



ABN: 52 000 005 550

2020 Annual Review

for the

New Berrima Clay/Shale Quarry

Project Approval PA08_0212
Mining (Mineral Owner) Lease 6

Prepared in Conjunction with:



R.W. CORKERY & CO. PTY LIMITED

February 2021

This page has intentionally been left blank



ABN: 52 000 005 550

2020 Annual Review

for the

New Berrima Clay/Shale Quarry

Prepared by:

The Austral Brick Company Pty Limited
ABN: 52 000 005 550
Wallgrove Road,
HORSLEY PARK NSW 2164
PO Box 6550
WETHERILL PARK NSW 1851

Telephone: (02) 9830 7706
Email: compliance-ab@australbricks.com.au

Prepared in Conjunction with:

R.W. Corkery & Co. Pty Limited
Geological & Environmental Consultants
ABN: 31 002 033 712

Brooklyn Office:

1st Floor, 12 Dangar Road
PO Box 239
BROOKLYN NSW 2083

Telephone: (02) 9985 8511
Email: brooklyn@rwcorkery.com

Orange Office:

62 Hill Street
ORANGE NSW 2800

Telephone: (02) 6362 5411
Email: orange@rwcorkery.com

Brisbane Office:

Level 54, 111 Eagle Street
BRISBANE QLD 4000

Telephone: (07) 3205 5400
Email: brisbane@rwcorkery.com

Ref No. 744/32

February 2021



R. W. CORKERY & CO. PTY. LIMITED

This Copyright is included for the protection of this document

COPYRIGHT

© R.W. Corkery & Co. Pty Limited 2021
and

© The Austral Brick Company Pty Limited 2021

All intellectual property and copyright reserved.

Apart from any fair dealing for the purpose of private study, research, criticism or review, as permitted under the Copyright Act, 1968, no part of this report may be reproduced, transmitted, stored in a retrieval system or adapted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without written permission. Enquiries should be addressed to R.W. Corkery & Co. Pty Limited.



Title Block

Name of Operation	New Berrima Clay/Shale Quarry
Name of Operator	The Austral Brick Company Pty Limited
Project Approval #	08_0212
Name of holder of Project Approval	The Austral Brick Company Pty Limited
Mining Lease #	M(MO)L6
Name of holder of mining lease	The Austral Brick Company Pty Limited
Water licence #	Not Required
Name of holder of water licence	Not Required
MOP/RMP start date	19 September 2018
MOP/RMP end date	31 August 2025
Annual Review start date	1 January 2020
Annual Review end date	31 December 2020
<p>I, Peter Young-Whitford, certify that to the best of my knowledge this audit report is a true and accurate record of the compliance status of The Austral Brick Company Pty Limited for the period 1 January 2020 to 31 December 2020 and that I am authorised to make this statement of behalf of The Austral Brick Company Pty Limited.</p> <p><i>Note.</i></p> <p>a) <i>The Annual Review is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p>b) <i>The Crimes Act 1900 contains other offences relating to false and misleading information: Section 192G (Intention to defraud by false or misleading statement – maximum penalty 5 years imprisonment); Section 307A, 307B and 307C (false or misleading application/information/documents – maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
Name of authorised reporting officer	Peter Young-Whitford
Title of authorised reporting officer	Raw Materials and Mining Manager
Signature of authorised reporting officer	
Date	26 February 2021

This page has intentionally been left blank



CONTENTS

	Page
1. STATEMENT OF COMPLIANCE	1
2. INTRODUCTION.....	2
2.1 OVERVIEW OF OPERATIONS	2
2.2 SCOPE AND FORMAT	2
2.3 KEY PERSONNEL CONTACT DETAILS	2
3. APPROVALS	6
4. OPERATIONS SUMMARY	7
4.1 CONSTRUCTION ACTIVITIES	7
4.2 EXTRACTION OPERATIONS	7
4.3 OTHER OPERATIONS	7
4.4 NEXT REPORTING PERIOD	11
5. ACTIONS REQUIRED FROM PREVIOUS ANNUAL REVIEW	14
6. ENVIRONMENTAL PERFORMANCE.....	15
6.1 INTRODUCTION	15
6.2 METEOROLOGICAL MONITORING.....	16
6.3 AIR QUALITY.....	16
6.4 ABORIGINAL HERITAGE.....	21
6.5 BIODIVERSITY	22
6.6 WASTE MANAGEMENT	22
7. WATER MANAGEMENT	23
7.1 WATER TAKE.....	23
7.2 SURFACE WATER.....	23
7.3 GROUNDWATER	27
8. REHABILITATION	30
8.1 REHABILITATION PERFORMANCE DURING THE REPORTING PERIOD	30
8.2 ACTIONS FOR THE NEXT REPORTING PERIOD	30
9. COMMUNITY	31
9.1 COMMUNITY COMPLAINTS	31
9.2 COMMUNITY LIAISON.....	31
10. INDEPENDENT AUDIT	32
11. INCIDENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD	34
12. ACTIVITIES TO BE COMPLETED IN THE NEXT REPORTING PERIOD.....	35



CONTENTS

	Page
APPENDICES	
Appendix 1 Compliance Review of Project Approval 08_0212.....	A1-1
Appendix 2 Compliance Review of M(MO)L6	A2-1
Appendix 3 Meteorological Data Recorded during 2020	A3-1
Appendix 4 Ecological Compliance Report for Intersection Upgrade	A4-1
FIGURES	
Figure 1 Locality Plan	3
Figure 2 Approved Layout – New Berrima Clay/Shale Quarry	4
Figure 3 Surrounding Land Ownership	5
Figure 4 Activities During the 2020 Reporting Period	8
Figure 5 Planned Activities - 2021	12
Figure 6 Environmental Monitoring Locations	17
Figure 7 Monthly Wind Roses 2020	18
Figure 8 Deposited Dust Monitoring Results.....	20
Figure 9 Water Quality Monitoring Results – Key Parameters.....	25
TABLES	
Table 1 Statement of Compliance.....	1
Table 2 New Berrima Clay/Shale Quarry – Approvals and Licences	6
Table 3 2020 Production Summary.....	7
Table 4 Relevant Environmental Performance Aspects	15
Table 5 Summary of 2020 Temperature and Rainfall Records (On-site Station)	16
Table 6 Summary of 2020 Deposited Dust Monitoring Results	21
Table 7 Summary of Water Quality Testing – Baseline Data (2017 – October 2020)	24
Table 8 Summary of Water Quality Testing – Operational Data (November 2020 – December 2020)	26
Table 9 Baseline Groundwater Quality Summary	28
Table 10 Summary of Areas Disturbed and Rehabilitation	30
Table 11 2017 Independent Audit Action Response Plan Status	32
Table 12 2020 Independent Audit Action Response Plan Status	33
PLATES	
Plate 1 Weed Spraying.....	9
Plate 2 Turtle Relocation	9
Plate 3 Oblique Aerial of Key Construction Works.....	9
Plate 4 Dam 7 Construction – In Progress.....	9
Plate 5 Spreading Gypsum across Completed Dam 10.....	10
Plate 6 Hydromulch Applied to Completed Dam 10.....	10
Plate 7 Hydromulching Completed Section of Dam 7	10

1. STATEMENT OF COMPLIANCE

The compliance status of relevant approvals was reviewed for the reporting period and is summarised in **Table 1**. It was determined that there were no non-compliances during the reporting period.

