

Environmental Management Strategy

for the

New Berrima Clay/Shale Quarry

PA08_0212

Approved

Prepared by:



R.W. CORKERY & CO. PTY. LIMITED

March 2016

Approved by
the Secretary's nominee, Howard Reed,
on 13 May 2016

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	NSW Department of Planning and Environment
EMS	Environmental Management Strategy)
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
NATA	National Association of Testing Authorities
OEH	NSW Office of Environment and Heritage
PA	Project Approval
RWC	R.W. Corkery & Co. Pty Limited

KEY FACTS AND FIGURES

Project Areas (approximate)	<p>Quarry Site – 51 ha</p> <p>Extraction Area Stages 1-4 – 5.5 ha</p> <p>Extraction Area Stages 5-7 – 5.0 ha</p> <p>Surplus Overburden Stockpile Area – 1.5 ha</p> <p>Final Landform Area South – 1.4 ha</p> <p>Total Area of Disturbance - 14 ha</p>
Annual Production	Maximum 150 000t per year
Approved Quarry Life	Until 30 June 2045
Capital Investment	Approximately \$1 million
Employment	Approximately four full time equivalent positions
Extraction Equipment	Scraper, bulldozer, haul truck, front-end loader
Extraction Floor	640m AHD
Extraction Stages and Resources	<p>Stages 1 to 4 (southern section of extraction area) Approximately 1.6 million tonnes</p> <p>Stages 5 to 7 (northern section of extraction area) Approximately 2.3 million tonnes</p>
Hours of Operation	<p>Monday to Friday - 7:00am to 5:00pm</p> <p>Saturday - 8:00am to 1:00pm</p> <p>Sundays and Public Holidays – No Operations</p>
Length of Sealing of Quarry Access Road	Approximately 400m (from Berrima Road)
Traffic Volumes (approximate)	<p>Typical day - 0 to 34 truckloads (0 to 68 truck movements)</p> <p>Typical transport campaign day – 17 to 34 truckloads (34 to 68 truck movements)</p> <p>Maximum per day - 68 truckloads (132 truck movements)</p>
Visibility Barrier Dimensions (approximate)	<p>Central Visibility Barrier – approximately 8m to 12m high, 30m to 45m wide, and 420m long (Area = 1.5 ha)</p> <p>Northern Visibility Barrier – approximately 8m to 9m high, 35m to 50m wide, and 160m long (Area = 0.7 ha)</p> <p>Southern Visibility Barrier – up to 4m high, up to 20m wide, and up to 350m long (Area = 0.7 ha)</p>

1. INTRODUCTION

This *Environmental Management Strategy* (“Strategy”) has been prepared by R W Corkery & Co Pty Limited on behalf of The Austral Brick Company Pty Ltd (Austral) for the New Berrima Quarry (the Quarry). The Quarry is located approximately 1.5km east of New Berrima in the Southern Highlands of NSW (**Figure 1**). The Quarry was granted Project Approval (PA) 08_0212 on 7 July 2012, with a modification to PA 08_0212 granted on 15 December 2015, prior to Quarry operations commencing.

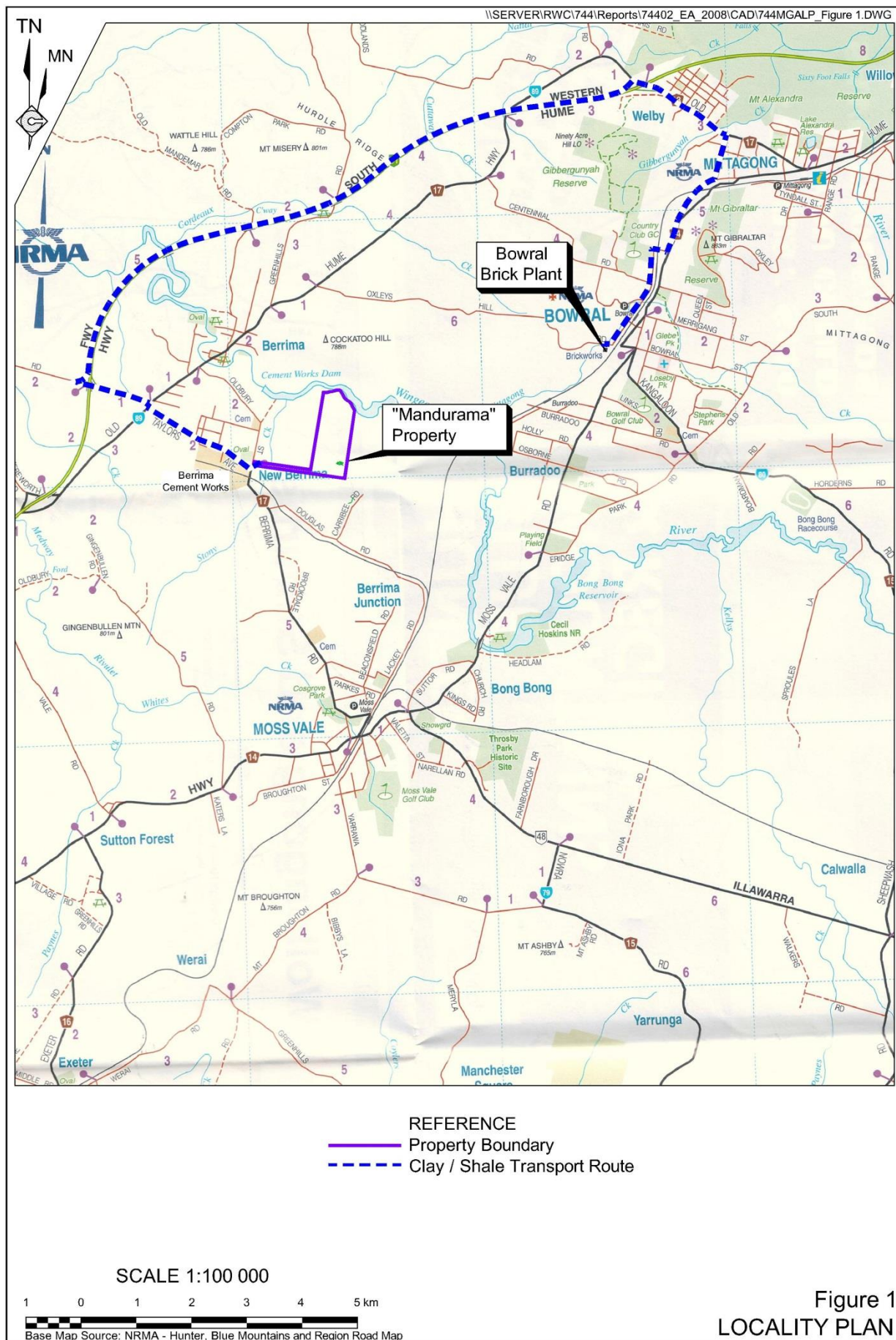
This Environmental Management Strategy (EMS) has been prepared in satisfaction of *PA Condition 5(1)* and describes the following.

- The activities approved under PA 08_0212.
- The legal and other requirements that apply to the Quarry.
- The consultation undertaken during preparation of this Strategy and the accompanying Management Plans.
- The objectives and key performance outcomes for this Plan and the Quarry.
- Key environmental monitoring measures that will be implemented.
- Evaluation of compliance with relevant assessment criteria and responding to non-compliances.
- Complaints handling and response procedures that will be implemented.
- Competence training and awareness.
- Incident reporting procedures.
- Publication of monitoring information.
- Roles and responsibilities.
- Plan review.

The approved Quarry is fully described in the following documents.

- *Environmental Assessment for the New Berrima Clay/Shale Quarry* – R.W. Corkery and Co Pty Limited (RWC 2010).
- *Environmental Assessment to Support a Section 75W Modification of PA08_0212 for the New Berrima Clay/Shale Quarry* – R.W. Corkery and Co Pty Limited (RWC 2015).

This document has been submitted to DPE for approval prior to the commencement of activities. Approval activities will not commence until the document is approved.



2. APPROVED ACTIVITIES AND STAGED OPERATIONS

2.1 APPROVED ACTIVITIES

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

- Construction of visibility barriers to provide visual screening for the quarry operations.
- Establishment of an extraction area to extract clay/shale using standard ripping, pushing and loading techniques.
- Use of an existing Quarry access road and upgrading of two intersections.
- 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 PA 08_0212 are as follows.

- “The Proponent shall not carry out any development in the extraction area below a level of 640m AHD” *PA Condition 2(6)*.
- “The Proponent shall not extract more than 150 000 tonnes of extractive materials from the site in any calendar year” *PA Condition 2(7)*.
- “The Proponent shall 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.

The approved quarry life is until 30 June 2045 and the approved hours of operation are outlined in **Table 1**.

Table 1
Hours of Operation

Day	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

The sequence of extraction throughout the initial stages of the quarry will reflect the need to complete the construction of the central visibility barrier to the north of the southern section of the extraction area (**Figure 2**) using overburden, whilst gaining access to the underlying shale as efficiently as practicable. **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. The approximate sequence plan for extraction is as follows.

- Year 1 – Stage 1 extraction to provide material for central visibility barrier construction. Commence extraction of shale in Stage 2.
- Years 2 to 4 – Complete extraction of shale in Stage 2.
- Years 5 to 14 – Complete Stages 3 and 4 of extraction and complete extraction in southern section of extraction area.
- Years 15 to 30 – Commence extraction in Stage 5 to construct the northern visibility barrier. Complete extraction of Stages 6 and 7 progressively.

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.

