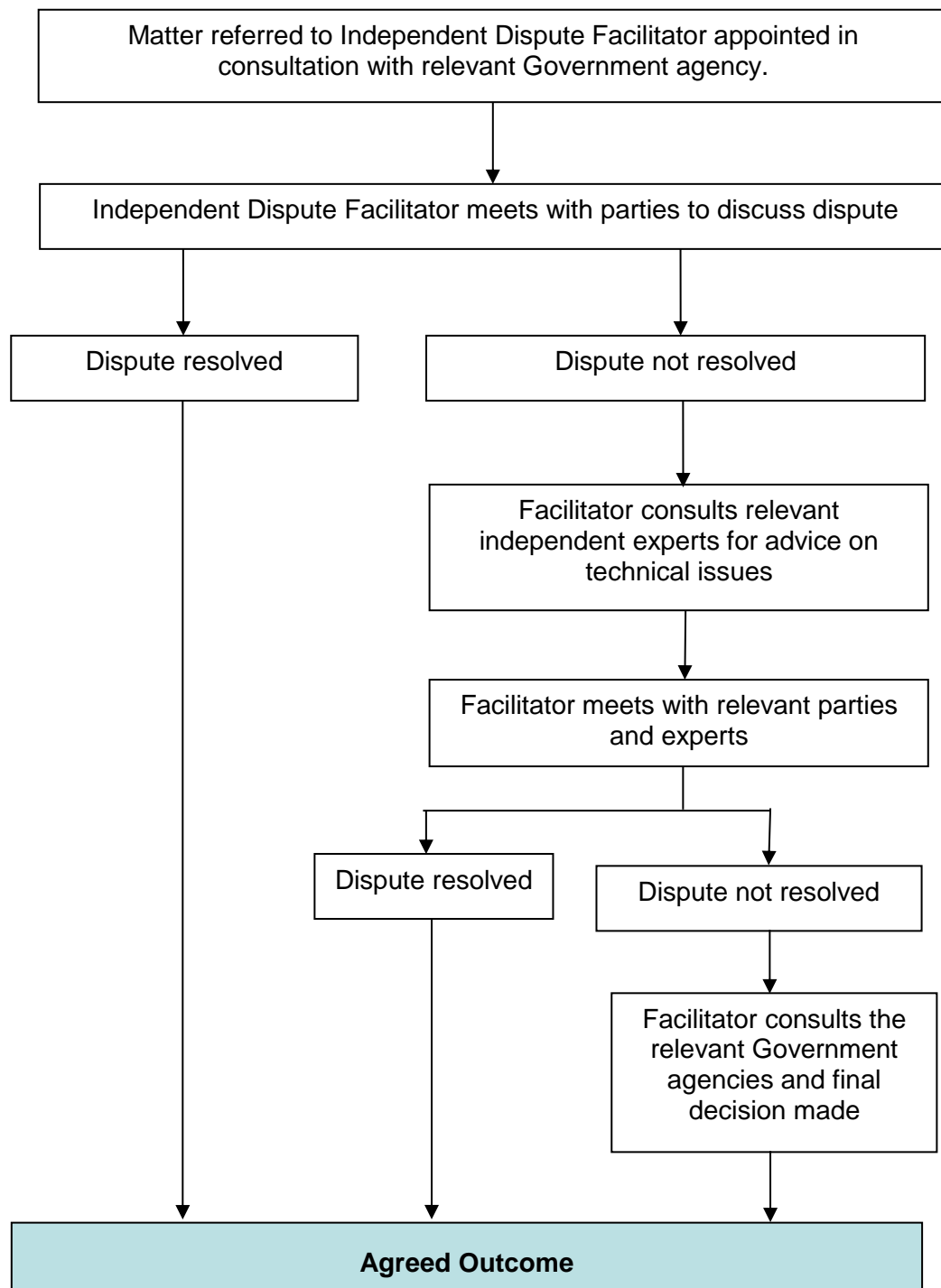
## 9.2 DISPUTE RESOLUTION

In the event that any complainant does not consider that the response or reactions adequately address their concerns, the following procedure will be adopted.

1. A meeting will be convened with the Compliance & Environmental Coordinator or other senior Austral personnel to seek resolution of the matter. The complainant will be provided with a written response, detailing the results of investigations undertaken and the agreed actions to be taken regarding the measures to be implemented.
2. On implementation of the nominated measures, a further meeting will be convened to seek advice of satisfaction, or otherwise, regarding the outcomes.

If, after 21 days following Steps 1 and 2, the complainant believes the matter remains unresolved and no further agreement can be reached as to additional measures to be undertaken, the matter will be referred to an independent Dispute Facilitator for independent review in accordance with the process outlined in **Figure 5**.

**Figure 5 Independent Dispute Resolution Process**



## 10. EMERGENCY RESPONSE

**Table 4** presents the procedures that will be implemented in the event of an emergency within the Quarry. It is noted that emergency preparedness will be managed through standard Quarry planning, design and operational standards. Investigation and reporting in relation to the emergency, where relevant or necessary, will be managed through the incident reporting and review process identified in the relevant Management Plan.

**Table 4**  
**Emergency Response Procedures**

Emergency	Response – Immediate	Response – recovery stage
<b>Fire-related Emergency</b>		
Mobile equipment fire	<ul style="list-style-type: none"> <li>Evacuate and account for all personnel.</li> <li>Notify Emergency Services.</li> <li>Fight fire (if safe to do so).</li> <li>Isolate fuel supply, if appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>Restrict access to equipment to allow investigation.</li> <li>Ensure any hydrocarbon or other leaks managed.</li> </ul>
Bushfire – initiation on Site	<ul style="list-style-type: none"> <li>Evacuate and account for all personnel.</li> <li>Notify Emergency Services.</li> <li>Use on-site water cart and other equipment to extinguish or isolate fire (if safe to do so).</li> </ul>	<ul style="list-style-type: none"> <li>Monitor burnt area for re-ignition under guidance of the Rural Fire Service.</li> </ul>
Bushfire – encroachment from off site	<ul style="list-style-type: none"> <li>Advise personnel and prepare to evacuate if required.</li> <li>Contact Emergency Services and offer assistance.</li> <li>Use mobile plant to create/upgrade fire break (if required and safe to do so).</li> </ul>	<ul style="list-style-type: none"> <li>Monitor burnt area for re-ignition under guidance of the Rural Fire Service.</li> </ul>
<b>Medical Emergency</b>		
Life-threatening medical emergency	<ul style="list-style-type: none"> <li>Administer first aid, if safe to do.</li> <li>Contact Emergency Services.</li> </ul>	<ul style="list-style-type: none"> <li>Notify and assist patient's family.</li> <li>Provide counselling for co-workers (if required).</li> </ul>
Non-life threatening medical emergency	<ul style="list-style-type: none"> <li>Administer first aid.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure medical advice is sought by person.</li> </ul>
<b>Ground Stability/Collapse Emergency</b>		
Failure of Quarry highwall / unplanned collapse of quarry floor	<ul style="list-style-type: none"> <li>Evacuate relevant section of the Extraction Area.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain a suitable exclusion zone until advised otherwise by a suitably qualified specialist.</li> </ul>
<b>Chemical Spill Emergency</b>		
Major Hydrocarbon Spill	<ul style="list-style-type: none"> <li>Deploy spill control equipment to contain and isolate the spill.</li> <li>Control the source of the spill (i.e. close valves) if practicable and safe to do so.</li> </ul>	<ul style="list-style-type: none"> <li>Clean up spill material and dispose of appropriately.</li> <li>Implement decontamination/clean up procedures.</li> </ul>

## **11. STAKEHOLDER AND COMMUNITY CONSULTATION**

### **11.1 STAKEHOLDER CONSULTATION**

Austral will continue to undertake consultation with all relevant stakeholders as necessary to allow for consideration of all reasonable views and timely feedback to any issues that are raised. Relevant stakeholders include, but are not limited to the following.

- Department of Planning and Environment.
- Environment Protection Authority.
- Office of Environment and Heritage.
- Division of Resources and Geoscience.
- Water NSW.
- Wingecarribee Shire Council.
- Registered Aboriginal Parties.
- Community Consultative Committee.
- Local community.

Communication, consultation and information dissemination strategies with the above stakeholders will include the following.

- Regular meetings of the Community Consultative Committee (see Section 11.2).
- Periodic community newsletters, if appropriate and/or requested by the CCC.
- Individual meetings on request with surrounding landholders and interested community groups.
- Placement of relevant environmental performance information and other relevant documents on Austral's website.

The extent of communications, etc. will reflect the interest of the respective stakeholders in the Quarry's operations.