Table 1
Statement of Compliance

Were all conditions of the relevant approval(s) complied with?	Yes / No
Project Approval 08_0212	Yes
Mining (Mineral Owners) Lease 6	Yes

2. INTRODUCTION

2.1 OVERVIEW OF OPERATIONS

The New Berrima Clay/Shale Quarry (the “Quarry”) is located approximately 1.5km east of New Berrima in the Southern Highlands region of New South Wales (see **Figure 1**). Project Approval 08_0212 (PA 08_0212) was granted on 6 July 2012 and modified on 26 November 2015 and 6 July 2017. The approved layout of the Site is shown in **Figure 2** with surrounding land ownership and residences shown in **Figure 3**.

Project Approval 08_0212 was physically commenced in 2016 with site establishment activities commencing November 2020 with commencement of the site access intersection upgrade works and water management system. Site establishment, including construction of the amenity barriers, is expected to be completed during the first half of 2021.

2.2 SCOPE AND FORMAT

This Annual Review for the Quarry has been compiled by The Austral Brick Company Pty Limited (“Austral”) in conjunction with R.W. Corkery & Co. Pty Limited.

This is the fifth Annual Review submitted for the Quarry and is applicable for the period 1 January 2020 to 31 December 2020 (“the reporting period”). The information presented within this Annual Review has been prepared by R.W. Corkery & Co. Pty Limited through compilation of information provided by Austral.

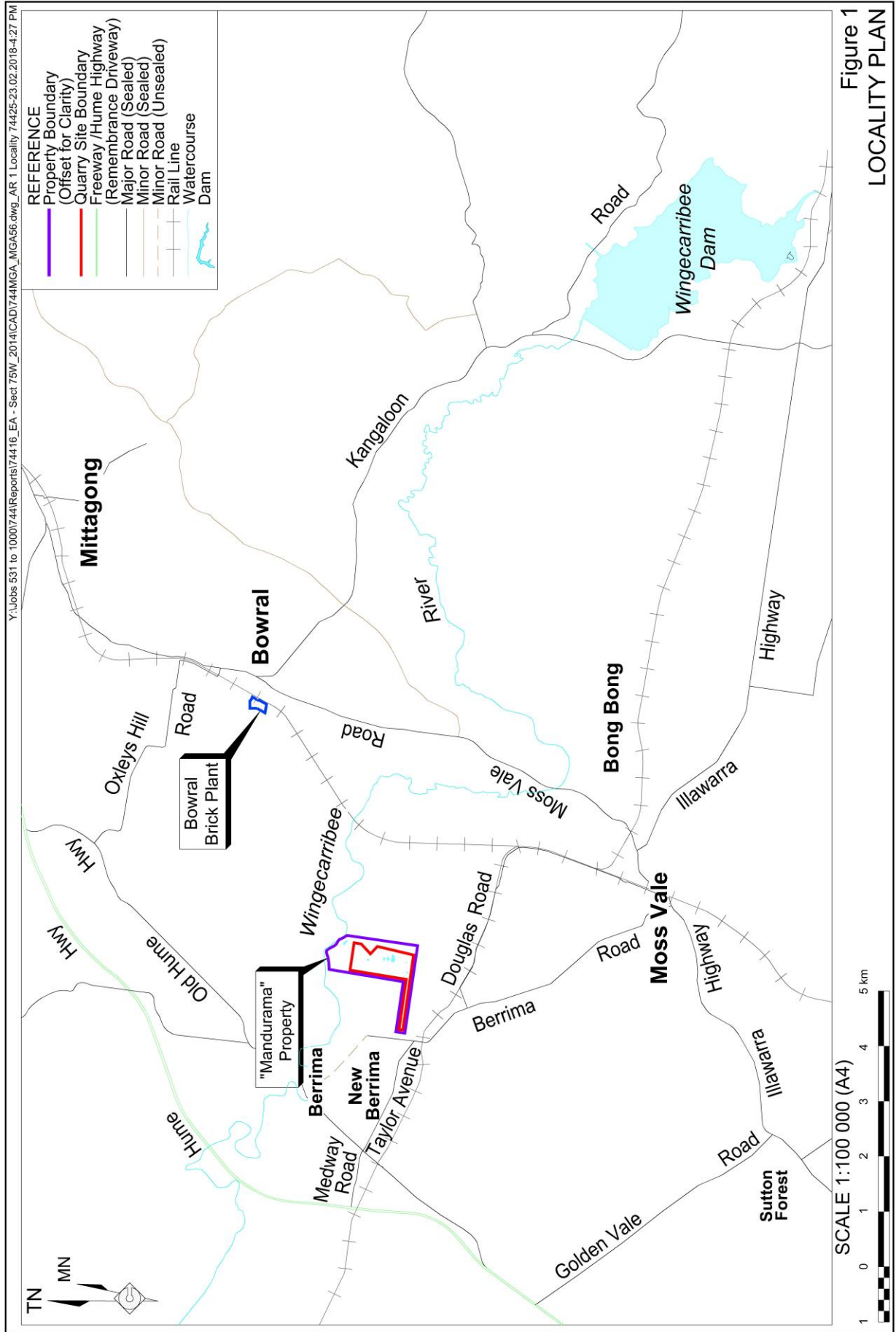
This Annual Review has been compiled in accordance with *Schedule 5 Condition 4* of PA 08_0212, generally follows the format and content requirements identified in the NSW Government *Annual Review Guideline* dated October 2015 and includes relevant information as required by the following conditions of PA 08_0212.