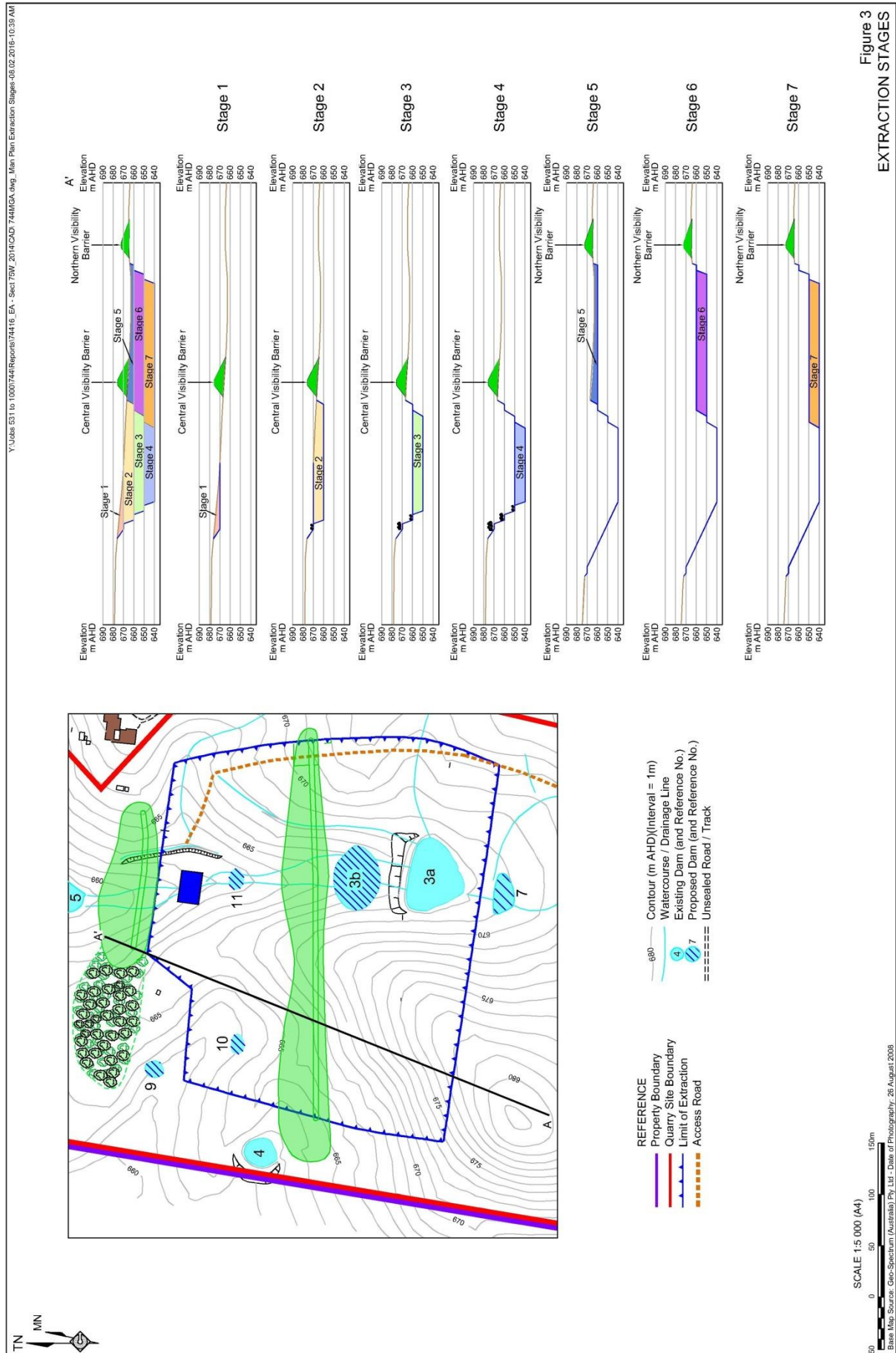
This section describes the overall framework for environmental management for the development and operation of the New Berrima Quarry. This information forms part of the integrated Environmental Management System adopted by Austral for all of its quarries. The EMS addresses the principal strategies to 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 Bowral Quarry has enabled the approach to the planning to be developed and operation of the New Berrima Quarry to be realistic and achievable.

In order to plan for the development and operation of the New Berrima Quarry, Austral has assembled a list of actions required to:

- i) achieve physical commencement of the Quarry before 1 October 2016.
- ii) ensure all operational conditional requirements are undertaken in a timely manner and correctly documented.



Appendix 2 presents a set of planning sheets that list the actions required to achieve physical commencement and to operate the New Berrima Quarry. **Table A2.1** relates to the Project Approval Conditions and **Table A2.2** relates to the Project Approval Statement of Commitments.

Compliance Management and Checking

Austral will operate the New Berrima Quarry with a range of routine checks recorded in the on-site daily activities and check list register. Austral requires all quarry managers to complete a monthly checklist that identifies compliance with relevant conditional requirements. In addition to the Company's internal 6 monthly auditing and checks, Austral is required through *PA08_0212 Condition 5(9)* to commission independent audits of the development consent and related approvals at 3 yearly intervals, i.e. after an initial audit after the first year of extraction operations.

Austral will undertake 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 to be undertaken by Austral are set out in the supporting management plans.

Response to Incidents and Complaints

Austral recognises the benefits of quickly responding to both incidents and complaints, 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 modification 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.

The EMS is supported by a range of management plans and monitoring programs identified in Section 1.1. These are in turn supported by a range of detailed operational procedures developed within Austral's overarching Environmental Management System that describe in detail the tasks to be undertaken by its workforce and contractors to ensure appropriate management of the Quarry.

4. LEGAL AND OTHER REQUIREMENTS

4.1 PROJECT APPROVAL

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 by the Planning Assessment Commission on 15 December 2015. PA 08_0212 includes the conditional requirements that Austral needs to comply with and sets out the specific requirements of this Plan.

This EMS has been prepared in accordance with PA 08_0212 Modification 1 (**Table 2**), and adopts the relevant elements of the *AS/NZS ISO 140001 Environmental Management System 2004* guidelines. This EMS is required to be submitted to the DPE for approval prior to the commencement of construction activities.

Table 2 presents where each relevant conditional requirement identified in PA 08_0212 has been addressed in this document.

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

Page 1 of 4

Schedule	Condition	Plan Section
ENVIRONMENTAL MANAGEMENT STRATEGY		
5(1)	<p>The Proponent shall 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"> 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 describe the procedures that would be implemented to: <ul style="list-style-type: none"> - 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; - respond to emergencies; and e) include: <ul style="list-style-type: none"> - 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. 	<p>Section 14</p> <p>Section 2</p> <p>Section 4</p> <p>Section 15</p> <p>Accompanying Documents</p> <p>Section 6</p>

Table 2 (Cont'd)
Project Approval Conditions

Page 2 of 4

Schedule	Condition	Plan Section
5(2)	<p>The Proponent shall 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.</p> <p>Where any exceedance of these criteria and/or performance measures has occurred, the Proponent shall, at the earliest opportunity:</p> <ol style="list-style-type: none"> take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur; consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary. 	Section 7
5(3)	<p>The Proponent shall ensure that the Management Plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <ol style="list-style-type: none"> detailed baseline data; a description of: <ol style="list-style-type: none"> the relevant statutory requirements (including any relevant approval, licence or lease conditions); any relevant limits or performance measures/criteria; and the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures; a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; a program to monitor and report on the: <ol style="list-style-type: none"> impacts and environmental performance of the project; and effectiveness of any management measures (see (c) above); a contingency plan to manage any unpredicted impacts and their consequences; a program to investigate and implement ways to improve the environmental performance of the project over time; a protocol for managing and reporting any: <ol style="list-style-type: none"> incidents; complaints; non-compliances with statutory requirements; and exceedances of the impact assessment criteria and/or performance criteria; and a protocol for periodic review of the plan. <p><i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>	See Individual Plans

Table 2 (Cont'd)
Project Approval Conditions

Page 3 of 4

Schedule	Condition	Plan Section
5(4)	<p>By the end of June 2013, and annually thereafter, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <ul style="list-style-type: none"> a) describe the development (including rehabilitation) that were 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: <ul style="list-style-type: none"> - the relevant statutory requirements, limits or performance measures/criteria; - the monitoring results of previous years; and - the relevant predictions in the EA; 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. 	Section 14
		Section 14
5(5)	<p>Within 3 months of the submission of an:</p> <ul style="list-style-type: none"> 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 shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary. <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 16
5(6)	<p>The Proponent shall establish and operate a CCC for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version), 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"> • 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. 	Section 12
Reporting		
5(7)	<p>The Proponent shall 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 shall 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 shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.</p>	Section 9

Table 2 (Cont'd)
Project Approval Conditions

Page 4 of 4

Schedule	Condition	Plan Section
Reporting (Cont'd)		
5(8)	The Proponent shall 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 14
Independent Environmental Audit		
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 shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:</p> <ul style="list-style-type: none"> 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 Licence (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; and e) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals. <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 7
5(10)	Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.	Section 7
Access to Information		
5(11)	<p>Following the commencement of development on site under this approval, the Proponent shall:</p> <ul style="list-style-type: none"> a) make the following information publicly available on its website: <ul style="list-style-type: none"> - the EA; - 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. 	Section 14

4.2 ENVIRONMENT PROTECTION LICENCE

Austral is currently applying to the EPA for an environment protection licence for the operation of the Quarry.

Each of the relevant management plans relating to air quality, noise and water will be reviewed (and modified, if necessary) following the receipt of the EPL.

4.3 MINING LEASE

Austral is currently applying for a Mineral Owners Mining Lease for the New Berrima Quarry. Each of the management plans will be reviewed (and modified, if necessary) following the receipt of the Mining Lease.

4.4 ENVIRONMENTAL MANAGEMENT PLANS

Table 3 lists the environmental approval documentation and associated management plans and monitoring programs relevant to Project Approval 08_0212 for the Quarry.

Table 3
Environmental Approval Documentation, Management Plans and Monitoring Program

Title	Approval Date	Review Date
Environmental Assessment	7 July 2012	Not Applicable
Environmental Assessment - Modification	15 December 2015	Not Applicable
Environment Protection Licence	Pending	As required
Noise Management Plan	13 May 2016	As identified by PA Condition 5(4)
Transport Management Plan	13 May 2016	
Air Quality Management Plan	13 May 2016	
Water Management Plan	Pending	
Landscape Management Plan	13 May 2016	
Aboriginal Cultural Heritage Management Plan	13 May 2016	

This document will be updated following the approval of all the above documents.