### **11.2 COMMUNITY CONSULTATIVE COMMITTEE**

In accordance with *PA Condition 5(6)* Austral will continue to operate the CCC in accordance with the Guidelines for establishing and operating Community Consultative Committees for mining projects (Department of Planning & Environment, 2017). The CCC was established in August 2016 and first met on 07 September 2016.

## 12. COMPETENCE TRAINING AND AWARENESS

All Company personnel and contractors and their employees will undergo Company and site-specific inductions, incorporating environmental management awareness and draw upon the various environmental measures outlined in each of the six supporting Management Plans and include the following areas.

- Noise management.
- Air quality management.
- Water management.
- Landscape and rehabilitation management.
- Aboriginal heritage management.
- Traffic management.
- Reporting of incidents.
- Community engagement and consultation.

The Compliance & Environmental Coordinator or delegate will be responsible for ensuring that all relevant employees and contractors are appropriately inducted prior to undertaking any ground-disturbing works and are re-inducted on at least a 2-yearly basis.

## 13. PUBLICATION OF ENVIRONMENTAL PERFORMANCE INFORMATION

Austral will maintain a publicly available webpage for its New Berrima Clay/Shale Quarry on its corporate website which will incorporate all information nominated in *PA Condition 5(11)*. A summary of relevant environmental and performance information will also be included in each *Annual Review* for the period ending 31 December each year and addressing the relevant requirements of *PA Condition 5(4)*. The Annual Review will similarly be published on the website. Detailed information on the publication of specific data obtained for the Quarry is outlined within each respective Management Plan.

## 14. ROLES AND RESPONSIBILITIES

**Table 5** presents the roles and responsibilities for the implementation of the EMS.

## 15. STRATEGY REVIEW

In accordance with *PA Condition 5(5)*, this EMS will be reviewed and, if required, revised within 3 months of:

- the submission of an annual review under *PA Condition 5(4)*;
- the submission of an incident report under *PA Condition 5(7)*;
- the submission of an audit report under *PA Condition 5(9)*; and
- any modification to the conditions of PA 08\_0212.

**Table 5**  
**Roles and Responsibilities – Environmental Management Strategy**

<b>Roles*</b>	<b>Responsibility</b>
NSW Manufacturing Manager	<ul style="list-style-type: none"> <li>• Ensure adequate resources are available to enable implementation of this Strategy and all Environmental Management Plans.</li> <li>• Ensure all documentation is reviewed, as required.</li> <li>• Ensure adequate resources are available to enable implementation of the Plan.</li> </ul>
Raw Materials & Mining Manager	<p>Ensure the implementation of this Strategy, including the following.</p> <ul style="list-style-type: none"> <li>• Ensure employees are competent through appropriate training and induction.</li> <li>• Ensure limits on areas of disturbance are understood and operations are undertaken in accordance with instructions.</li> </ul>
Compliance & Environmental Coordinator	<p>Accountable for the overall environmental performance of the Quarry, including the following.</p> <ul style="list-style-type: none"> <li>• Evaluation of Compliance.</li> <li>• Ensure that monitoring is undertaken in accordance with the Management Plans.</li> <li>• Corrective Action and Preventative Actions are implemented as applicable.</li> <li>• Implementation of all environmental controls outlined in the various Management Plans.</li> <li>• Notify the OEH and Registered Aboriginal Parties in the event that an Aboriginal object is uncovered (or an object which could be of Aboriginal origin is uncovered).</li> <li>• Corrective and Preventative Actions.</li> <li>• Complaints handling and incident reporting.</li> <li>• Coordinate Environmental Monitoring and publishing of data.</li> <li>• Dispute Resolution.</li> <li>• Review of this Strategy.</li> <li>• Consultation Strategies.</li> <li>• Conduct environmental component of site induction for all employees and contractors.</li> <li>• Inspecting rehabilitation progress.</li> </ul>
All personnel	<ul style="list-style-type: none"> <li>• Ensure compliance with this EMS.</li> <li>• Ensure training and awareness induction has been undertaken.</li> </ul>
*Or equivalent position delegated these responsibilities.	

# **Appendix 1**

## **Project Approval**

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## Project Approval

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

As delegate of the Minister for Planning and Infrastructure, I approve the project application referred to in schedule 1, subject to the conditions in schedules 2 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 project.

Deputy Director-General  
Development Assessment and Systems Performance

Sydney

2012

#### SCHEDULE 1

<b>Application Number:</b>	08_0212
<b>Proponent:</b>	The Austral Brick Company Pty Limited
<b>Approval Authority:</b>	Minister for Planning and Infrastructure
<b>Land:</b>	Lot 1 DP 414246
<b>Project:</b>	New Berrima Shale Quarry Project

Blue type represents November 2015 modification  
Green type represents July 2017 modification

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## DEFINITIONS

Annual Review	The review required by condition 4 of schedule 5
BCA	Building Code of Australia
CCC	Community Consultative Committee
Conditions of this approval	Conditions contained in schedules 1 to 5 inclusive
Council	Wingecarribee Shire Council
CPI	Australian Bureau of Statistics Consumer Price Index
Department	Department of Planning and Environment
DPI – Water	Department of Primary Industries – Water
DRG	Division of Resources and Geoscience within the Department
EA	Environmental assessment of the project titled <i>Environmental Assessment for the New Berrima Clay/Shale Quarry Project, Specialist Consultant Studies Compendium</i> , dated December 2010, <i>Response to Submissions for the New Berrima Clay/Shale Quarry</i> , dated April 2011, and <i>Response to the Submission from the Sydney Catchment Authority for the New Berrima Clay/Shale Quarry</i> , dated May 2011, prepared by R. W. Corkery and Co Pty Limited
EA (MOD 1)	Environmental Assessment titled ' <i>Environmental Assessment to Support a Section 75W Modification of PA08_0212 for the New Berrima Clay/Shale Quarry</i> ', dated May 2015 and prepared by RW Corkery & Co Pty Limited, including the Response to Submissions documents dated September 2015 and additional information dated 30 October 2015, both prepared by RW Corkery & Co Pty Limited
EA (MOD 2)	Environmental Assessment titled ' <i>Environmental Assessment for the Modification of PA 08_0212</i> ' dated February 2017, including the Response of Submissions document dated June 2017, both prepared by RW Corkery & Co Pty Limited
EPA	NSW Environmental Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence under the <i>POEO Act</i>
Feasible	Feasible relates to engineering considerations and what is practical to build
Haul route	The route along which quarry product may be hauled from the site to the Bowral Brick Works as described in the EA and depicted in Figure 3 in APPENDIX A
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 approval</li> </ul>
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in schedules 3 and 4 of this approval where it is defined to mean the whole of a lot, or contiguous lots, owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
m AHD	metres Australian Height Datum
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
Negligible	Small and unimportant, such as to be not worth considering
OEH	NSW Office of Environment and Heritage
Privately-owned land	Land that is not owned by a public agency or the Proponent (or its subsidiary)
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Project	The development as described in the EA
Proponent	The Austral Brick Company Pty Limited, or any other person who seeks to carry out the development approved under this approval
Quarrying operations	Includes the removal of overburden and extraction, processing, handling, storage and transportation of extractive materials on site
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of

Rehabilitation	mitigation versus benefits provided, community views and the nature and extent of potential improvements The restoration of land disturbed by the project to a good condition, and ensure it is safe, stable and non-polluting
RMS	Roads and Maritime Services
Secretary	<a href="#">Secretary of the Department, or nominee</a>
Statement of commitments	The Proponent's commitments in APPENDIX B
Site	The land listed in Schedule 1
Truck	A vehicle with a Gross Vehicle Mass of 5 tonnes or more
Visibility Barriers	<a href="#">The Northern, Central and Southern Visibility Barriers shown on Figure 1 in Appendix A</a>

SCHEDULE 2  
ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this approval, the Proponent **must** implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the project.

TERMS OF APPROVAL

2. The Proponent **must** carry out the project generally in accordance with the:
  - (a) EA;
  - (b) EA (MOD 1); and
  - (c) EA (MOD 2).
- 2A. The Proponent **must** carry out the project in accordance with the Project Plans, statement of commitments, and the conditions of this consent.

Notes:

- a) The Project Plans are shown in APPENDIX A; and
- b) The statement of commitments is reproduced in APPENDIX 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. However, the conditions of this approval shall prevail to the extent of any inconsistency.
4. The Proponent **must** comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
  - (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and
  - (b) the implementation of any actions or measures contained in these documents.

LIMITS ON APPROVAL

Quarrying Operations

5. The Proponent may carry out quarrying operations on the site until 31 December 2045.

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

Extractive Material Extraction

6. The Proponent **must** not carry out any development in the extraction area below a level of 640 m AHD.

*Note: This condition does not apply to the construction of any bores approved by DPI - Water or pollution and sediment control structures described in the EA or EA (MOD 1).*

7. The Proponent **must** not extract more than 150,000 tonnes of extractive materials from the site in any calendar year.