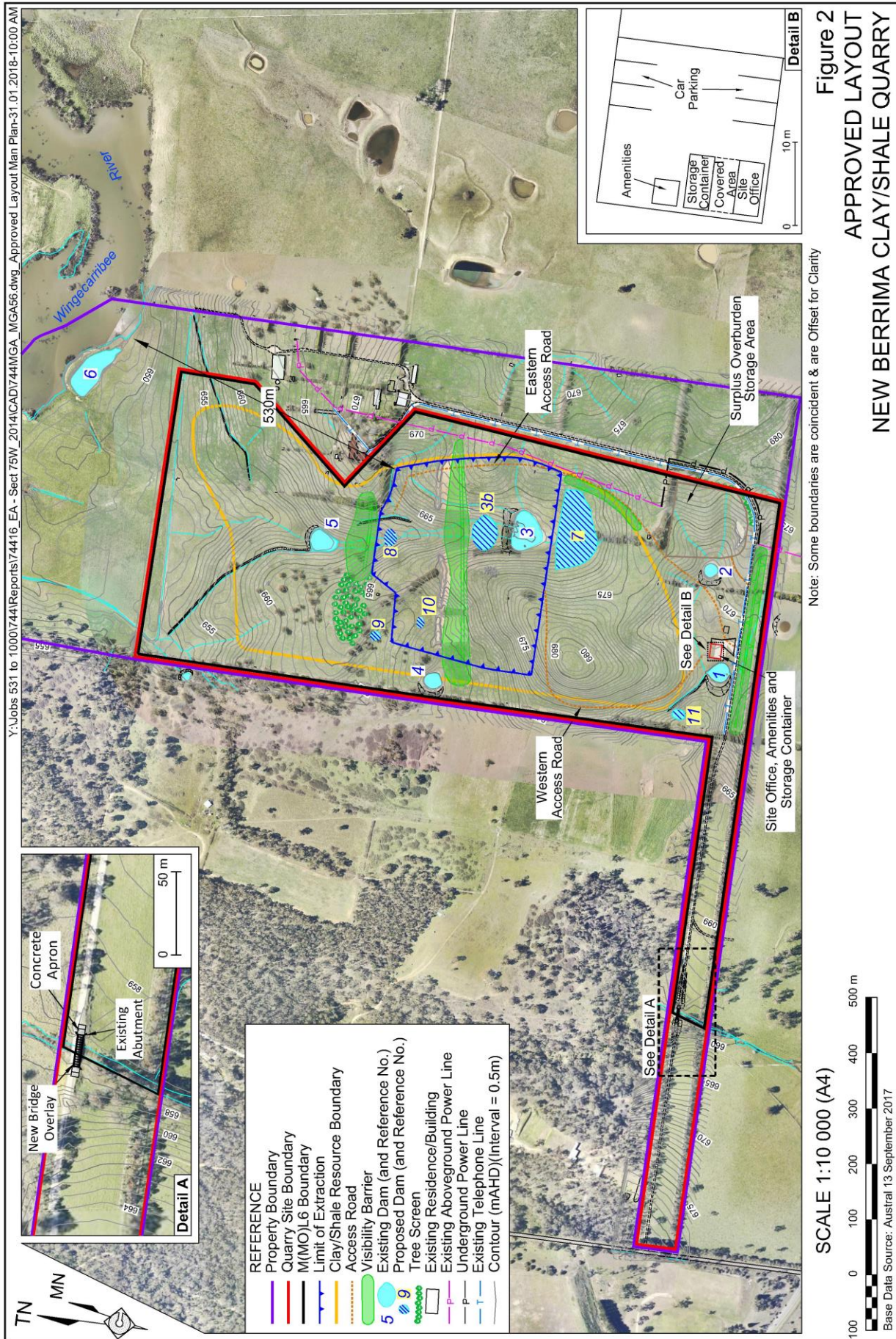
- *Schedule 2 Condition 15b*: Production Data.
- *Schedule 3 Condition 31*: Waste Management.
- *Schedule 5 Condition 11a*: Public Display.

2.3 KEY PERSONNEL CONTACT DETAILS

The key personnel contact names, position and phone numbers are as follows.

Name	Position	24 Hour Contact
Peter Young-Whitford	Raw Materials and Mining Manager	0412 611 714
Cassandra Steppacher	NSW Environmental Coordinator	0425 341 106





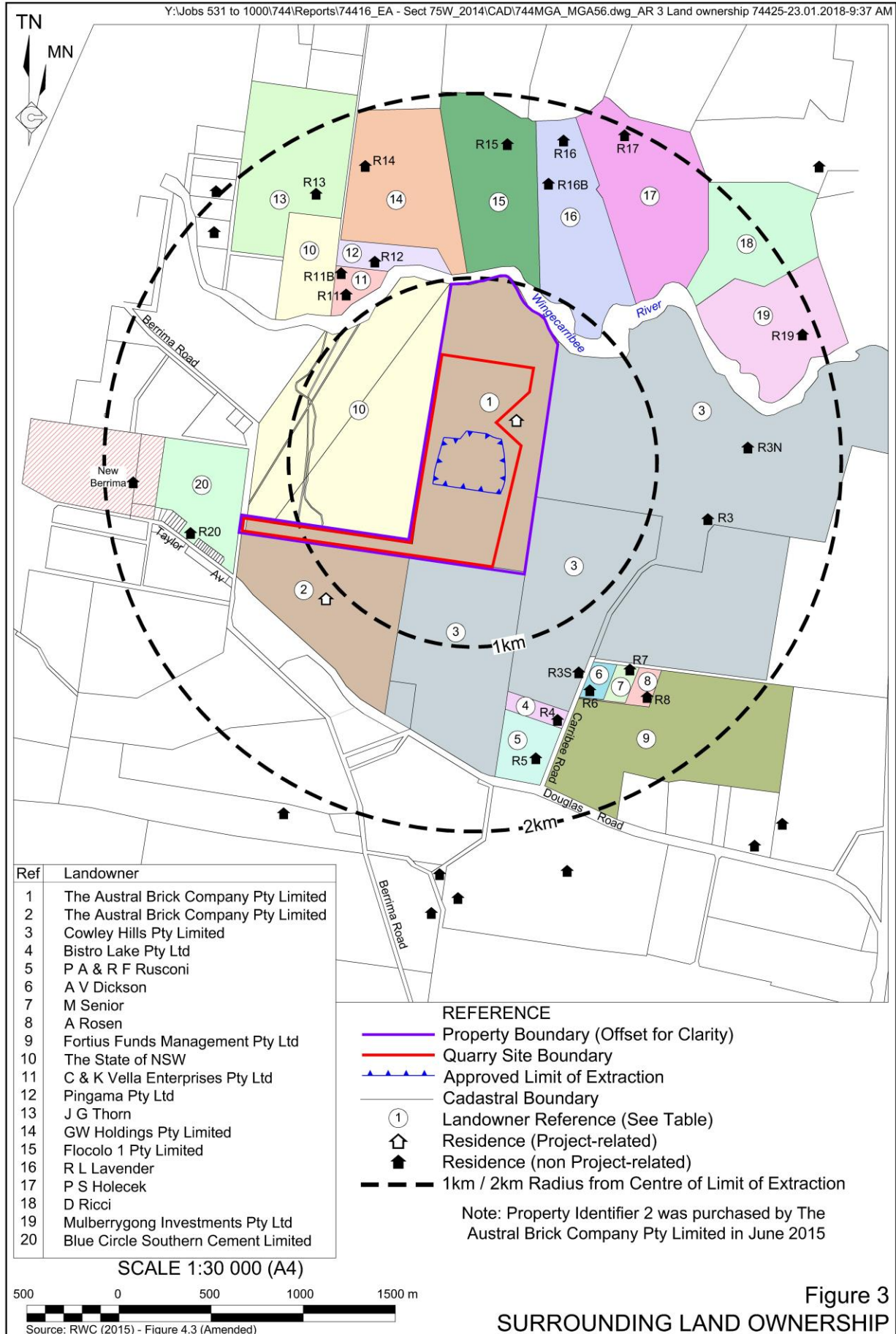


Figure 3
SURROUNDING LAND OWNERSHIP

3. APPROVALS

The Quarry is required to operate in accordance with the approvals and licences listed in **Table 2**.