4.5 LEGISLATION

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

- *Environmental Planning and Assessment Act 1979.*
- *Local Government Act 1993.*
- *Protection of the Environment Operations Act 1997.*
- *Contaminated Land Management Act 1997.*

- *National Parks and Wildlife Act 1974.*
- *Commonwealth National Greenhouse and Energy Reporting Act 2007*
- *Dangerous Goods Act 1975.*
- *Roads Act 1993.*
- *NSW Work Health and Safety Act 2011.*
- *Mine Health and Safety Act 2004.*
- *Protection of the Environment Administration Act 1999.*
- *Threatened Species Conservation Act 1995.*
- *Water Management Act 2000.*
- *Commonwealth Environment Protection and Biodiversity Conservation Act 1999.*
- *Soil Conservation Act 1938.*

4.6 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 - 2007 *Methods for Sampling and Analysis of Ambient Air – Guide to Siting Air Monitoring Equipment.*
- AS 2923 – 1987 *Ambient Air – Guide for Measurement of Horizontal Wind for Air Quality Applications.*
- AS 3580.10.1 – 2003 *Methods for Sampling and Analysis of Ambient Air – Determination of Particulates – Deposited Matter – Gravimetric Method.*
- AS 2922:1987 *Ambient Air – Guide for the Siting of Sampling Units* (NSW DECCW Method AM-1).
- AS1055.1-1997 *Acoustics – Description and Measurement of Environmental Noise – General Procedures.*
- AS 3780-1994 *The storage and handling of corrosive substances.*
- AS 1940 – 2004 and Amendment 1 – 2004 *The Storage and Handling of Flammable and Combustible Liquids.*
- AS 1742 - *Manual of Uniform Traffic Control Devices.*
- AS IEC 60672-2004 *Electroacoustics – Sound Level Meters.*
- ISO 14001 – 2004 *Environmental Management Systems – Requirements with guidance for use.*
- ISO 19011 – 2002 *Guidelines for Quality and/or Environmental Systems Auditing.*

4.7 GUIDELINES

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

- *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* published by Department of Planning in 2007.
- *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 Environment Protection Authority in 2007.
- *NSW EPA Approved Methods and Guidance for Modelling in Assessment of Air Pollutants in NSW* published by Environment Protection Authority in 2005.
- *EPA 454/R-99-005 Meteorological monitoring guidance for regulatory modelling applications* published by United States Environment Protection Authority in 2000.
- *NSW Road Noise Policy* published by Environment Protection Authority in 2011.
- *NSW Industrial Noise Policy* published by Environment Protection Authority in 2000.
- *Waste Classification Guidelines* published by Department of Environment, Climate Change and Water in 1996.

4.8 CONSULTATION

In accordance with *PA Condition 5(1f)*, this EMS is required to 'include copies of any strategies, plans and programs approved under the conditions of this approval...' The various management plans compiled for the Quarry contain a nominated consultation section within each plan relating to consultation with government agencies and the wider community, if appropriate.

In addition to the individual contact with surrounding landowners, Austral will maintain contact with the wider community through the required Community Consultative Committee (CCC). This committee will be established prior to the commencement of site activities. The CCC will meet at intervals considered appropriate by the committee.

5. OBJECTIVES AND OUTCOMES

Table 4 lists Austral's principal objectives and key performance outcomes in the construction and operation of the Quarry. The key performance outcomes will be used to assess progress towards the achievement of the nominated objectives. These objectives and key performance outcomes will be updated following any review or modification of the relevant Management Plans or Monitoring Programs to continually improve environmental performance for the Quarry.

Table 4
Objectives and Key Performance Outcomes – New Berrima Quarry

Page 1 of 3

Objectives	Key Performance Outcomes
Noise, Blasting and Air Quality,	
(a) To ensure compliance with all relevant Project Approval and Environment Protection Licence criteria and reasonable community expectations.	(i) Compliance is achieved with all relevant criteria nominated in the Project Approval 08_0212 and Environment Protection Licence and reasonable community expectations.
(b) To implement appropriate noise management and mitigation measures during all stages of the Project.	(ii) All identified noise management and mitigation measures are implemented to the extent required.
(c) To implement an appropriate attended and unattended noise monitoring program to establish compliance or otherwise with relevant criteria during all stages of the Project.	(iii) All identified monitoring is undertaken in accordance with the relevant procedures and at the relevant intervals.
(d) To implement an appropriate complaints handling and response protocol.	(iv) Complaints (if any) are handled and responded to in an appropriate and timely manner.
(e) To implement continual improvement for investigating, implementing and reporting on reasonable and feasible measures to reduce noise.	(v) An appropriate continual improvement program has been implemented.
(f) To implement an appropriate incident reporting program, if required.	(vi) Incidents (if any) are reported in an appropriate and timely manner.
Soil and Water	
(a) To ensure compliance with all relevant Project approval and Environment Protection Licence criteria and reasonable community expectations.	(i) Compliance with all relevant criteria and reasonable community expectations, as determined in consultation with the relevant government agencies.
(b) To ensure sufficient water is available during all phases of the life of the Quarry for environmental and operation purposes	(ii) Sufficient water is available for all Quarry-related purposes, including for environmental and operational purposes.
(c) To ensure that appropriate sediment and erosion control measures are implemented and maintained.	(iii) All water management structures constructed and maintained in accordance with Landcom (2004) and DECC (2008).
(d) To ensure that appropriate chemical and hydrocarbon management is implemented and maintained.	(iv) All chemicals and hydrocarbons are used in accordance with manufactures instructions, Safety Data Sheet requirements and Australian Standards in a manner that ensure risk of water contamination is reduced to an acceptable level.
(e) To ensure that water within the Site is used in an efficient and environmentally responsible manner.	(v) Water resources are managed in a manner that maximises environmental flows and minimised the potential for adverse impacts to water resources.

Table 4 (Cont'd)
Objectives and Key Performance Outcomes – New Berrima Quarry

Page 2 of 3

Objectives	Key Performance Outcomes
Soil and Water (Cont'd)	
(f) To ensure that an appropriate surface water and groundwater monitoring program is implemented throughout the life of the Quarry.	(vi) Water monitoring programs are sufficiently robust to detect any adverse water quality or quantity impacts associated with the Quarry to allow appropriate adaptive management measures to be implemented.
(g) To ensure that appropriate contingency and emergency management plans are in place and regularly reviewed.	(vii) Contingency and emergency management plans are prepared for all relevant contingencies and regularly reviewed and upgraded.
(h) To implement an appropriate incident reporting program, if required.	(viii) Incidents (if any) reported in an appropriate manner.
(i) To ensure that all relevant water-related information is made available in a timely and accessible manner.	(ix) All water-related information is available in a timely manner on the Quarry website.
Rehabilitation and Landscape Management	
(a) To ensure compliance with all relevant project approval conditions, statements of commitment and reasonable community expectations.	(i) Compliance with all relevant criteria and reasonable community expectations, as determined in consultation with the relevant government agencies.
(b) To implement appropriate progressive rehabilitation and landscape management and mitigation measures during all stages of the Quarry	(ii) All identified rehabilitation and landscape management and mitigation measures implemented.
(c) To appropriately manage site preparation works to ensure that suitable rehabilitation material remains for rehabilitation operations during all stages of the Quarry	(iii) Sufficient, viable rehabilitation materials are available for rehabilitation operations during all stages of the Quarry
(d) To ensure that the visual amenity of residences and public vantage points is not unacceptably impacted by Quarry-related activities.	(iv) Visual amenity management measures implemented and effective in a timely manner.
(e) To implement an appropriate complaints handling and response protocol	(v) Complaints (if any) handled and responded to in an appropriate manner.
(f) To implement appropriate corrective and preventative actions, if required.	(vi) Corrective and preventative actions implemented, if required
(g) To implement an appropriate incident reporting program, if required.	(vii) Incidents (if any) reported in an appropriate manner.
Aboriginal Cultural Heritage	
(a) To ensure compliance with Part 6 of the NPW Act, namely to avoid harm to Aboriginal objects or sites.	(i) Demonstrate due diligence in efforts to identify Aboriginal sites or objects.
(b) To ensure compliance with all relevant project approval conditions, commitments and reasonable community expectations.	(ii) Compliance with all relevant criteria and reasonable community expectations, as determined in consultation with the relevant government agencies.
(c) To engage relevant local Aboriginal stakeholders in Aboriginal heritage management of the Quarry when Aboriginal objects and sites are located.	(iii) Identify Registered Aboriginal Parties in accordance with the OEH guideline document "Aboriginal Heritage Consultation Requirements for Proponents".

Table 4 (Cont'd)
Objectives and Key Performance Outcomes – New Berrima Quarry

Page 3 of 3

Objectives	Key Performance Outcomes
Aboriginal Cultural Heritage (Cont'd)	
(d) To implement appropriate management measures during all stages of the Quarry.	(iv) All nominated management measures, including limits on disturbance, monitoring and stop work procedures, are implemented.
(e) To implement competence training and awareness in relation to cultural heritage management.	(v) Record of competence training undertaken for all personnel.
(f) To implement an appropriate complaints handling and response protocol	(vi) Complaints (if any) handled and responded to in an appropriate manner.
(g) To implement appropriate corrective and preventative actions, if required.	(vii) Corrective and preventative actions implemented, if required
(h) To implement an appropriate incident reporting program, if required.	(viii) Incidents (if any) reported in an appropriate manner.