Extractive Material Transport

8. The Proponent **must** not transport more than:
  - (a) 150,000 tonnes of product from the site in any calendar year;
  - (b) 68 laden trucks from the site in a day; and
  - (c) 8 laden trucks from the site in an hour.
9. The Proponent **must** only transport extractive material on the haul route.

#### STRUCTURAL ADEQUACY

10. The Proponent **must** ensure that all 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 Proponent is required to obtain construction and occupation certificates for the proposed building works.
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.

#### DEMOLITION

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

#### PROTECTION OF PUBLIC INFRASTRUCTURE

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

#### OPERATION OF PLANT AND EQUIPMENT

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

#### STAGED SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAM

14. With the approval of the **Secretary**, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis.

*Notes:*

- While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and
- 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 to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.

#### PRODUCTION DATA

15. The Proponent **must**:
- (a) provide annual quarry production data to **DRG** using the standard form for that purpose; and
  - (b) include a copy of this data in the Annual Review (see condition 4 of schedule 5).

SCHEDULE 3  
ENVIRONMENTAL PERFORMANCE CONDITIONS

IDENTIFICATION OF BOUNDARIES

1. Prior to carrying out any development on site under this approval, the Proponent **must**:
  - (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction; and
  - (b) submit a survey plan of these boundaries to the **Secretary**.
2. During the project, the Proponent **must** ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify the limits of extraction.

NOISE

Bund Construction

3. The Proponent **must** construct the **Visibility Barriers** prior to carrying out any quarrying operations on site under this approval to the satisfaction of the **Secretary**. This condition does not prohibit the winning of extractive material on site to be used in the construction of the **Visibility Barriers**.

*Note: **Visibility Barriers** are shown on the project layout plans in Figure 1 of APPENDIX A.*

**Visibility Barrier and Stockpile Dimensions**

- 3A. The **Visibility Barriers** and surplus overburden stockpile (refer Figure 1 Appendix A) must be constructed to meet the dimensions specified in Table 1A, unless the **Secretary** agrees otherwise.

Table 1A - **Visibility Barriers and Surplus Overburden Stockpile Dimensions**

Structure	Height	Base Width (m)	Length (m)	Surface Area (ha)
Central Barrier (minimum)	675 (m AHD)	30 - 45	420	1.5
Northern Barrier (minimum)	672 (m AHD)	35 - 50	160	0.7
Southern Barrier (minimum)	4 metres above the natural land surface	20	350	0.7
Overburden Stockpile (maximum)	683 (m AHD)	-	-	-

Noise Criteria – Bund Construction

4. During the construction of the **Visibility Barriers**, the Proponent **must** ensure that the noise generated on site does not exceed the criteria in Table 1.

Table 1 - **Noise Criteria - Bund Construction**

Receiver	$L_{Aeq} (15 \text{ min}) \text{ dB(A)}$
R2	43
All other receivers	38

Notes:

- Receiver locations are shown in Figure 4 of APPENDIX A.
- Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

Noise Criteria

5. Except for the period when the **Visibility Barriers** are being constructed, the Proponent **must** ensure that the noise generated by the project does not exceed 38dB(a)  $L_{Aeq} (15 \text{ min})$  at any residence on privately-owned land.

However, this criterion does not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.

## Hours of Operation

6. The Proponent **must** comply with the operating hours in Table 2.

Table 2 - Operating Hours

Day	Transport	Quarrying Operations	Construction
Monday – Friday	7 am to 4 pm	7 am to 5 pm	7 am – 5 pm
Saturday	8 am to 1 pm	8 am to 1 pm	8 am – 1 pm
Sundays and Public Holidays	None	None	None

*Note: Maintenance activities may occur at any time provided they are inaudible at privately-owned residences.*

## Operating Conditions

7. The Proponent **must**:
- implement best practice noise management to minimise the construction, operational, low frequency and traffic noise of the project;
  - minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply;
  - maintain the effectiveness of any noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired; and
  - regularly assess noise monitoring data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval, to the satisfaction of the **Secretary**.

## Noise Management Plan

8. The Proponent **must** prepare a Noise Management Plan for the project to the satisfaction of the **Secretary**. This plan must:
- be prepared in consultation with the EPA, and submitted to the **Secretary** for approval prior to the construction of the **Visibility Barriers**;
  - describe the measures that would be implemented to ensure:
    - best management practice is being employed on site;
    - the noise impacts of the project are minimised during meteorological conditions when the noise limits in this approval do not apply; and
    - compliance with the relevant conditions of this approval;
  - describe the proposed noise management system in detail; and
  - include a monitoring program that:
    - is capable of evaluating the performance of the project;
    - includes a protocol for determining exceedances of the relevant conditions in this approval; and
    - evaluates and reports on the effectiveness of the noise management system on site.

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

## AIR QUALITY

### Air Quality Criteria

9. The Proponent **must** ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated on site do not exceed the criteria in Table 3, Table 4 and Table 5 at any residence on privately-owned land, or on more than 25% of any privately-owned land.



Table 3 - Long-Term Impact Assessment Criteria for Particulate Matter

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

Table 4 - Short Term Impact Assessment Criteria for Particulate Matter

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

Table 5 - Long-Term Impact Assessment Criteria for Deposited Dust

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

Notes to Tables:

- <sup>a</sup> Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources);
- <sup>b</sup> Incremental impact (ie incremental increase in concentrations due to the project on its own);
- <sup>c</sup> Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
- <sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the [Secretary](#) in consultation with EPA.
- <sup>e</sup> "Reasonable and feasible avoidance measures" includes, but is not limited to, the operational requirements in conditions 10, 11 and 12 to develop and implement an air quality management system that ensures operational responses to the risks of exceedance of the criteria.

### Operating Conditions

- The Proponent [must](#):
  - implement best management practice to minimise the dust emissions of the project;
  - regularly assess air quality monitoring data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval;
  - minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note d under Table 5 above);
  - minimise any visible off-site air pollution; and
  - minimise the surface disturbance of the site generated by the project.

### Air Quality Management Plan

- The Proponent [must](#) prepare an Air Quality Management Plan for the project to the satisfaction of the [Secretary](#). This plan must:

- (a) be prepared in consultation with the EPA, and submitted to the [Secretary](#) for approval prior to the construction of the [Visibility Barriers](#);
- (b) describes the measures that would be implemented to ensure:
  - best management practice is employed;
  - the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events; and
  - compliance with the relevant conditions of this approval;
- (c) describes the proposed air quality management system; and
- (d) includes an air quality monitoring program that:
  - is capable of evaluating the performance of the project;
  - includes a protocol for determining any exceedances of the relevant conditions of approval;
  - adequately supports the air quality management system; and
  - evaluates and reports of the adequacy of the air quality management system.

The Proponent **must** implement the approved management plan as approved from time to time by the [Secretary](#).

#### METEOROLOGICAL MONITORING

- 12. During the life of the project, the Proponent **must** ensure that there is a suitable meteorological station in the vicinity of the site that complies with the requirements in the "Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales" guideline.

#### SOIL AND WATER

*Note: The Proponent is required to obtain the necessary water licences for the project under the Water Act 1912 and/or Water Management Act 2000.*

##### Riparian Buffer Distance

- 13. The Proponent **must** maintain a minimum buffer distance of [515 metres](#) (measured from the top of bank) between extraction area and Wingecarribee River.

##### Surface Water Discharges

- 14. The Proponent **must** ensure that all surface water discharges from the site comply with section 120 of the POEO Act or, if an EPL has been issued regulating water discharges from the site, the discharge limits (both volume and quality) set for the project in the EPL.

##### Surface Water Supply

- 15. The Proponent **must** ensure it has sufficient water for all stages of the project, and if necessary, adjust the scale of quarrying operations on site to match its available supply.

##### On-Site Sewage Management

- 16. The Proponent **must** manage on-site sewage to the satisfaction of Council and EPA.

##### Storage of Chemicals & Petroleum Products

- 17. The Proponent **must** ensure all chemicals and/or petroleum products on site are stored in accordance with Australian Standard AS1940-2004, *The Storage and Handling of Flammable and Combustible Liquids*, and in appropriately bunded areas with impervious flooring and of sufficient capacity to contain 110% of the largest container stored within the bund. The flooring and bund(s) **must** be designed in accordance with:
  - the requirements of relevant Australian Standards; and
  - DECC's *Storing and Handling Liquids: Environmental Protection – Participants Manual*.

##### Water Management Plan

- 18. The Proponent **must** prepare a Water Management Plan for the project to the satisfaction of the [Secretary](#). This plan must be prepared in consultation with the EPA, [WaterNSW](#) and [DPI – Water](#) by suitably qualified and experienced persons whose appointment has been approved by the [Secretary](#), and be submitted to the [Secretary](#) for approval prior to the construction the [Visibility Barriers](#) on site.