Table 2
New Berrima Clay/Shale Quarry – Approvals and Licences

Consent/Lease/Licence	Issue Date	Expiry Date	Details / Comments
PA 08_0212	6/07/2012	31/12/2045	Issued by the (then) Minister for Planning and Infrastructure and last modified 6 July 2017.
Mining (Mineral Owners) Lease 6 (M(MO)L6)	27/06/17	27/06/2038	Granted by the Secretary of the (then) Department of Planning and Environment.
Environment Protection Licence 20377 (EPL 20377)	1/08/2016	Renewed annually	Issued by NSW Environment Protection Authority (EPA). Current version dated 29 January 2021.

A variation application for EPL 20377 was lodged during this reporting period on 1 October 2020 and subsequently finalised on 29 January 2021. There were no other modifications or variations to the other approvals or licences listed in **Table 2** during the reporting period.

The compliance reviews for PA 08_0212 and M(MO)L6 included in **Appendices 1 and 2** reflect the conditions relevant as at the end of this reporting period. A separate Annual Return also continued to be submitted to the NSW EPA in accordance with the requirements of EPL 20377 and is not further reported in this document.

A Section 138 Road permit, DA 17/1477, was previously issued by Council 30 August 2018 for an upgrade to the intersection of the Quarry access road and Berrima Road to accommodate B-Double vehicles. The works and requirements of this permit have been managed with and reported directly to Council with no conditions relevant to the ongoing operation of the Quarry.

4. OPERATIONS SUMMARY

4.1 CONSTRUCTION ACTIVITIES

Site establishment operations commenced during this reporting period in November 2020. This included the commencement of construction for the site access intersection upgrade, installation of silt fencing and construction and upgrade of Dams 4, 5, 7, 10 and 11 (see **Figure 4**).

4.2 EXTRACTION OPERATIONS

No extraction operations were undertaken during the reporting period. **Table 3** provides the production summary.

Table 3
2020 Production Summary

Material	Units	Approved Limit (Specify Source)	Previous Reporting Period (Actual)	This Reporting Period (Actual)	Next Reporting Period (Forecast)
Waste Rock / Overburden	bcm	Not Specified	0	0	136 000
ROM ¹	-	NA	-	-	-
Coarse Reject ¹	-	NA	-	-	-
Fine Reject ¹	-	NA	-	-	-
Saleable Product (Extractive Material)	t	150 000t [PA 08_0212 Condition 2(7)]	0	0	50 000
Transported Product	t	150 000t [PA 08_0212 Condition 2(8)]	0	0	50 000

Notes: 1. The Quarry does not generate 'Run of Mine' material, coarse or fine rejects.

During the reporting period soil stripping operations were undertaken for construction of Dams 5, 7 and 10. The stripped soil material was stockpiled adjacent to the toe of the dam embankment and respread over the completed embankment. Approximately 435m³ of excess topsoil from the construction of Dam 7 was also temporarily stockpiled within the extraction area for placement on the visibility barriers (once complete). Additionally, topsoil was stripped from approximately 2 400m² of the extraction area (see **Figure 4**) for spreading and drying of silt removed from the existing farm dam as part of its upgrade to become Dam 5. This soil material was windrowed adjacent and respread once the silt was dry.

In total of approximately 1 135m³ of topsoil material remained in stockpiles at the end of the reporting period including material stockpiled from physical commencement activities undertaken in 2016 and from the construction of Dam 7. The location of these stockpiles is shown on **Figure 4**. All stockpiled and respread soil material was stabilised with hydromulch.

4.3 OTHER OPERATIONS

During the reporting period, Austral undertook a range of non-extractive activities. A summary of these activities is provided as follows and a selection of photographs as **Plates 1 to 7**.