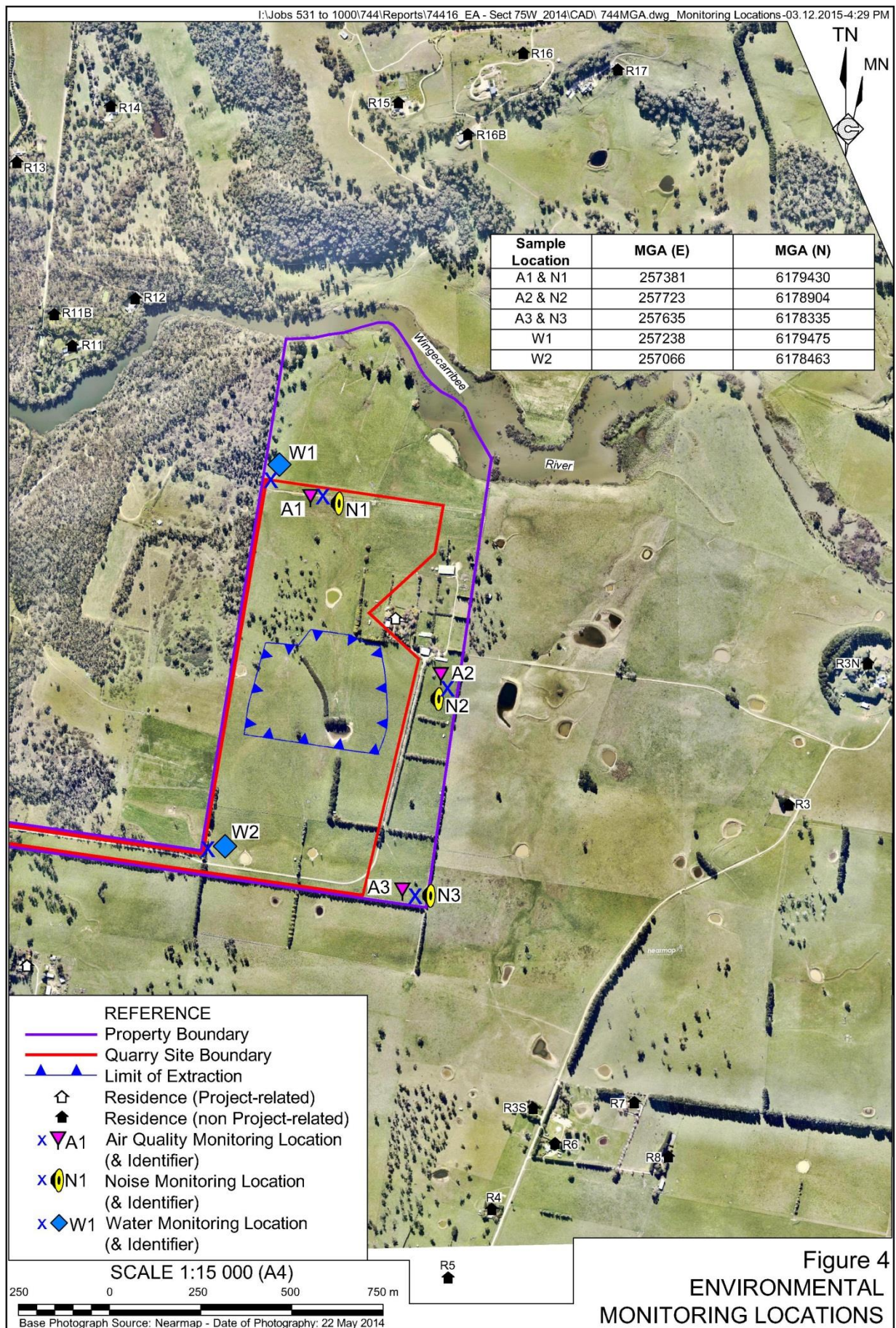
6. MONITORING

In order to meet the objectives and key performance outcomes listed in Section 5, 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 5** presents consolidated summary of the Quarry environmental monitoring program. Monitoring locations are displayed on **Figure 4**.

The Quarry Supervisor in conjunction with the Environmental Officer will be responsible for the implementation and continued monitoring requirements for the Quarry.

Table 5
Consolidated Summary of the Environmental Monitoring Program

Environmental Monitoring Requirement	Monitoring Location (See Figure 4)	Frequency	Criteria	Timing	Characterisation / Quantification	Record of Information
Noise Management Plan						
Attended Noise Monitoring	Locations N1, N2, N3	Quarterly until clay/shale is despatched then annually	38dB(A) at all non-Quarry related receivers (PA 08_0212 Schedule 3(4))	15 minute measurement period during approved operating hours.	L _{Amax} L _{A1} L _{A10} L _{A50} L _{A90} L _{Amin} L _{Aeq}	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.
Air Quality Management Plan						
Deposited dust	Locations A1, A2, A3	Monthly Sampling	Maximum Increase 2g/m ² /month Maximum Total 4g/m ² /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.
Soil and Water Management Plan						
Surface Water Monitoring	W1 & W2	Within 24 hours prior to discharge	Total Suspended Solids - 50mg/L. pH – between 6.5 and 8.5.	Ongoing	Total Suspended Solids and pH	Sampler's name Date and time of sampling Location of sampling Water quality parameter and values Calibration of analysis instruments



7. EVALUATION OF COMPLIANCE

Austral will evaluate compliance in accordance with procedures detailed in each of the Management Plans. In essence, Austral's Environmental Officer will undertake an internal audit of all relevant approval conditions every 6 months, the results of which will be included in the *Annual Review*.

Austral will collate the *Annual Review* as required under *PA Condition 5(4)* and 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) requires that Austral commissions an independent audit of the Quarry:

- with one year to commencement of the on-site activities; and
- every three years thereafter

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*.

8. CORRECTIVE AND PREVENTATIVE ACTIONS

Where an exceedance of relevant criteria or breach of condition(s) is identified, the Quarry Manager, or his/her delegate, will identify a range of corrective and preventative actions 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 Quarry Manager or the Environmental Officer 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:

- 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;
- 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 9) and if required, any complainant. In addition, a copy of all reports will be summarised in the relevant *Annual Review*.

9. INCIDENT REPORTING

In the event that an initial investigation concludes that an exceedance of an environmental criterion or condition was directly attributed to activities associated with the Quarry, the incident will be reported to DPE and EPA within 24 hours of identifying the exceedance or details of the condition non-compliance.

Within 7 days of 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 10. In addition, a summary of all reports will be included in the *Annual Review*.

The Quarry Supervisor will be responsible for incident reporting.

10. COMPLAINTS HANDLING AND DISPUTE RESOLUTION

10.1 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 day per week Community Information Line (1800 635 620) or via the Bowral Brick Plant phone line 4861 3031). This number will be displayed on a sign at the Quarry entrance and on Austral's web site.
- Directly via a dedicated email address nswenvironmental@australbricks.com.au which will be 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 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 Quarry Manager or their 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, the initiation of monitoring or other investigations to verify or otherwise the exceedance or non-compliance with approval or licence condition(s).
4. Initiation of appropriate changes in operating practices or procedures.
5. Conducting a follow-up interview with the complainant to determine their level of satisfaction with the response and the resultant outcome.

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*. The Quarry Supervisor will be responsible for the recording of the complaint, response action requirements and updating of the database and website.

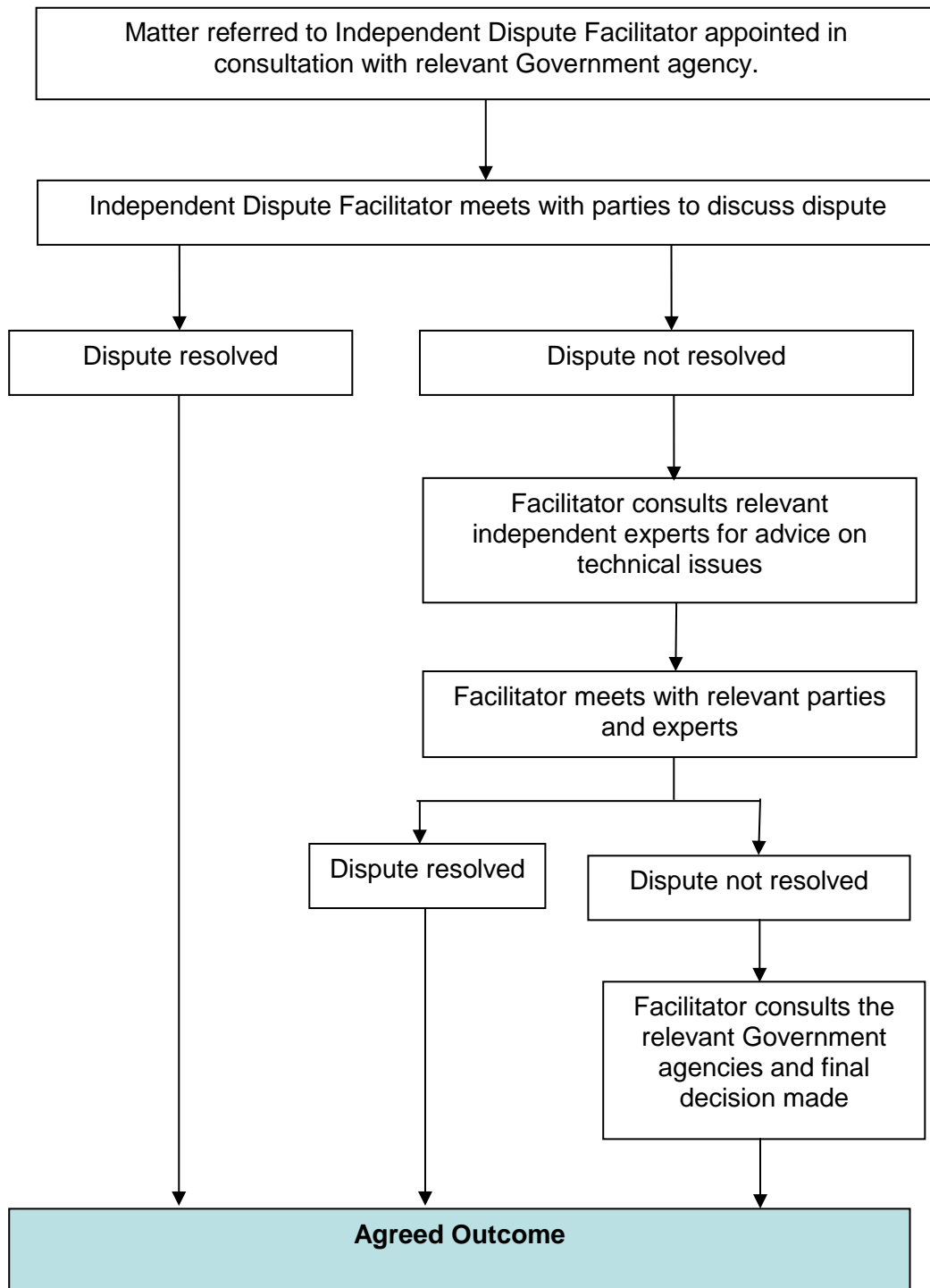
10.2 DISPUTE RESOLUTION

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 Quarry Manager 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 (**Figure 5**).