In addition to the standard requirements for management plans (see condition 3 of schedule 5), this plan must include a:

- (a) Site Water Balance that:
- includes details of:
    - sources and security of water supply, including contingency planning for future reporting periods;
    - water use on site;
    - water management on site;
    - reporting procedures, including comparisons of the site water balance each calendar year; and
  - describes the measures that would be implemented to minimise clean water use on site;
- (b) Surface Water Management Plan, that includes:
- detailed baseline data on surface water flows and quality in the water-bodies that could be affected by the project;
  - a detailed description of the surface water management system on site, including the:
    - clean water diversion systems;
    - erosion and sediment controls; and
    - water storages.
  - a plan for identifying, extracting, handling, and the long-term storage of potentially acid forming material on site;
  - detailed plans, including design objectives and performance criteria, for:
    - the water storage dams; and
    - reinstatement of drainage lines on the rehabilitated areas of the site;
    - control of water pollution from rehabilitated areas of the site;
  - performance criteria for the following, including trigger levels for investigating any potentially adverse impacts, for the following:
    - the water management system;
    - surface water quality of local water ways; and
    - ecosystem health of local water ways;
  - performance criteria for surface water quality attributes relevant to water quality impacts on biological diversity and aquatic ecological integrity, including salinity, heavy metals, sediment load, pH, hardness and biological oxygen demand;
  - a program to monitor
    - the effectiveness of the water management system;
    - surface water flows and quality in local water ways; and
    - ecosystem health of local water ways;
  - a plan to respond to any **exceedances** of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project; and
- (c) Groundwater Management Plan, which includes:
- detailed baseline data on groundwater levels, yield and quality in the area, that could be affected by the project;
  - groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;
  - a program to monitor:
    - groundwater inflows to the quarrying operations;
    - the impacts of the project on:
      - local alluvial aquifers;
      - any groundwater bores on privately-owned land that could be affected by the project;
      - the seepage/leachate from water storages or backfilled voids on site; and
      - groundwater dependent ecosystems;
  - a plan to respond to any exceedances of the groundwater assessment criteria;

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

#### Groundwater Monitoring

18A. The Proponent **must** install 3 pairs of nested piezometers prior to the quarry pit floor reaching 660 m AHD, in consultation with DPI – Water and to the satisfaction of the Secretary.

#### VISUAL

##### Establishment of Effective Vegetative Screens

19. The Proponent **must** vegetate (with grasses, shrubs and trees) the **Visibility Barriers** as soon as practicable after the completion of the construction of the bunds, to the satisfaction of the **Secretary**.
- 19A. Prior to transporting any product from the site, the Proponent **must** establish a 0.68 ha tree screen adjacent to the Northern Visibility Barrier, as shown on Figure 1 in Appendix A. The screen **must** include native plant species from the **Southern Highlands Shale Woodland Endangered Ecological Community**.

#### Advertising

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

*Note: This condition does not require approval for any business identification, traffic management, and/or safety or environmental signs.*

#### Operating Conditions

21. The Proponent **must**
- (a) implement all reasonable and feasible measures to minimise the visual impacts and any off-site lighting impacts of the project; and
  - (b) maintain and improve the effectiveness of the bunds and vegetative screens over the life of the project.
22. **Deleted.**

#### TRANSPORT

##### Road upgrades (local roads)

23. Prior to transporting any extractive material from the site, the Proponent **must**:
- (a) construct the junction of the site access road with Berrima Road to Basic Right Turn and Basic Left Turn Treatment standard for a 19m semi-trailer;
  - (b) construct a raised concrete median in Berrima Road on the south bound approach to its junction with MR372;
  - (c) provide appropriate traffic signage and line-marking,
- in accordance with AUSTROADS *Guide to Road Design* and to the satisfaction of the Council.

##### Road upgrades (main roads)

24. Prior to transporting any extractive material from the site, the Proponent **must**:
- (a) construct the Berrima Road/Taylor Avenue junction to give priority to MR372 incorporating Rural BA Left and Right turn treatments for a 19m semi-trailer;
  - (b) provide appropriate traffic signage and line-marking,
- in accordance with AUSTROADS *Guide to Road Design* and to the satisfaction of the Council and the RMS.

*If the Council undertakes or proposes to undertake a superior treatment of this intersection upgrade, then this condition may be fulfilled by the Proponent paying a monetary contribution to the Council equivalent to the cost of the upgrades specified under this condition, as assessed by a qualified independent valuer or quantity surveyor appointed by the Secretary. The costs of the valuation are to be paid by the Proponent.*

*Any dispute over the interpretation of this condition or a satisfactory valuation can be referred by any party to the Secretary for resolution. The decision of the Secretary in any such dispute shall be final.*

#### Transport Route

25. The Proponent **must** ensure heavy vehicles associated with the Project travel along haulage routes specified in the EA and the haulage route diagram in Figure 3 of APPENDIX A to this approval **to the satisfaction of the Secretary**.

#### Road Maintenance Contribution

26. The Proponent **must** pay to Council an annual contribution of 91.2 cents per cubic metre of extractive material exported from the site (indexed annually to Consumer Price Index) for the life of the Project. The volume of extractive material exported from the site must be established by way of a volumetric survey of the site carried out by a registered surveyor. Each annual volumetric survey must be provided to Council to allow verification of the contribution amount. The first annual payment falls due 12 months from the commencement of operation.

*Note: The Proponent must provide a base-line survey of the site to the Council prior to the commencement of operations.*

#### Parking

27. The Proponent **must** provide sufficient parking for all project-related traffic, in accordance with Council's parking code.

#### Operating Conditions

28. The Proponent **must** ensure that:
- (a) vehicles on site do not exceed a speed limit of 30 kilometres per hour;
  - (b) all loaded vehicles entering or leaving the site have their loads covered; and
  - (c) all loaded vehicles leaving the site are cleaned of sand and other materials before they leave the site so they do not track dirt onto the public roads.

#### Transport Management Plan

29. The Proponent **must** prepare a Transport Management Plan for the project to the **Secretary**. This plan must:
- (a) be submitted prepared in consultation with the RMS and Council, and submitted to the **Secretary** for approval prior to carrying out any quarrying operations on site;
  - (b) include a drivers' code of conduct for the project;
  - (c) describe the measures that would be implemented to ensure:
    - establishing a CB radio communication protocol with the local bus companies, to improve driver awareness of quarry truck and school bus locations along haulage routes;
    - the drivers of project-related vehicles comply with the drivers' code of conduct for the project; and
    - compliance with the relevant conditions of this approval; and
  - (d) include a program to monitor the effectiveness of the implementation of these measures.

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

30. Should the Traffic Management Plan (TMP) for the proposed works require a reduction of the speed limit on Berrima Road and/or Taylor Avenue, a Speed Zone Authorisation **must** be obtained from RMS Traffic Operations Unit (TOU) prior to commencing work within the road reserve.

#### WASTE

31. The Proponent **must**:
- (a) monitor the amount of waste generated by the project;
  - (b) investigate ways to minimise waste generated by the project;
  - (c) implement reasonable and feasible measures to minimise waste generated by the project;
  - (d) ensure that all waste generated by the project is lawfully disposed of to an appropriate facility; and
  - (e) report on waste management and minimisation in the annual review, to the satisfaction of the Secretary.

## ABORIGINAL HERITAGE

### Aboriginal Heritage Management Plan

32. The Proponent **must** prepare an Aboriginal Heritage Management Plan for the project to the satisfaction of the **Secretary**. This plan must:
- be prepared in consultation with OEH and the relevant Local Aboriginal Land Council;
  - be submitted to the **Secretary** for approval prior to any ground disturbance; and
  - include a:
    - protocol for the engagement of an Aboriginal Site Officer for any necessary ground disturbance monitoring;
    - program for the recording, notifying, salvage and surface collection of any Aboriginal objects/sites that may be encountered within the project area;
    - description of the measures that would be implemented if any Aboriginal skeletal remains are discovered during the project; and
    - protocol for the ongoing consultation and involvement of the Aboriginal community in the conservation and management of the Aboriginal heritage of the objects/sites.

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

- 32A. If any item or object of potential Aboriginal heritage significance is identified during works associated with the project, the Proponent must ensure that:
- all work in the immediate vicinity of the potential Aboriginal item or object ceases immediately;
  - a 10 m buffer area around the potential item or object is cordoned off; and
  - the OEH is contacted immediately.

Work in the immediate vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the *National Parks and Wildlife Act 1974*.