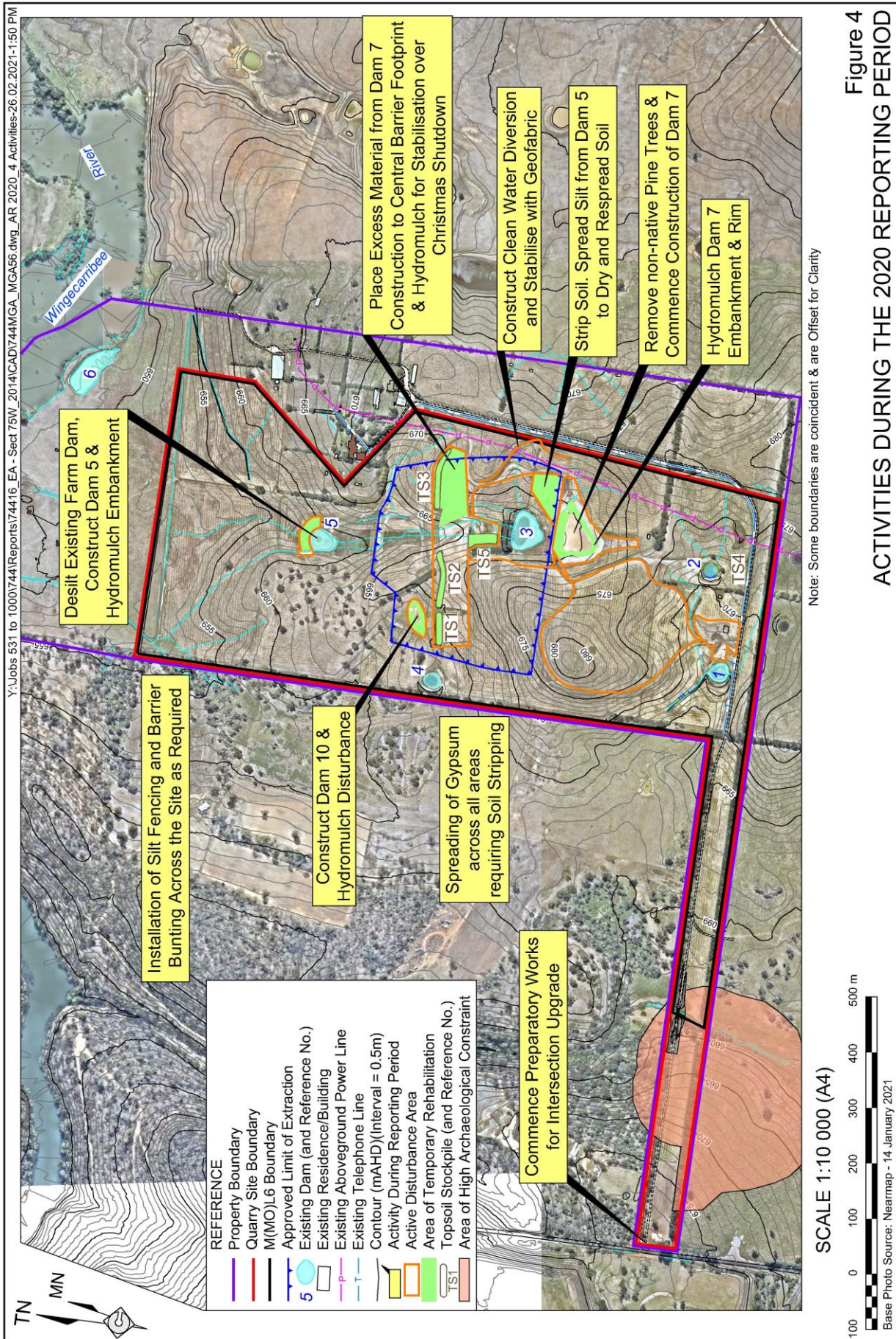


Figure 4
ACTIVITIES DURING THE 2020 REPORTING PERIOD



Plate 1 Weed Spraying
Source: Austral Bricks
Date: February 2020

Plate 2 Turtle Relocation
Source: Austral Bricks
Date: 26/11/2020



Plate 3 Oblique Aerial of Key Construction Works
Source: Austral Bricks
Date: 15/12/2021

Plate 4 Dam 7 Construction – In Progress
Source: Austral Bricks
Date: 14/01/2021





Plate 5 Spreading Gypsum across Completed Dam 10
Source: Austral Bricks
Date: 11/12/2020

Plate 6 Hydromulch Applied to Completed Dam 10
Source: Austral Bricks
Date: 17/12/2021



Plate 7 Hydromulching Completed Section of Dam 7
Source: Austral Bricks
Date: 22/12/2020

Commencement of Site Access Intersection Upgrade

During the reporting period the upgrade works required for the site access intersection were commenced including survey, application for relocation of a telecom service and two survey marks, pre-clearing survey and clearing of vegetation as per the approved Section 138 Road permit plans.

Environmental Management, Monitoring and Community Liaison

Environmental monitoring continued throughout the reporting period including meteorological, deposited dust and surface water quality monitoring. Results of this monitoring are summarised in Sections 6 and 7 together with the water management works completed during the reporting period. Maintenance and calibration of the meteorological station was also completed during the reporting period.

Temporary rehabilitation through application of hydromulch was also undertaken during the reporting period and is discussed in Section 8.

The community consultative committee continued to meet during the reporting period. Details of these meetings and other community liaison activities are summarised in Section 9.

Management Plan Review and Update

During the reporting period a revised Water Management Plan was submitted in July 2020 and approved in October 2020. A review was also completed of all other management plans during May 2020 with only administrative updates required.

Overhead Powerline

During the 2018 reporting period plans for the rerouting of the overhead powerlines above the Surplus Overburden Stockpile areas were submitted to Endeavour Energy for approval. Endeavour Energy have reviewed the plans and design and are currently processing the approval. No physical works have been undertaken to date with approval and rerouting expected during the next reporting period.

4.4 NEXT REPORTING PERIOD

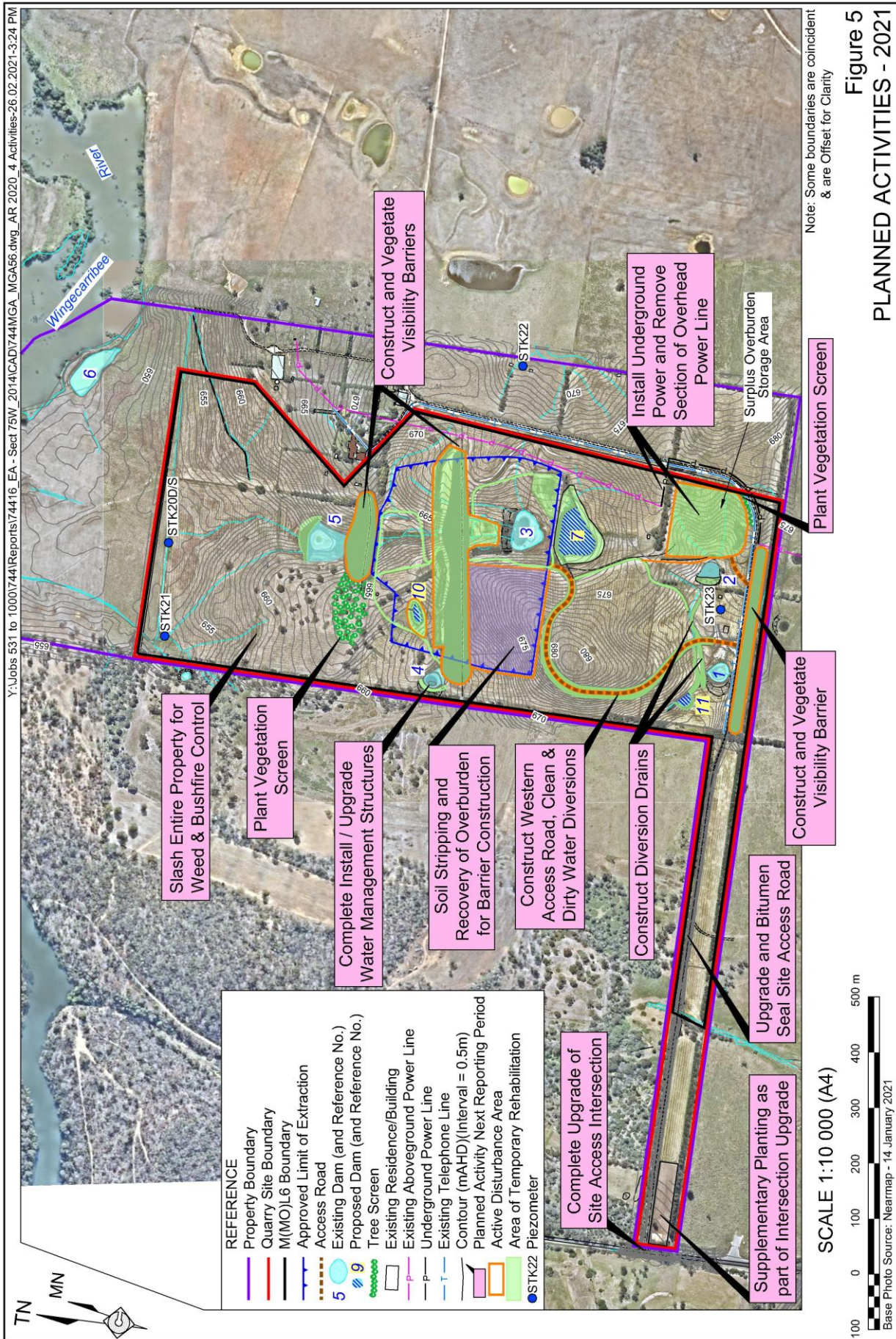
Activities planned to be undertaken during the next reporting period are summarised as follows and displayed on **Figure 5**.