Figure 5 Independent Dispute Resolution Process



11. EMERGENCY RESPONSE

Table 6 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.

The Quarry Manager will be responsible for all emergency preparation, response and investigation-related activities.

Table 6
Emergency Response Procedures

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

12. STAKEHOLDER AND COMMUNITY CONSULTATION

12.1 STAKEHOLDER CONSULTATION

Austral will undertake consultation with all relevant stakeholders to allow for consideration of all reasonable views and timely feedback to any issues that are raised. The approach to be taken would be constructive to ensure that the required environmental management of the Quarry meets with expectations described in the *Environmental Assessment* and the *Environmental Assessment to Support a Modification* and subsequent review of any approvals. All Austral personnel will be responsible for ensuring that any issues raised are dealt with through the appropriate pathways as stated by the relevant Management Plans.

Relevant stakeholders include, but are not limited to the following.

- Department of Planning and Environment
- Environment Protection Authority
- Office of Environment and Heritage
- NSW Department of Industry - Division of Resources and Energy (DRE)
- Department of Primary Industries (DPI) - Water
- Wingecarribee Shire Council
- Registered Indigenous groups.
- Community Consultative Committee.
- Local community

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

- Periodic community newsletters and meetings.
- Regular meetings of the Community Consultative Committee.
- Individual meetings on request with surrounding landholders and interested community groups.
- Placement of all 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.

12.2 COMMUNITY CONSULTATIVE COMMITTEE

In accordance with PA 08_0212 Condition 5(6) will establish and operate a CCC in accordance with the Guidelines for establishing and operating Community Consultative Committees for mining projects (Department of Planning, 2007, or its latest version). The CCC will be established prior to the commencement of activities within the Quarry Site.

13. COMPETENCE TRAINING AND AWARENESS

All Austral personnel and contractors will undergo environmental management awareness training. Environmental management will be a component of the competency based site induction program. The following areas will be covered in the induction:

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

The induction program would draw upon the various environmental measures outlined in each of the six supporting Management Plans.

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

14. PUBLICATION OF ENVIRONMENTAL PERFORMANCE INFORMATION

Austral will maintain an address for its New Berrima Quarry on its corporate website. This website will incorporate all information nominated in *PA Condition 5(11)* will be made publicly available on Austral website with a summary included in each *Annual Review*. Detailed information on the publication of specific data obtained for the Quarry is outlined within each respective Management Plan.

The Environmental Officer will be responsible for publication of all relevant monitoring information and keeping the website information up to date.

15. ROLES AND RESPONSIBILITIES

Table 7 presents the roles and responsibilities for the implementation of the EMS and accompanying Plans.

Table 7
Roles and Responsibilities

Roles	Responsibility
NSW Manufacturing Manager	Will ensure adequate resources are available to enable implementation of this Strategy and all Environmental Management Plans and Program. <ul style="list-style-type: none"> • Ensure all documentation is reviewed, as required. • Ensure adequate resources are available to enable implementation of the Plan.
Quarry Manager/ Supervisor	Ensure the implementation of this Strategy, including the following. <ul style="list-style-type: none"> • Ensure employees are competent through training and awareness programs. • Monitoring. • Corrective Action and Preventative Action in consultation with the Quarry Manager. • Implementation of all environmental controls outlined in the various Management Plans. • Ensure limits on areas of disturbance are understood and operations are undertaken in accordance with instructions. • Notify the NSW Manufacturing Manager in the event that an Aboriginal object is uncovered (or an object which could be of Aboriginal origin is uncovered).
Environmental Officer	Accountable for the overall environmental performance of the Quarry, including the following. <ul style="list-style-type: none"> • Key performance outcomes of this Strategy. • Evaluation of Compliance. • Corrective and Preventative Actions. • Complaints handling and incident reporting. • Coordinate Environmental Monitoring and publishing of data. • Dispute Resolution. • Review of this Strategy. • Consultation Strategies. • Conduct environmental component of site induction for all employees and contractors. • Report any incidents relevant to Aboriginal heritage. • Coordinate the consultation with the landowners to the north of the Quarry Site. • Inspecting rehabilitation progress.
All personnel	<ul style="list-style-type: none"> • Ensure compliance with this EMS including consultation strategies approved by the Environmental Supervisor. • Ensure training and awareness induction has been undertaken.

16. STRATEGY REVIEW

In accordance with *PA Condition 5(5)*, this *Environmental Management Strategy* 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.

The Environmental Officer will be responsible for the review of this Plan.

Appendices

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Appendix 1 Project Approval

Appendix 2 Actions Required to Achieve Physical
Commencement to Operate the New
Berrima Quarry

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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

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

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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
DRE	Division of Resources and Energy within the NSW Department of Industry
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
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"> causes or threatens to cause material harm to the environment; and/or breaches or exceeds the limits or performance measures/criteria in this approval
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 mitigation versus benefits provided, community views and the nature and extent of potential improvements
Rehabilitation	The restoration of land disturbed by the project to a good condition, and ensure it is safe, stable and non-polluting

RMS	Roads and Maritime Services
SCA	Sydney Catchment Authority
Secretary	Secretary of the Department, or nominee
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	The Northern, Central and Southern Visibility Barriers shown on Figure 1 in Appendix 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 shall 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 shall carry out the project generally in accordance with the:

- (a) EA;
- (b) EA (MOD 1);
- (c) statement of commitments; and
- (d) conditions of this approval.

Notes:

- The general layout of the project is shown in APPENDIX A; and
- The statement of commitments is reproduced in APPENDIX B.

3. If there is any inconsistency between the above documents, 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 shall 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 DRE. 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 shall 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 shall not extract more than 150,000 tonnes of extractive materials from the site in any calendar year.

Extractive Material Transport

8. The Proponent shall 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 may only transport extractive material on the haul route.

STRUCTURAL ADEQUACY

10. The Proponent shall 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 shall 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 shall:
- (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 shall 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 shall:
- (a) provide annual quarry production data to DRE 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

- Prior to carrying out any development on site under this approval, the Proponent shall:
 - engage a registered surveyor to mark out the boundaries of the approved limits of extraction; and
 - submit a survey plan of these boundaries to the [Secretary](#).
- During the project, the Proponent shall 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

- The Proponent shall 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

- 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 (<i>minimum</i>)	675 (m AHD)	30 - 45	420	1.5
Northern Barrier (<i>minimum</i>)	672 (m AHD)	35 - 50	160	0.7
Southern Barrier (<i>minimum</i>)	4 metres above the natural land surface	20	350	0.7
Overburden Stockpile (<i>maximum</i>)	683 (m AHD)	-	-	-

Noise Criteria – Bund Construction

- During the construction of the [Visibility Barriers](#), the Proponent shall ensure that the noise generated on site does not exceed the criteria in Table 1.

Table 1- [Noise Criteria - Bund Construction](#)

Receiver	$L_{Aeq} (15 \text{ min})$ 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

- Except for the period when the [Visibility Barriers](#) are being constructed, the Proponent shall 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 shall 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 shall:
- 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 shall prepare and implement 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:
 - 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.

AIR QUALITY

Air Quality Criteria

9. The Proponent shall 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	^d Criterion
Total suspended particulates (TSP)	Annual	^a 90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³

Table 4 - Short Term Impact Assessment Criteria for Particulate Matter

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

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

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

Notes to Tables:

- ^a Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources);
- ^b Incremental impact (ie incremental increase in concentrations due to the project on its own);
- ^c 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.
- ^d 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.

Operating Conditions

10. The Proponent shall:
- 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

11. The Proponent shall prepare and implement an Air Quality 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](#);
 - 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;
 - describes the proposed air quality management system; and
 - 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.

METEOROLOGICAL MONITORING

12. During the life of the project, the Proponent shall 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 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 shall 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 shall 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 shall 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 shall manage on-site sewage to the satisfaction of Council and EPA.

Storage of Chemicals & Petroleum Products

17. The Proponent shall 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) shall 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 shall prepare and implement 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;
 - 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;

Groundwater Monitoring

18A. The Proponent shall 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 shall 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 shall establish a 0.68 ha tree screen adjacent to the Northern Visibility Barrier, as shown on Figure 1 in Appendix A. The screen shall include native plant species from the *Southern Highlands Shale Woodland Endangered Ecological Community*.

Advertising

20. The Proponent shall 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 shall
- (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 shall:

- (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 shall:
- (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 shall 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 shall 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 shall provide sufficient parking for all project-related traffic, in accordance with Council's parking code.

Operating Conditions

28. The Proponent shall 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 shall prepare and implement 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.
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 shall be obtained from RMS Traffic Operations Unit (TOU) prior to commencing work within the road reserve.

WASTE

31. The Proponent shall:
- (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 shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the [Secretary](#). This plan must:
- (a) be prepared in consultation with OEH and the relevant Local Aboriginal Land Council;
 - (b) be submitted to the [Secretary](#) for approval prior to any ground disturbance; and
 - (c) 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.

LANDSCAPE

Rehabilitation Objectives

33. The Proponent shall rehabilitate the site to the satisfaction of the [DRE](#). 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 DRE 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"> • local native species; and • a landform consistent with the surrounding environment

Progressive Rehabilitation

34. The Proponent shall 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 shall be employed when areas prone to dust generation cannot yet be permanently rehabilitated.

Landscape Management Plan

35. The Proponent shall prepare and implement 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.
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 shall 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 shall 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 shall:

- (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; and
 - (b) give the [Secretary](#) and landowner a copy of the independent 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 shall:

- (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 shall prepare and implement 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.

Adaptive Management

2. The Proponent shall 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 shall, 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 shall 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 shall review the environmental performance of the project to the satisfaction of the [Secretary](#). This review must:
- (a) describe the development (including rehabilitation) that were 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 EA;
 - (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 shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the [Secretary](#).

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

Community Consultative Committee

6. The Proponent shall establish and operate a CCC for the project to the satisfaction of the [Secretary](#). This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version), 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 shall 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 shall 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 shall 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 shall 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 shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
- (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the [Secretary](#);
 - (b) include consultation with the relevant agencies;
 - (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; and
 - (e) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals.

Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the [Secretary](#).