## LANDSCAPE

### Rehabilitation Objectives

33. The Proponent **must** rehabilitate the site to the satisfaction of the **DRG**. This rehabilitation must be consistent with the proposed rehabilitation strategy in the **EA (MOD 1)**, and comply with the objectives in Table 6

Table 6 - Rehabilitation Objectives

Feature	Objective
Site (as a whole)	Safe, stable & non-polluting
Surface Infrastructure	To be decommissioned and removed, unless the <b>DRG</b> agrees otherwise
Quarry Walls	Final slopes of 1:3 (vertical : horizontal), except the southwestern wall of Bench 1 Vegetated with native endemic flora species to be consistent with surrounding landscape and to minimise visual impacts
Quarry Pit Floor	Suitable for grazing or other agricultural activities
Other Land affected by the project	Restore ecosystem function, including maintaining or establishing self-sustaining eco-systems comprised of: <ul style="list-style-type: none"> <li>local native species; and</li> <li>a landform consistent with the surrounding environment</li> </ul>

### Progressive Rehabilitation

34. The Proponent **must** rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies **must** be employed when areas prone to dust generation cannot yet be permanently rehabilitated.

#### Landscape Management Plan

35. The Proponent **must** prepare a Landscape Management Plan for the project to the satisfaction of the **Secretary**. This plan must:
- (a) be prepared in consultation with OEH and Council, and submitted to the **Secretary** for approval prior to carrying out any development on site under this approval;
  - (b) describe the short, medium and long term measures that would be implemented to:
    - manage the remnant vegetation and habitat on site;
    - rehabilitate the riparian land adjacent to the Wingecarribee River on site; and
    - ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this approval;
  - (c) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggering remedial action (if necessary);
  - (d) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
    - ensuring compliance with the rehabilitation objectives and progressive rehabilitation obligations in this approval;
    - enhancing the quality of existing vegetation and fauna habitat;
    - restoring native endemic vegetation and fauna habitat within the biodiversity areas and rehabilitation area;
    - maximising the salvage of resources within the approved disturbance area – including vegetative and soil resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;
    - collecting and propagating seed;
    - minimising the impacts on fauna on site, including undertaking pre-clearance surveys;
    - controlling weeds and feral pests;
    - controlling erosion;
    - managing grazing and agriculture on site;
    - controlling access; and
    - bushfire management;
  - (e) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;
  - (f) identify the potential risks to successful implementation of the rehabilitation of the site, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
  - (g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

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

36. Deleted.

37. Deleted.

#### SCHEDULE 4 ADDITIONAL PROCEDURES

##### NOTIFICATION OF LANDOWNERS

1. As soon as practicable after obtaining monitoring results showing an:
  - (a) exceedance of any relevant criteria in schedule 3, the Proponent **must** notify affected landowners in writing of the exceedance, and provide regular monitoring results to each of affected landowner until the project is again complying with the relevant criteria; and
  - (b) an exceedance of the relevant air quality criteria in schedule 3, the proponent **must** send a copy of the NSW Health fact sheet entitled “*Mine Dust and You*” (as may be updated from time to time) to the affected landowners and/or existing tenants of the land.

##### INDEPENDENT REVIEW

2. If an owner of privately-owned land considers the project to be exceeding the relevant criteria in Schedule 3, then he/she may ask the **Secretary** in writing for an independent review of the impacts of the project on his/her land.

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

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the **Secretary**, to:
    - consult with the landowner to determine his/her concerns;
    - conduct monitoring to determine whether the project is complying with the relevant criteria in schedule 3; and
    - if the project is not complying with these criteria, then identify the measures that could be implemented to ensure compliance with the relevant criteria;
  - (b) give the **Secretary** and landowner a copy of the independent review; **and**
  - (c) **comply with any written requests made by the Secretary to implement any findings of the review.**
3. If the independent review determines that the project is complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the **Secretary**.

If the independent review determines that the project is not complying with the relevant criteria in schedule 3, then the Proponent **must**:

    - (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until the project complies with the relevant criteria; or
    - (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria,

to the satisfaction of the **Secretary**.



SCHEDULE 5  
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

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

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

Adaptive Management

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

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

- (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**.

Management Plan Requirements

3. The Proponent **must** ensure that the Management Plans required under this approval are prepared in accordance with any relevant guidelines, and include:
  - (a) detailed baseline data;
  - (b) a description of:
    - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
    - any relevant limits or performance measures/criteria; and
    - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;
  - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
  - (d) a program to monitor and report on the:
    - impacts and environmental performance of the project; and
    - effectiveness of any management measures (see (c) above);
  - (e) a contingency plan to manage any unpredicted impacts and their consequences;

- (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
- (g) a protocol for managing and reporting any:
  - incidents;
  - complaints;
  - non-compliances with statutory requirements; and
  - exceedances of the impact assessment criteria and/or performance criteria; and
- (h) a protocol for periodic review of the plan.

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

#### Annual Review

- 4. By the end of December 2016, and annually thereafter, the Proponent must review the environmental performance of the project to the satisfaction of the Secretary. This review must:
  - (a) describe the development (including rehabilitation) that was carried out in the previous calendar year, and the works that are proposed to be carried out over the next year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against:
    - the relevant statutory requirements, limits or performance measures/criteria;
    - the monitoring results of previous years; and
    - the relevant predictions in the documents listed in condition 2 of Schedule 2;
  - (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
  - (d) identify any trends in the monitoring data over the life of the project;
  - (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
  - (f) describe what measures will be implemented over the next year to improve the environmental performance of the project.

#### Revision of Strategies, Plans & Programs

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

Within 4 weeks of conducting any such review, the Proponent must advise the Secretary of the outcomes of the review, and provide any revised documents to the Secretary for review and approval.

*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 project.*

#### Community Consultative Committee

- 6. The Proponent must establish and operate a CCC for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Department's Community Consultative Committee (CCC) Guidelines for State Significant Projects (November 2016, or its latest version), and be operating prior to any development being carried out on site under this approval.

##### Notes:

- The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.
- In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.

#### REPORTING

##### Incident Reporting

- 7. The Proponent must notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the

environment. For any other incident associated with the project, the Proponent **must** notify the **Secretary** and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent **must** provide the **Secretary** and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

#### Regular Reporting

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

#### INDEPENDENT ENVIRONMENTAL AUDIT

9. Within a year of the commencement of development on site under this approval, and every 3 years thereafter, unless the **Secretary** directs otherwise, the Proponent **must** commission, **commence** and pay the full cost of an Independent Environmental Audit of the project. This audit must:
- (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the **Secretary**;
  - (b) include consultation with the relevant agencies;
  - (c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL and/or Water License (including any assessment, plan or program required under these approvals);
  - (d) review the adequacy of any approved strategy, plan or program required under the these approvals;
  - (e) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these 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**.*

- 9A. **Within 12 weeks of commencing each audit, unless the Secretary agrees otherwise, the Proponent must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of any measures proposed to address the recommendations.**
10. Within 3 months of commissioning this audit, or as otherwise agreed by the **Secretary**, the Proponent **must** submit a copy of the audit report to the **Secretary**, together with its response to any recommendations contained in the audit report.

#### ACCESS TO INFORMATION

11. Following the commencement of development on site under this approval, the Proponent **must**:
- (a) make the following information publicly available on its website:
    - the **documents listed in condition 2 of Schedule 2**;
    - current statutory approvals for the project;
    - approved strategies, plans or programs;
    - a summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;
    - a complaints register, updated on a quarterly basis;
    - minutes of CCC meetings;
    - copies of any annual reviews (over the last 5 years);
    - any independent environmental audit, and the Proponent's response to the recommendations in any audit; and
    - any other matter required by the **Secretary**; and
  - (b) keep this information up-to-date, to the satisfaction of the **Secretary**.