Site Establishment and Construction

The following construction / land preparation activities are planned to be undertaken / completed during the next reporting period.

- Completion of water management structures (dams and diversion drains) in accordance with the updated Water Management Plan.
- Construction of the northern, central and southern visibility barriers utilising overburden recovered from the extraction area.
- Construction of the western access road.
- Rerouting of the overhead powerlines above the Surplus Overburden Stockpile area (following Endeavour Energy approval).





Extraction

Clay/shale extraction operations are expected to commence following completion of site establishment and construction activities. Extracted material will be transported to the Bowral Brick Plant to commence the transition from Bowral Quarry Extension shale resource which is nearing end of life.

Rehabilitation

No areas will become available for final rehabilitation during the next reporting period. However, temporary revegetation of the visibility barriers will be undertaken including establishment of a stabilising pasture cover and planting of the top and northern slopes of the central and northern barriers and the southern slope of the southern barrier. Planting of the tree screen west of the Northern Visibility Barrier and southeastern periphery of the Surplus Overburden Stockpile Area also will be undertaken in accordance with the measures detailed in the approved Landscape Management Plan and Water Management Plan. General property maintenance, including weed control and slashing, will also be undertaken as required.

Further discussion on planned rehabilitation is provided in Section 8.2.

Environmental Monitoring and Community Liaison

The following monitoring will be conducted during the next reporting period.

- Meteorological conditions
- Surface water quality
- General inspections for water management and maintenance
- Dust deposition
- Noise levels

The community consultative committee will also continue to meet during the next reporting period at intervals determined by the committee.

Management Plans

Following the completion of site establishment and construction a review of the management plans is planned with any aspects not relevant to ongoing operations to be removed. Any learnings from the site establishment and construction phase will also be reflected in the management plans.

5. ACTIONS REQUIRED FROM PREVIOUS ANNUAL REVIEW

The 2019 Annual Review was submitted to the DPIE and Resources Regulator on 28 February 2019 in accordance with the requirements of PA 08_0212 and M(MO)L6. Copies were also provided to Wingecarribee Shire Council, Water NSW and NRAR.

No formal response or actions were raised by DPIE or the Resources Regulator.

Whilst not a requirement, Water NSW confirmed on 11 March 2020 that they supported the implementation of the groundwater monitoring sites and noted there had been no change in water quality within Wingecarribee River.

6. ENVIRONMENTAL PERFORMANCE

6.1 INTRODUCTION

A summary of environmental performance for the principal environmental aspects is provided in **Table 4**. Further detail regarding specific environmental aspects is also provided in the following subsections. Environmental performance relating to water is discussed in Section 7.

Table 4
Relevant Environmental Performance Aspects

Aspect	Approval criteria/ (EIS prediction)	Performance during the reporting period	Trend/key management implications	Implemented/proposed management actions
Noise (Barrier construction)	43dB(A) during the day at receiver R2. 38dB(A) at all other receivers.	No barrier construction activities were undertaken during the reporting period. No complaints and no issues raised through the CCC.	No trends identifiable. Currently no management implications.	No specific management measures implemented or currently proposed. Noise monitoring planned to occur quarterly during site establishment and construction.
Noise (operations)	38dB(A) at all receivers.	No complaints and no issues raised through the CCC.	No trends identifiable. Currently no management implications.	No specific management measures implemented or currently proposed. Operational noise monitoring planned following commencement of extraction activities.
Blasting	Blasting is not an approved activity.	No blasting undertaken.	Nil.	Nil.
Air Quality	PM ₁₀ 24hr = 50µg/m ³ PM ₁₀ Annual = 30µg/m ³ TSP Annual = 90µg/m ³ Dep Dust Annual = 4g/m ² /month	No exceedances of annual average deposited dust and no complaints or issues raised through the CCC.	No trends identifiable. Currently no management implications.	No specific management measures implemented or currently proposed. Monthly deposited dust monitoring will continue in accordance with the Air Quality Management Plan.
Biodiversity	No significant impacts predicted.	No native vegetation disturbed within the Quarry Site. Native vegetation cleared for the site intersection upgrade managed in accordance with the S138 Permit	No trends identifiable. Currently no management implications.	No specific management measures implemented or currently proposed for the Quarry Site. Management measures for the site access intersection to be finalised in accordance with the conditions of the S138 Permit.
Landscape and Visual	Implement Landscape Management Plan.	No complaints or issues raised through the CCC.	Currently no management implications.	Visibility barriers to be constructed and tree screens planted during next reporting period.
Heritage	Implement Aboriginal Cultural Heritage Management Plan.	Aboriginal heritage content delivered by trained personnel during inductions. Trained personnel also inspected area of soil stripping for additional due diligence. Due diligence fencing of area of high archaeological constraint to ensure no inadvertent access.	Currently no management implications.	Induction of all employees by Austral personnel trained in accordance with the Aboriginal Heritage Management Plan.

6.2 METEOROLOGICAL MONITORING

Austral installed a meteorological station (see **Figure 6**) in September 2016. The meteorological station complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline.

A summary of the temperature and rainfall data for the reporting period is provided in **Table 5** whilst **Figure 7** presents the monthly wind roses. Daily rainfall records for the reporting period are presented in **Appendix 3**.