10. Within 3 months of commissioning this audit, or as otherwise agreed by the [Secretary](#), the Proponent shall 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 shall:
- (a) make the following information publicly available on its website:
 - the EA;
 - 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

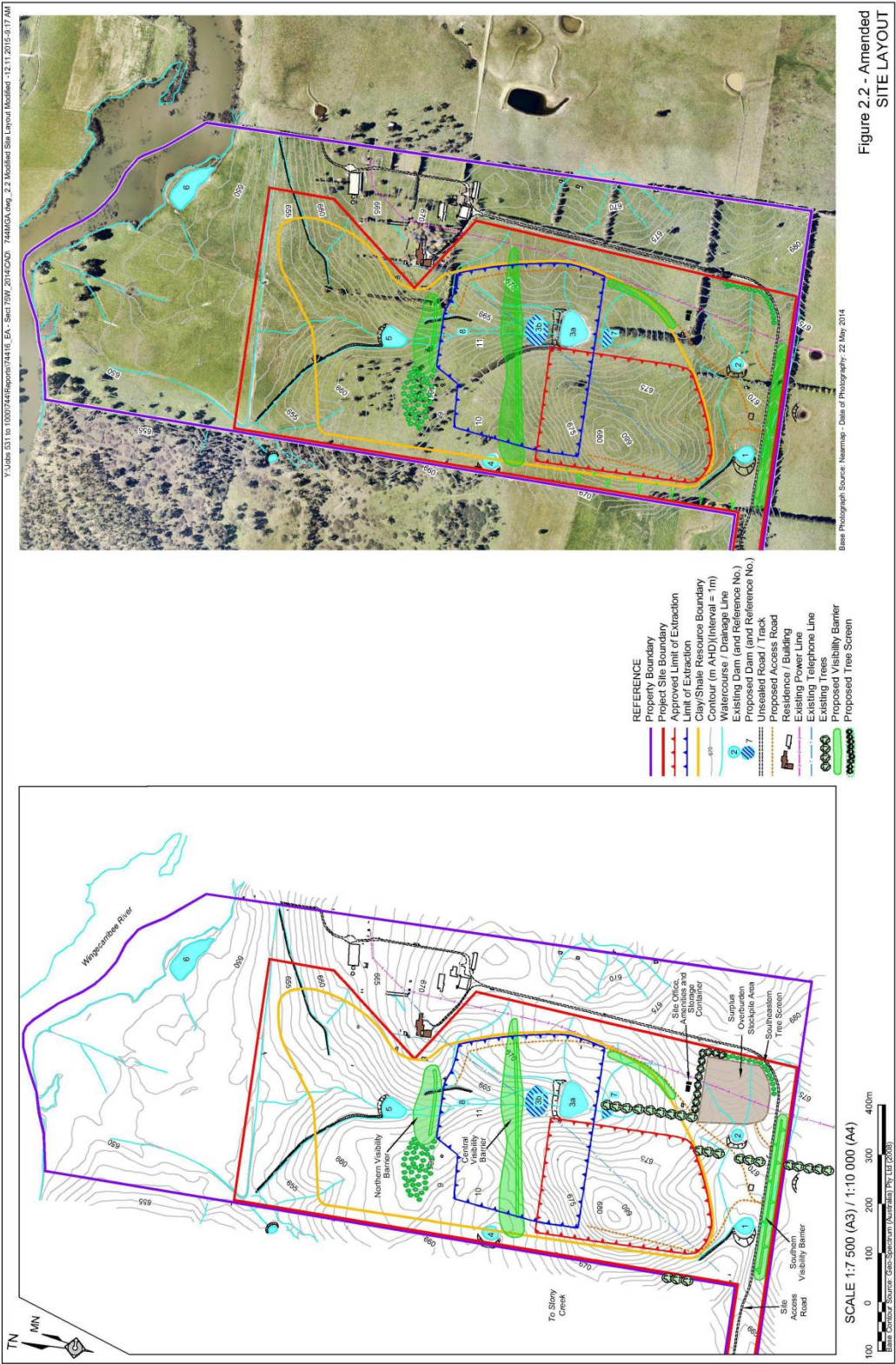


Figure 1 - Project Layout

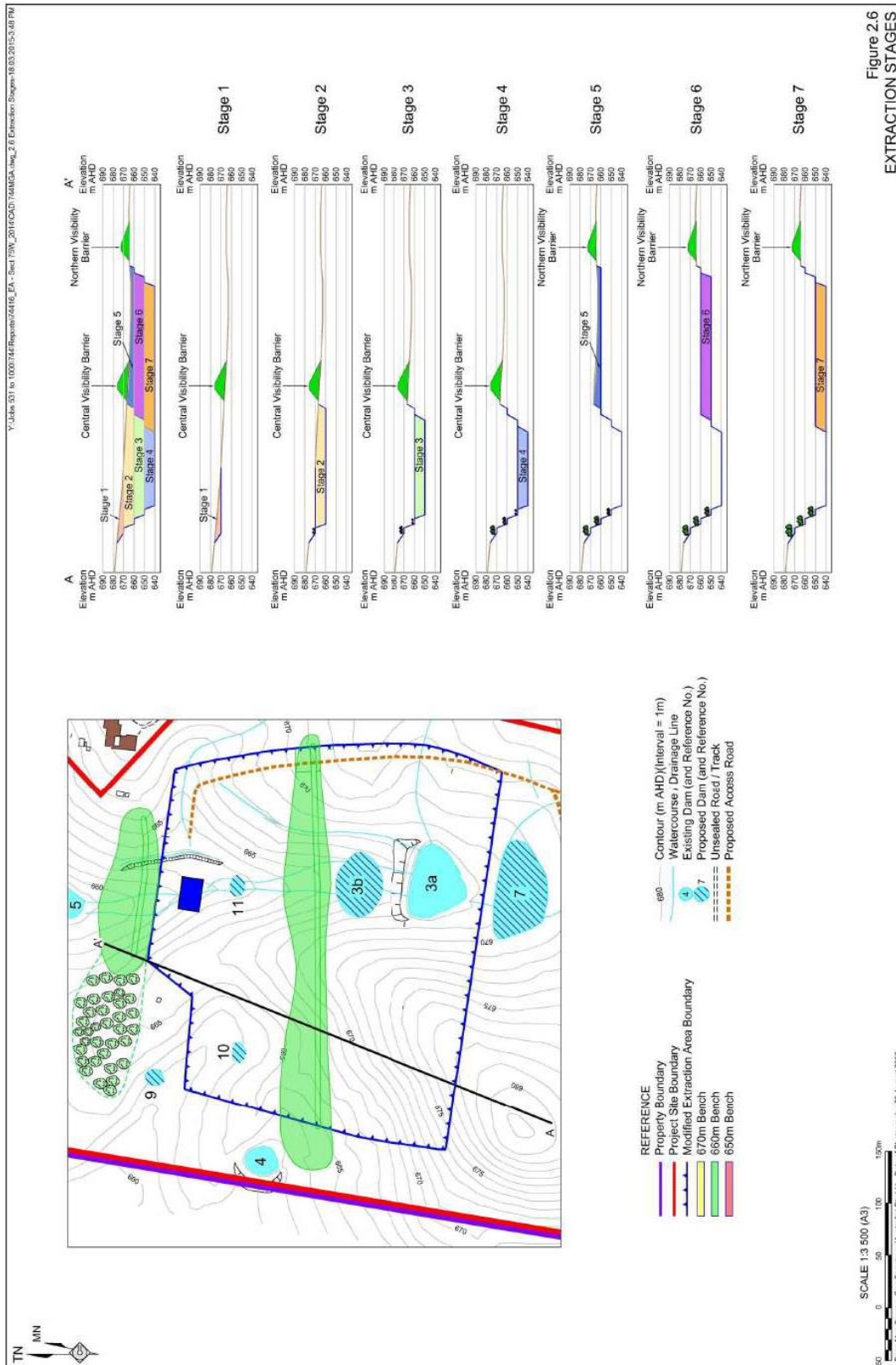


Figure 2 - Extraction Stages

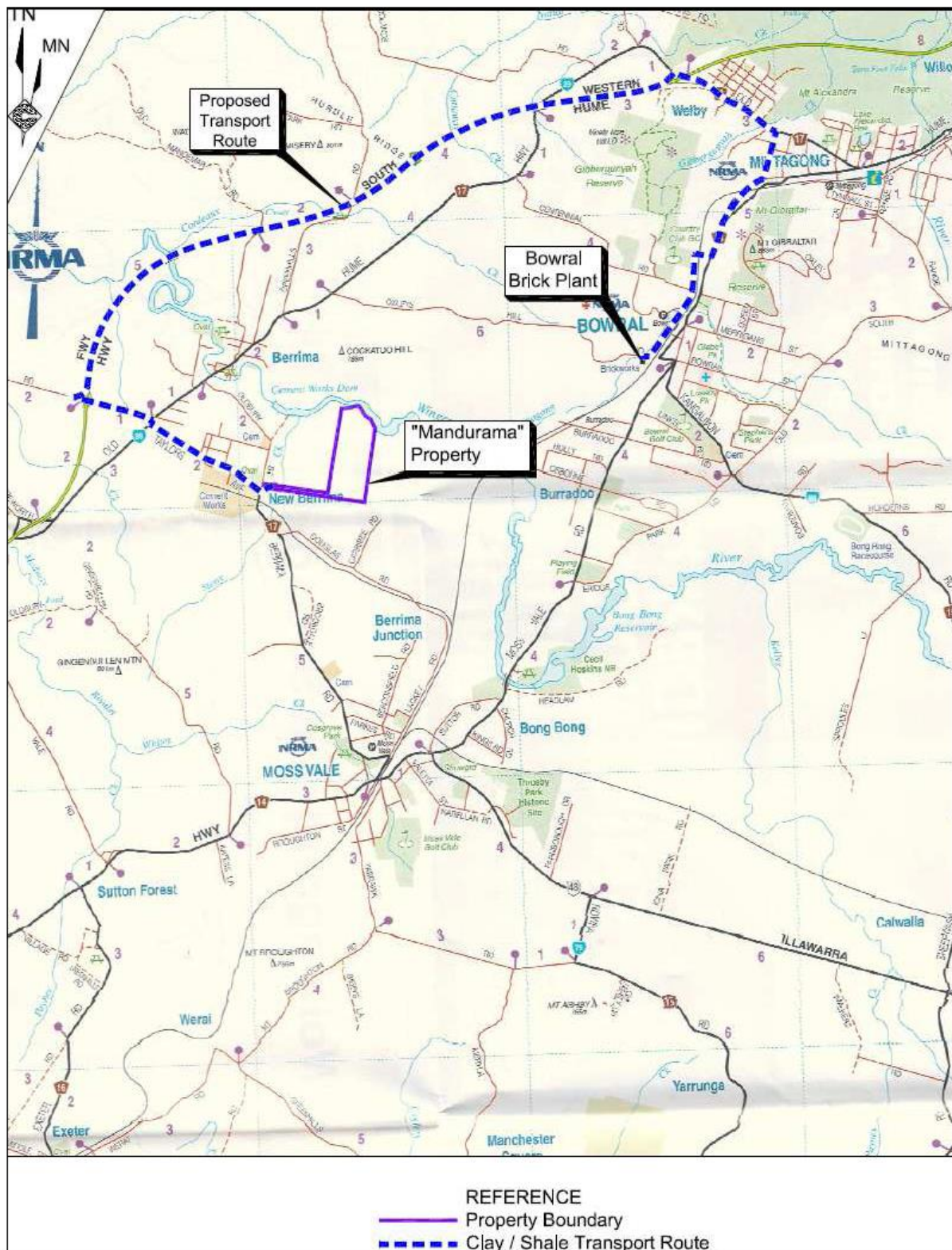


Figure 3 - Haul route

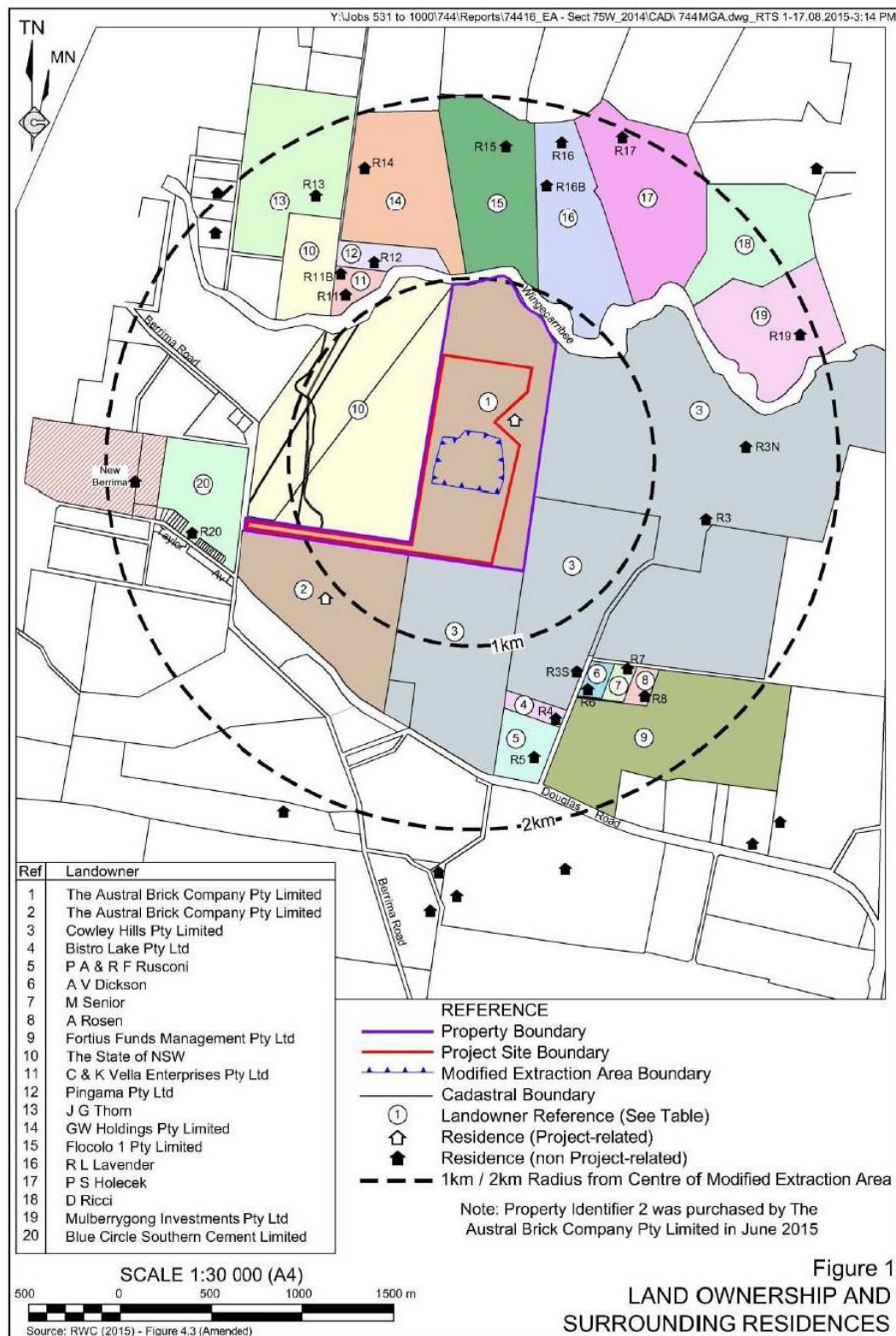


Figure 4 - Surrounding residences

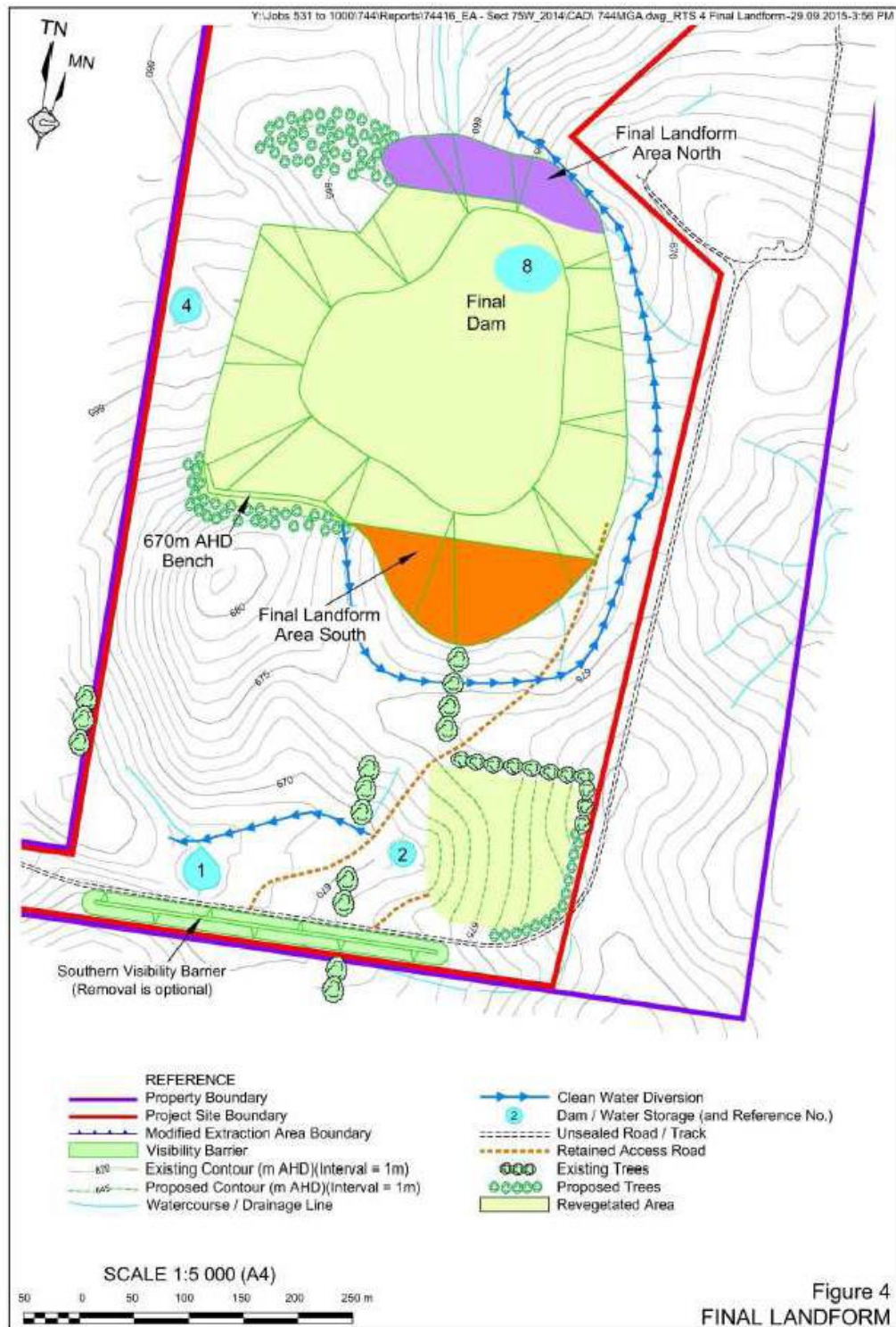


Figure 5 - Rehabilitation Plan

APPENDIX B: STATEMENT OF COMMITMENTS

Page 1 of 4

Desired Outcome	Action	Timing
1. Area of Activities and Operations		
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).
2. Operating Hours		
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.
3. Traffic		
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.
4. Surface Water		
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
4. Surface Water (Cont'd)		
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.
5. Noise		
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.
6. Flora		
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.
7. Visual Amenity		
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.
8. Air Quality		
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
8. Air Quality (Cont'd)		
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.
9. Soils, Land Capability and Agricultural Sustainability		
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
9. Soils, Land Capability and Agricultural Sustainability (Cont'd)		
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.
10. Heritage		
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.