APPENDIX A: PROJECT PLANS

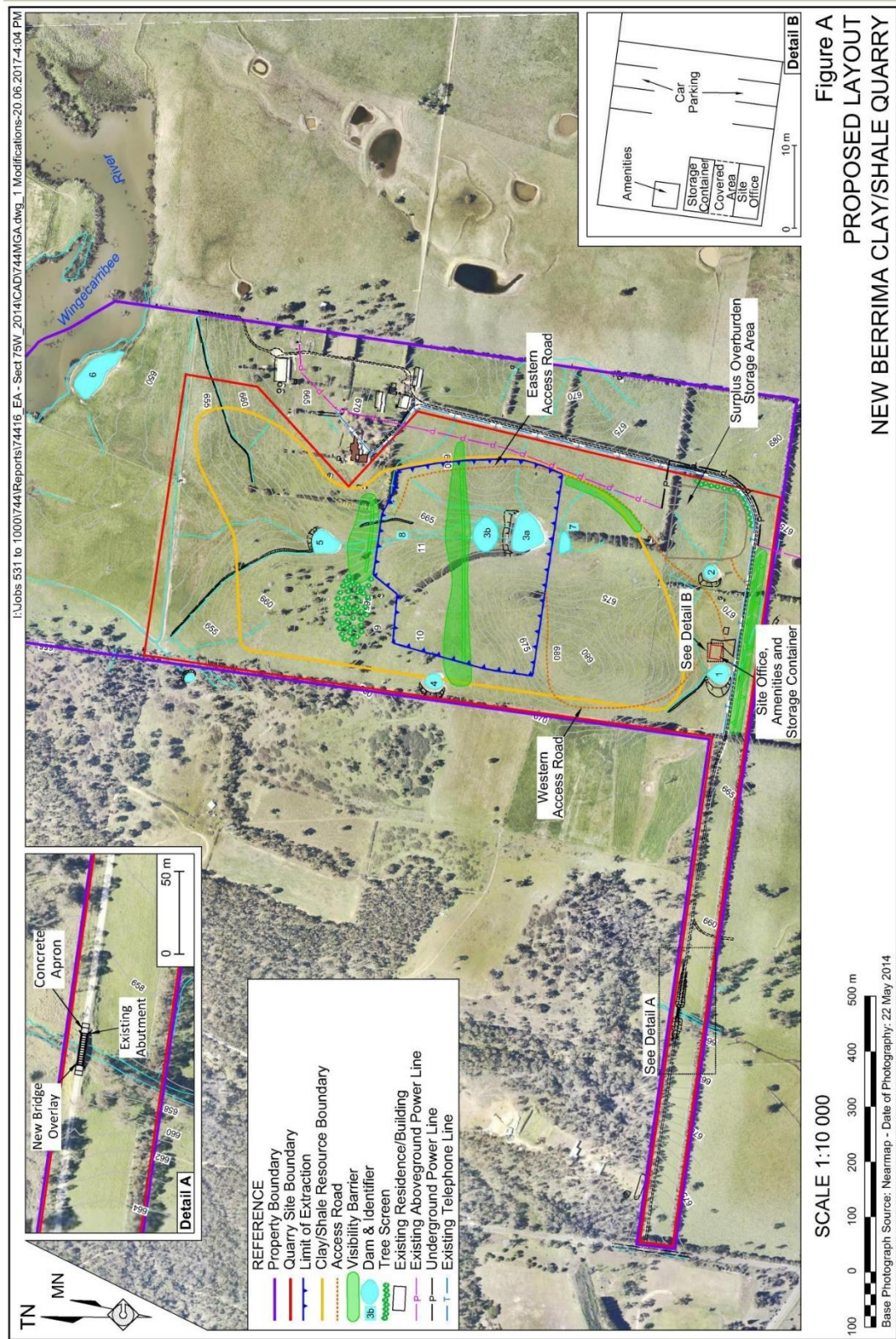


Figure 1 - Project Layout

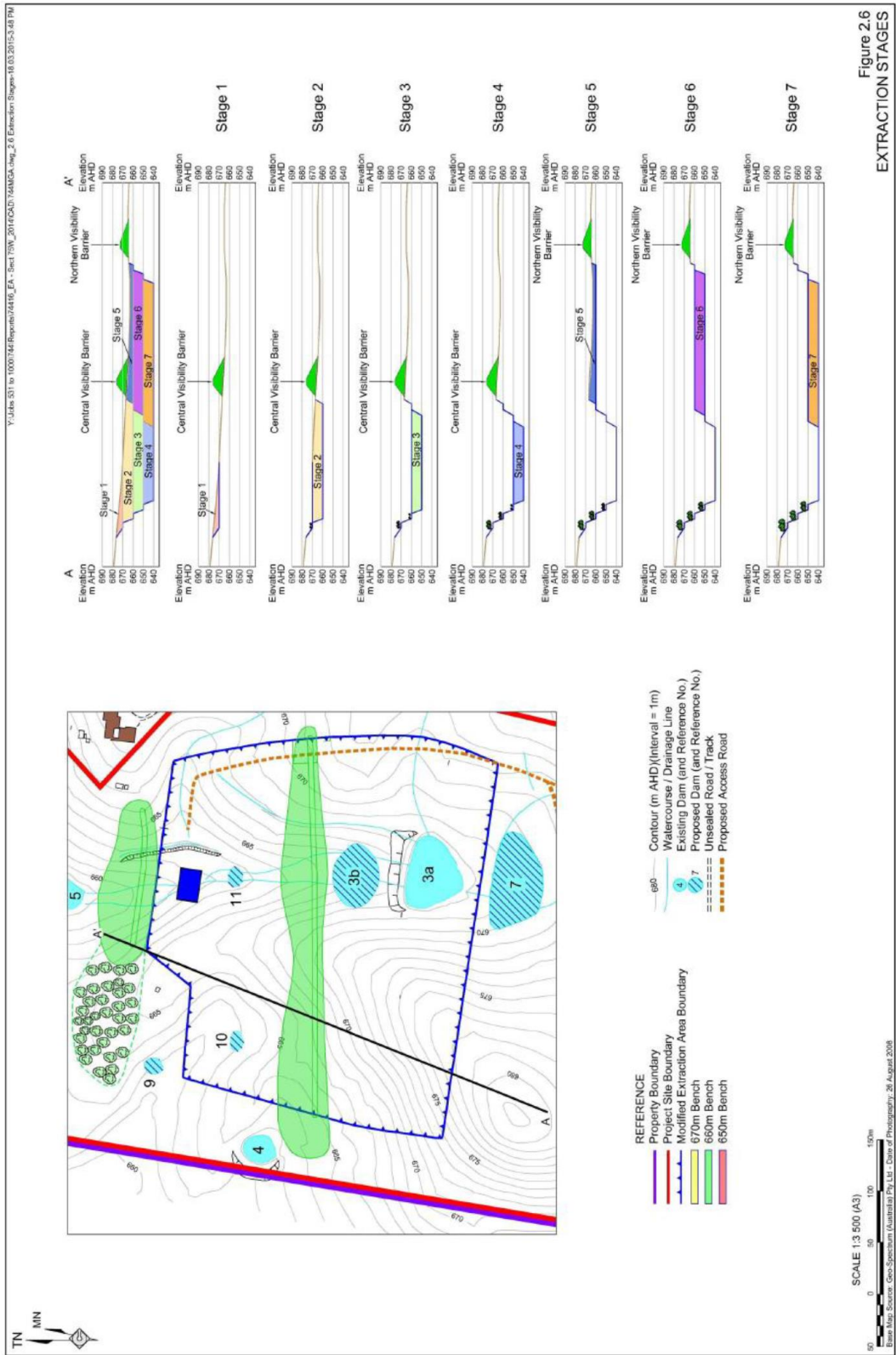