Table 5
Summary of 2020 Temperature and Rainfall Records (On-site Station)

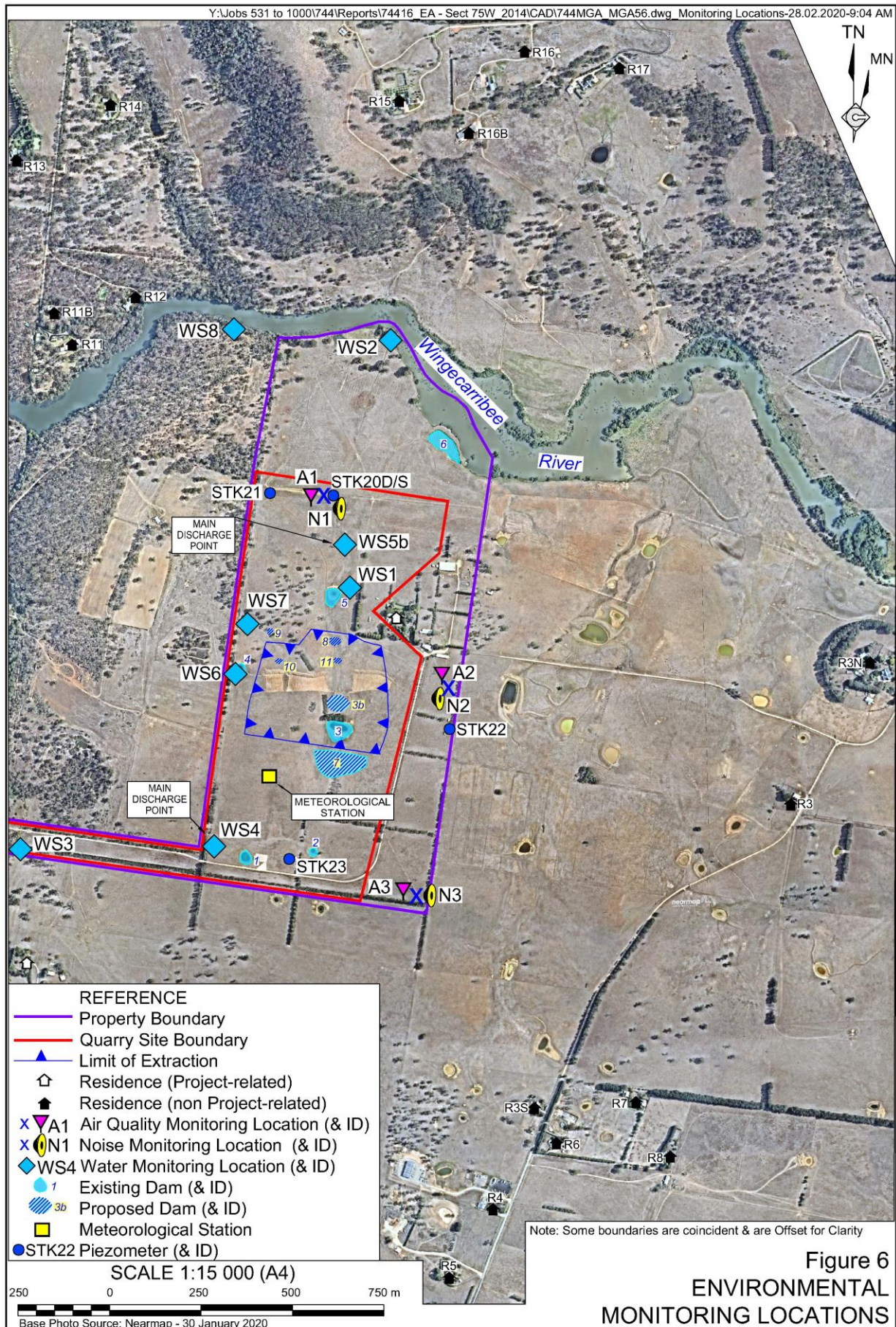
Month	Temperature (°C)			Rainfall (mm)
	Average	Minimum	Maximum	
January	20.2	11.5	39.8	27.8
February	18.6	10.2	39.6	257.2
March	15.7	6.8	30.1	55.6
April	14.0	3.3	24.9	49.2
May	9.53	-0.8	20.7	67.6
June	8.12	-1.1	15.6	18.8
July	7.95	-0.6	15.2	150.4
August	7.83	0.0	18.6	146.0
September	11.7	0.7	24.5	21.4
October	13.8	6.4	26.4	100.4
November	16.5	5.2	34.0	70.4
December	16.0	6.2	30.0	66.0
Total	-	-	-	1 030.8

A total of 1 030.8 of rain was recorded from 1 January 2019 to 31 December 2019, slightly above the long-term (149 year) average rainfall of 957.3mm recorded at the nearby BoM Moss Vale (Hoskins St) Station (No. 068045). The February rainfall shows a period of high intensity rainfall, during which 98mm of rain was recorded on one day.