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Appendix 2

Actions Required to Achieve Physical Commencement to Operate the New Berrima Quarry

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Table A2.1

**New Berrima Quarry: Project Approval Conditions –
Actions Required to Achieve Physical Commencement and to Operate the New Berrima Quarry**

Page 1 of 4

Schedule/ Condition	Condition Requirement	Action Required	Documentation	Who	Timing
Actions Required to Achieve Physical Commencement of the New Berrima Quarry					
3(1)	Mark out extraction area boundary	a) Engage a surveyor to mark out approved limit of extraction b) Submit survey plan	Survey plan	QM	April 2016
3(3 & 3A)	Construct visibility barriers	Construct visibility barriers to specified dimensions prior to carrying out quarrying operations	Plan continues location and dimensions.	QM	Commence August 2016
3(8)	Noise Management Plan	Prepare Noise Management Plan, submit to DPE prior to construction of visibility barriers	Noise Management Plan	RWC	February 2016
3(9)	Air Quality criteria	Install dust deposition gauges in accordance with AQMP/Australian Standards	Monitoring Procedures Manual	EO	June 2016
3(11)	Air Quality Management Plan	Prepare Air Quality Management Plan, submit to DPE prior to construction of visibility barriers	AQMP	RWC	March 2016
3(12)	Meteorological monitoring	Establish an on-site meteorological station that complies with Approved Methods for Sampling of Air Pollutants in New South Wales	Photograph of installed station and Record from supplier	EO	March 2016
3(8)	Water Management Plan	Prepare Water quality plan, submit to DPE prior to construction of visibility barriers	Water Management Plan	RWC/SEEC	March 2016
3(29)	Transport Management Plan	Prepare Transport Management Plan, submit to DPE prior to carrying out quarrying operations	Transport Management Plan	RWC	March 2016
3(5)	Landscape Management Plan	Prepare Landscape Management Plan, submit to DPE prior to carrying out any development	Landscape Management Plan	RWC	March 2016
5(1)	Environmental Management Strategy	Prepare Environmental Management Strategy, submit to DPE prior to commencement of construction activities	Environmental Management Strategy	RWC	March 2016
3(32)	Aboriginal Heritage Management Plan	Prepare Aboriginal Heritage Management Plan, submit to DPE prior to ground disturbance	Aboriginal Heritage Management Plan	RWC	March 2016

QM = Quarry Manager

QS = Quarry Supervisor

EO= Environmental Officer

Table A2.1 (Cont'd)
New Berrima Quarry: Project Approval Conditions –
Actions Required to Achieve Physical Commencement and to Operate the New Berrima Quarry

Page 2 of 4

Schedule/ Condition	Condition Requirement	Action Required	Documentation	Who	Timing
Actions Required to Achieve Physical Commencement of the New Berrima Quarry (Cont'd)					
5(6)	Community Consultative Committee	Establish and operate CCC prior to development	Correspondence	EO	July 2016
5(11)	Access to information	Make available EA, approvals, plans, monitoring results, complaints register, CCC meeting minutes, annual reviews, independent environmental audits on website	Website	EO	Establish prior to CCC Formation
Actions Required to Operate New Berrima Quarry					
3(6)	Operating hours	Comply with Operating hours at all times.	Daily Record Sheet	QM	Ongoing
2(15a)	Provide annual production data	Use standard form to provide annual production data to DRE	DRE annual production form	QM	After 30 June each year
2(15b)	Provide annual production data	Include annual production data in Annual Review	Annual Review	EO	Annually
3(4,5)	Noise criteria	Carry out noise monitoring	Monitoring Report	EO	Quarterly (until clay/shale transport commences) – thereafter annually
3(7c)	Maintain noise suppression equipment	Ensure mid frequency band reversing alarms fitted to all mobile equipment	Monthly checklist	QM	Ongoing
		Ensure maintenance of equipment to ensure noise attenuation e.g. mufflers	Monthly checklist	QM	Ongoing
3(7d)	Assess noise monitoring data	Ensure noise monitoring data demonstrates compliance with criteria	Internal compliance audit report	EO	Following Survey
3(10)	Minimise dust emissions	Implement dust control measures in accordance with AQMP	Monthly checklist	QM	Ongoing
3(14)	Water discharges	Ensure compliance with EPL	Discharge Records	EO	Ongoing

QM = Quarry Manager

QS = Quarry Supervisor

EO= Environmental Officer

Table A2.1 (Cont'd)
New Berrima Quarry: Project Approval Conditions –
Actions Required to Achieve Physical Commencement and to Operate the New Berrima Quarry

Page 3 of 4

Schedule/ Condition	Condition Requirement	Action Required	Documentation	Who	Timing
2(8)		Ensure hourly trucks leaving Quarry < 8. Ensure daily trucks leaving Quarry < 68.	Daily Truck Records	QM	Ongoing
3(note)	Obtain necessary water licences	Determine if water licences required and obtain if necessary	Not required	EO	Ongoing
3(15)		Ensure sufficient water available for on-site use.	Monthly checklist (with Dam Capacities)	QM	Ongoing
3(17)	Storage of Chemicals & Hydrocarbons	Ensure chemicals/hydrocarbons stored/ banded in accordance with standards	Monthly Checklist	QM	Ongoing
3(18A)	Groundwater Monitoring	Install 3 pairs of nested piezometers prior to quarry floor reaching 660m AHD	Record of piezometer construction	EO	Before extraction is below 660m AHD
3(19)	Vegetate visibility barriers	Vegetate visibility barriers after construction	Record of revegetation and photographs	EO	Following Revegetation
3(19A)	Native tree screen	Establish native tree screen adjacent to planned location of northern visibility barrier prior to transporting any product from site	Record of plantings and photographs	EO	Dec 2016
3(23)	Road upgrades (local roads)	Prior to transporting any extractive material: Construct site access road junction with Berrima Road. Construct raised concrete median in Berrima Road on south bound approach to MR372. Provide appropriate traffic signage and line marking.	Design and construction Plans and works as completed drawings.	QM	Dec. 2016
3 (24)	Road upgrades (main roads)	Pay to Council cost of upgrade of Berrima Road/Taylor Avenue junction	Correspondence from Council and record of payments.	QM	When Council commences upgrade
3(25)	Haulage Route and Bowral Plan	Ensure all truck drivers <u>always</u> comply with this requirement.	Daily Road Sheets	Truck drivers	Ongoing

QM = Quarry Manager

QS = Quarry Supervisor

EO= Environmental Officer

Table A2.1 (Cont'd)
New Berrima Quarry: Project Approval Conditions –
Actions Required to Achieve Physical Commencement and to Operate the New Berrima Quarry

Page 4 of 4

Schedule/ Condition	Condition Requirement	Action Required	Documentation	Who	Timing
3(27)	Parking	Provide sufficient parking for all project-related traffic	Photograph	QM	Ongoing
3(28)	Transport conditions	Erect signs to ensure speed limit of 30km/h, ensure loads covered, reduce tracking of dirt onto public roads	Monthly checklist	QM	Ongoing
3 (31a, 31d, 31e)	Waste management	Monitor waste generated by the Quarry	Monthly Waste Record Sheet	QS	Ongoing
		Lawfully dispose of waste	Monthly Waste Record Sheet	QS	Ongoing
		Report waste management and minimisation in Annual Review	Annual Review	EO	Annually
3(34)	Progressive rehabilitation	Rehabilitate progressively as soon as reasonably practicable following disturbance	Rehabilitation Records and Photographs	EO	Ongoing
5(4)	Annual Review	Review environmental performance annually	Annual Review	EO	Annually
5(8)	Environmental reporting	Provide regular environmental performance reporting on website	Website	EO	Ongoing
5(9)	Independent Environmental Audit	Commission independent environment 1 year after extraction commences and then every 3 years	Correspondence	EO	Ongoing

QM = Quarry Manager

QS = Quarry Supervisor

EO= Environmental Officer

Table A2.2
New Berrima Quarry: Project Approval Statement of Commitments –
Actions Required to Achieve Physical Commencement and to Operate the New Berrima Quarry

Page 1 of 1

Commitment	Commitment Description	Actions Required	Documentation Required	Who	Timing
Actions Required to Achieve Physical Commencement of the New Berrima Quarry					
2.2	Complaints line	Institute a complaints phone line – already available	Available on website	-	Completed
Actions Required to Operate New Berrima Quarry					
2.3	Complaints register	Maintain a complaints register	Complaints register	EO	Ongoing
3.1	Seal part Quarry Access Road	Seal 400m of Quarry Access Road from entrance to the Quarry during construction period	Plans and Photographs	QM	Dec. 2016
3.3	Drivers Code of Conduct	Ensure drivers sign/adhere to Code of Conduct	Checklist Monthly		
4.3	Sediment fencing	Install sediment control fencing around visibility barriers and other exposed soil until vegetation established	Plan of fencing installed and photographs	QS	Ongoing
4.5	Armour scour points	Armour potential scour points e.g. channel inlets/outlets and bends with rock during construction period	Plan of works and photographs	QS	
4.6	Inspect water diversion structures	Inspect diversion structures monthly and within 24 hours following rain that generates flow	Monthly Checklist	QM	Ongoing
6.2	Spray weeds	Spray weeds with an authorised herbicide as required	Plan of spraying	EO	Ongoing
7.1	Plant tree screen	Plant tree screen at eastern side of surplus overburden stockpile area during construction	Record of planting and photographs	QS	April 2017
9.1, 9.2	Strip topsoil	Strip topsoil to 0.15m depth, place directly on visibility barriers or areas awaiting rehabilitation if possible	Plan of Stockpiles	QS	Ongoing
9.3, 9.4	Topsoil stockpiles	Stockpile topsoil around surface overburden storage area if necessary, limit height to 2m, broadcast pasture seed mix if stockpiles likely to remain for extended periods	Plan of Stockpiles and Photographs	QA	Ongoing
9.8	Refuelling and maintenance	Restrict refuelling and vehicle maintenance to designated area	Photograph and Plan	QS	Ongoing
10.1	Aboriginal heritage	Instruct all staff to cease work immediately if bone, stone artefacts or any object of cultural association is unearthed	Site Induction Notes	QM	Ongoing

QM = Quarry Manager

QS = Quarry Supervisor

EO= Environmental Officer

Note: Commitments that duplicate a Project Approval condition have not been included in table.

Issue Date: 18 March 2016

Approval Date: 13 May 2016

Review Date: in accordance with Section 16

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