Figure 2 - Extraction Stages



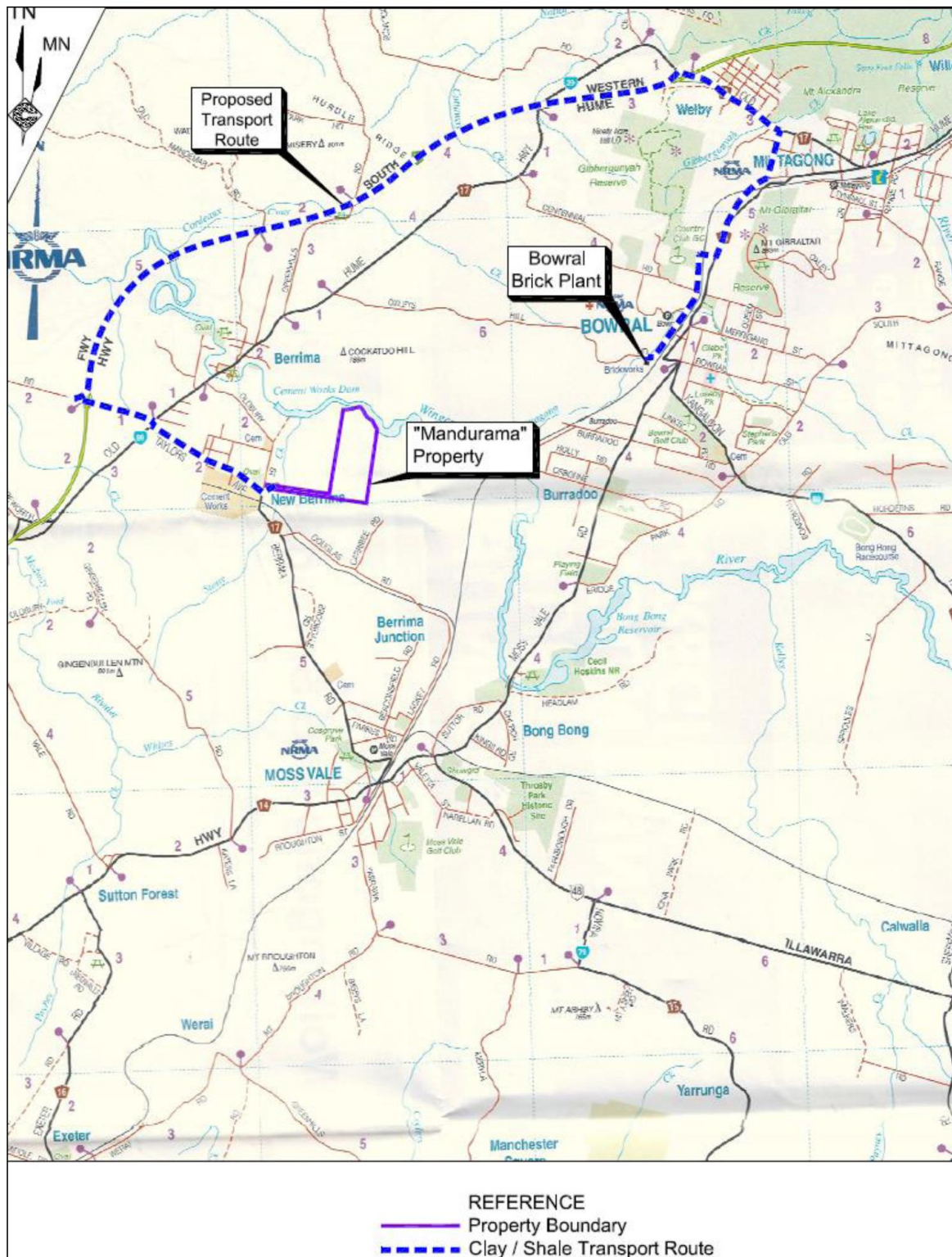
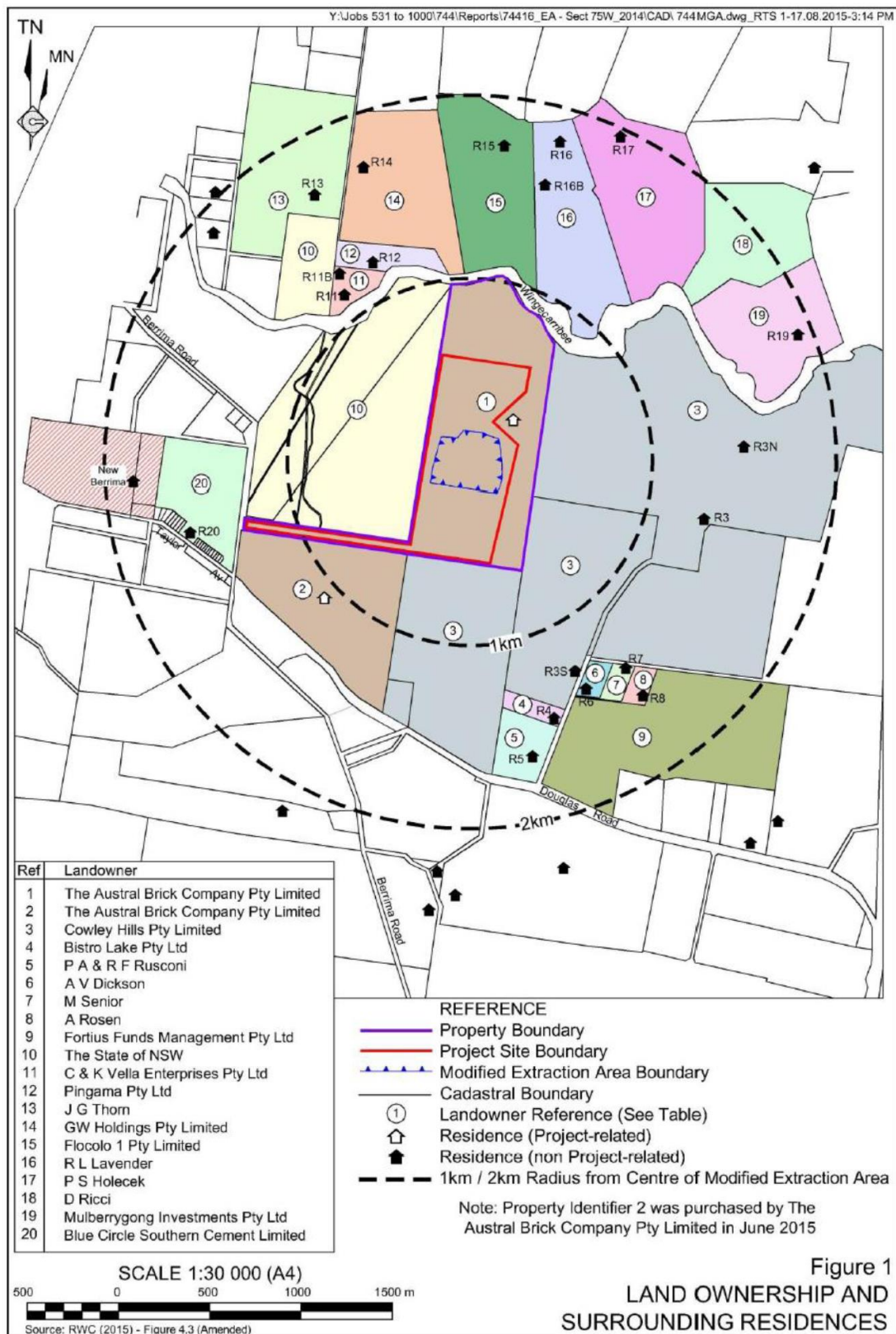


Figure 3 - Haul route



**Figure 4 - Surrounding residences**



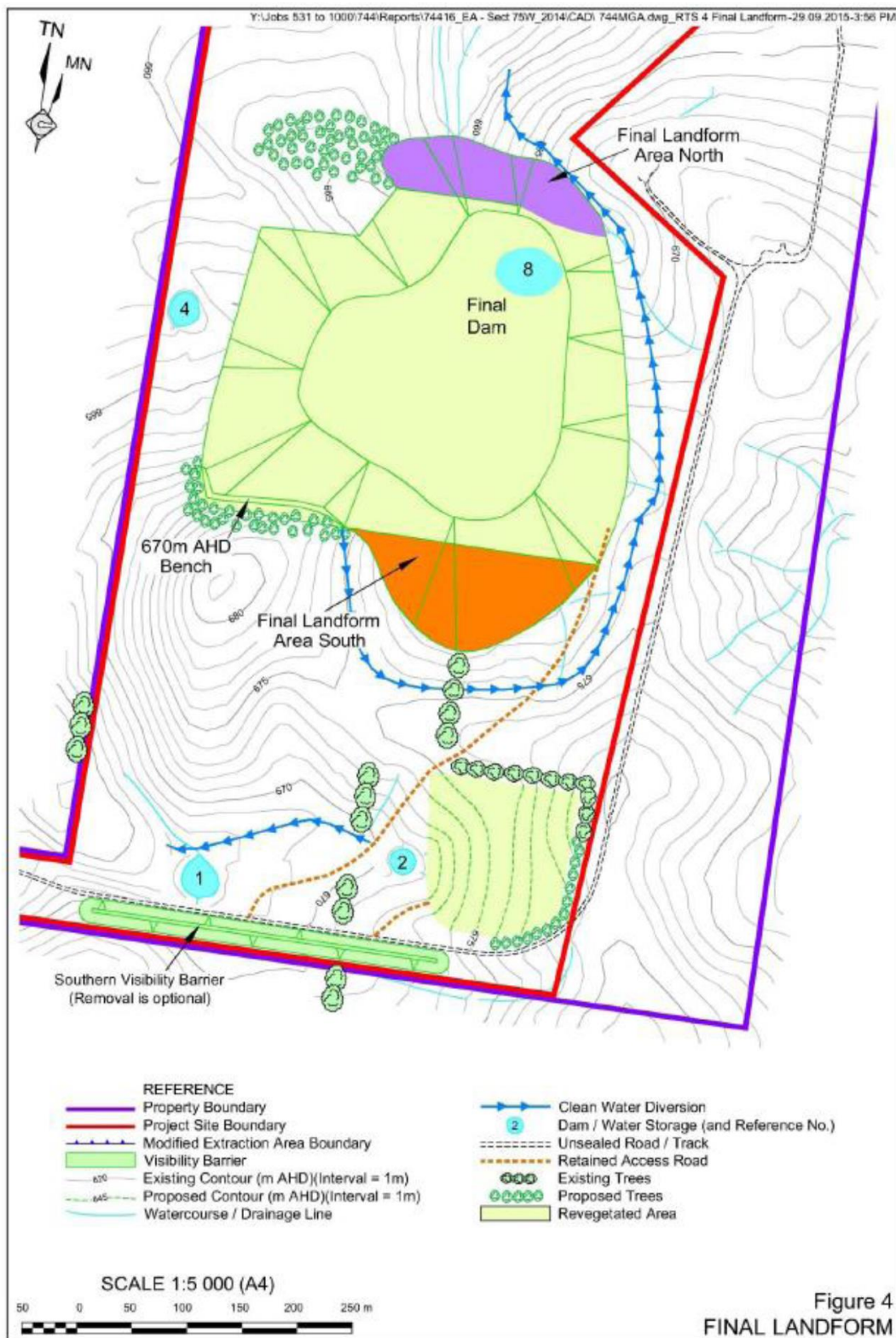


Figure 5 - Rehabilitation Plan

**APPENDIX B: STATEMENT OF COMMITMENTS**

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Desired Outcome	Action	Timing
<b>1. Area of Activities and Operations</b>		
All approved activities are undertaken in the area(s) nominated on the approved plans and figures (unless moved slightly to avoid individual trees).	1.1 Survey and mark the boundaries of the areas of disturbance on the ground.	Prior to any vegetation clearing.
Satisfaction of the requirement of NSW Department of Industry for production data.	1.2 Provide annual production data to NSW Department of Industry - Resources & Energy (and include in the AEMR).	Annually (July).
<b>2. Operating Hours</b>		
Management of operations in accordance with the approved operating hours.	2.1 Design and implement a Notification Protocol to alert all potentially affected residents of the intention to undertake activities outside of normal hours of operation.	During operations.
	2.2 Institute a complaints telephone line for the reporting of complaints (if any) on activities undertaken outside of normal hours of operation.	During operations.
	2.3 Maintain a Complaints Register to record complaints received and actions taken by the Proponent to address the complaints.	During operations.
<b>3. Traffic</b>		
Minimisation of traffic impacts, including road safety.	3.1 Seal the last 400m of the Quarry Access Road from the entrance to the Quarry.	During the construction periods.
	3.2 Cover all loads.	Ongoing.
	3.3 Ensure truck drivers adhere to the existing Austral Bricks Drivers Code of Conduct which identifies the required safety and courtesy requirements for drivers travelling to and from all Austral Bricks quarries.	Ongoing.
	3.4 Adopt all safety procedures during the Berrima Road / access driveway intersection construction and incorporate in the Section 138 Permit sought under the Roads Act 1993.	During the construction periods.
<b>4. Surface Water</b>		
Minimisation of potential impacts on surface water quality and supply of the local watercourse system, particularly the Wingecarribee River.	4.1 Ensure early and progressive revegetation of visibility barriers and rehabilitation of completed extraction areas.	Ongoing.
	4.2 Use of any water sourced from the sedimentation basins for dust suppression within the upslope catchment of a sedimentation basin.	As required.
	4.3 Install sediment control fencing around the visibility barriers under construction and other areas of exposed soil until vegetation has been established.	As required.

Desired Outcome	Action	Timing
<b>4. Surface Water (Cont'd)</b>		
Minimisation of potential impacts on surface water quality and supply of the local watercourse system, particularly the Wingecarribee River. (Cont'd)	4.4 Construct and operate various surface water management controls such as diversion structures and sedimentation basins in accordance with the Water Management Plan.	During the construction periods.
	4.5 Armour potential scour points (e.g. channel inlets/outlets and bends) with rock.	During the construction periods
	4.6 Inspect diversion structures monthly and within 24 hours following any rain event that generates flow in the drains to identify areas of erosion, scour or damage. Repair any problem areas and/or take appropriate stabilising action.	Ongoing.
<b>5. Noise</b>		
Minimisation of the noise impacts attributable to extraction and transportation of clay /shale product from the Quarry.	5.1 Retain the existing tree screen on the eastern side of the extraction area.	Ongoing.
	5.2 Regularly service all equipment to ensure sound power levels of each item remains at or below that nominated for noise modelling purposes.	Ongoing.
	5.3 Ensure all earth-moving equipment are fitted with mid-frequency band reversing alarms.	Ongoing.
<b>6. Flora</b>		
Minimisation of the spread of weeds, on and off Site.	6.1 Quick establishment of a selected cover crop.	During the construction periods.
	6.2 Spray weeds with an authorised herbicide.	As required.
	6.3 Ensure all earthmoving equipment is appropriately cleaned prior to being brought to the Quarry for each campaign.	Prior to each campaign.
<b>7. Visual Amenity</b>		
Reduce visible amenity impacts.	7.1 Plant trees screenings at the eastern side of the surplus overburden stockpile area to screen stockpiles from the east.	During the construction periods
	7.2 Commence progressive rehabilitation of completed faces and all other completed disturbed areas as soon as possible after completion of extraction. Rehabilitation of the southern extraction area wall would be very advanced (13-18 years) and protect against views of extraction faces during Stages 5 to 7.	Ongoing.
<b>8. Air Quality</b>		
Limit the generation of dust and other emissions from Quarry activities.	8.1 Construct vegetated visibility barriers to provide barriers to minimise the spread of dust from the Quarry.	During the construction periods
	8.2 Commence progressive rehabilitation of all disturbed areas as soon as possible after the completion of excavation in that area.	Ongoing.
	8.3 Use water truck to routinely spray unsealed roads, tracks and stockpile areas.	Ongoing, if required.
	8.4 Cover and effectively seal tailgates of trucks leaving the Quarry.	Ongoing.

Desired Outcome	Action	Timing
<b>8. Air Quality (Cont'd)</b>		
Limit the generation of dust and other emissions from Quarry activities. (Cont'd)	8.5 Prohibit all vehicles and machinery from idling unnecessarily.	Ongoing.
	8.6 Maintain all vehicles and machinery in accordance with manufacturers' specifications.	Ongoing.
	8.7 Amend extraction practices as required during adverse wind conditions to minimise the generation and spread of dust from the Quarry.	As required.
	8.8 Minimise drop heights between front-end loader buckets and truck trays through operator training and education on the management of dust.	Ongoing.
	8.9 Apply dust suppressants (e.g. Gluon or TerraControl) on unsealed roads used for product transport.	In the event that sufficient water is not available on Site for dust suppression.
<b>9. Soils, Land Capability and Agricultural Sustainability</b>		
Conservation of topsoil resources.	9.1 Strip all available topsoil to a depth of approximately 0.15m from the surface of each extraction stage.	Ongoing.
	9.2 Wherever practicable, place stripped topsoil directly onto the constructed visibility barriers or areas prepared and awaiting rehabilitation.	Ongoing.
	9.3 Stockpile topsoil around the perimeter of the surplus overburden stockpile area for later reclamation if no areas are available. Limit topsoil stockpiles to no more than 2.0m in height to minimise adverse impacts upon the biological activity of the topsoil.	Ongoing.
	9.4 Broadcast a pasture seed mix to assist with temporary stabilisation if topsoil stockpiles are likely to remain for extended periods.	As required.
	9.5 Avoid excessive handling of soil during the stripping and stockpiling operation and handling when the soils are wet to protect soil structure.	Ongoing.
	9.6 Restrict driving of machinery on the topsoil stockpiles, as well as the respread soil, to maximise soil aggregation and prevent compaction, particularly when the stockpiles are moist.	Ongoing.
	9.7 Place silt-stop fencing or similar immediately down-slope of stockpiles and visibility barriers where required, until a stable vegetation cover is established.	During the construction periods

Desired Outcome	Action	Timing
<b>9. Soils, Land Capability and Agricultural Sustainability (Cont'd)</b>		
Minimise the potential for soil contamination.	9.8 Restrict all refuelling and vehicle maintenance activities to designated areas which are either sealed, bunded or located with access to spill control kits.	Ongoing.
	9.9 Complete regular housekeeping and maintenance of vehicle maintenance areas.	Ongoing.
<b>10. Heritage</b>		
Comply with the provisions of the <i>National Parks and Wildlife Act 1974</i> (as amended).	10.1 Instruct employees, earthmoving contractors, subcontractors, machine operators and their representatives, whether working in the survey area or elsewhere, that in the event of any bone or stone artefacts, or discrete distributions of shell, or any objects of cultural association, being unearthed during earthmoving, work would cease immediately in the area of the find.	Ongoing.
	10.2 Immediately report the find to the Office of Environment and Heritage (OEH) and the relevant Local Aboriginal Land Councils.	As required.
	10.3 In the event that any bone cannot be clearly identified by a qualified archaeologist as being of animal remains, inform the police of its discovery, inform OEH, and inform officials and/or their representatives of the Illawarra Local Aboriginal Land Council, Wodi Wodi Elders Corporation, and Korewal Elouera, Jerrungarugh.	As required.
	10.4 Do not recommence work in the area of the find, until both the police (if unidentified bone has been found) and those officials or representatives have given their permission to do so.	As required.