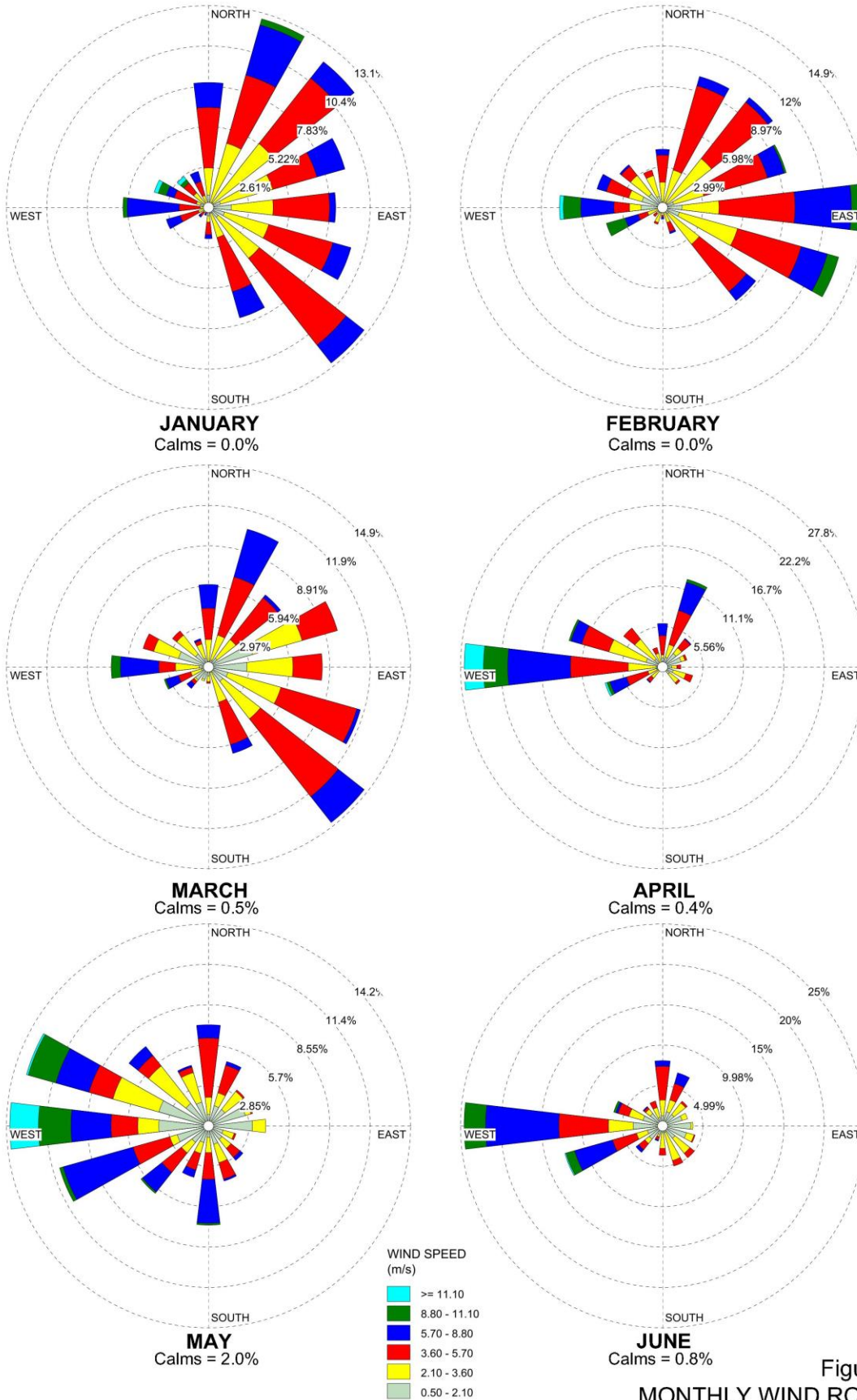
6.3 AIR QUALITY

Environmental Management

Relevant air quality management measures and monitoring are detailed within the approved Air Quality Management Plan. During the reporting period the principal air quality management measure was the use of a water cart to wet down the site access road and, when required, the soil and earth moved during construction of the water management structures. Hydromulching of the completed embankments was also undertaken, principally for soil stability, but also reducing the area exposed to potential wind erosion.



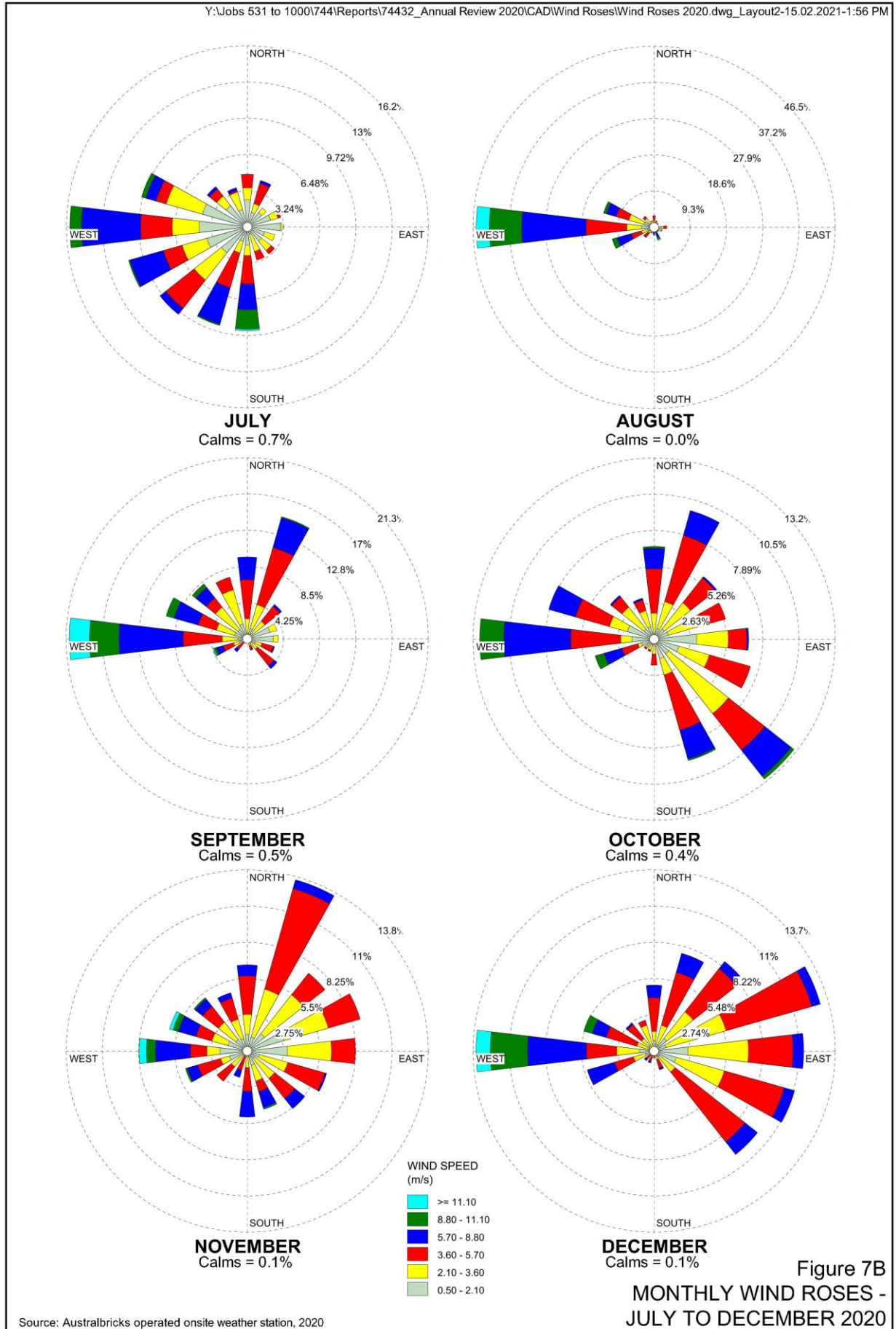
Y:\Jobs 531 to 1000\744\Reports\74432_Annual Review 2020\CAD\Wind Roses\Wind Roses 2020.dwg_Layout2-15.02.2021-1:56 PM



Source: Australbricks operated onsite weather station, 2020

Figure 7A
 MONTHLY WIND ROSES -
 JANUARY TO JUNE 2020





Environmental Performance

Austral continued to collect air quality samples from three deposited dust gauges, Sites A1, A2 and A3 (see **Figure 6**), throughout the reporting period. The results of the dust monitoring are summarised in **Table 6** and presented graphically in **Figure 8**. The monthly total insoluble solids over the reporting period ranged from 0.3g/m²/month (Site A1 April and May 2020) to 9.4g/m²/month (Site A1 September 2020). The rolling annual average monthly deposition rates for the reporting period were between 0.9g/m²/month and 2.3g/m²/month, which is significantly below the criteria of 4g/m²/month, indicating good air quality with respect to dust deposition.

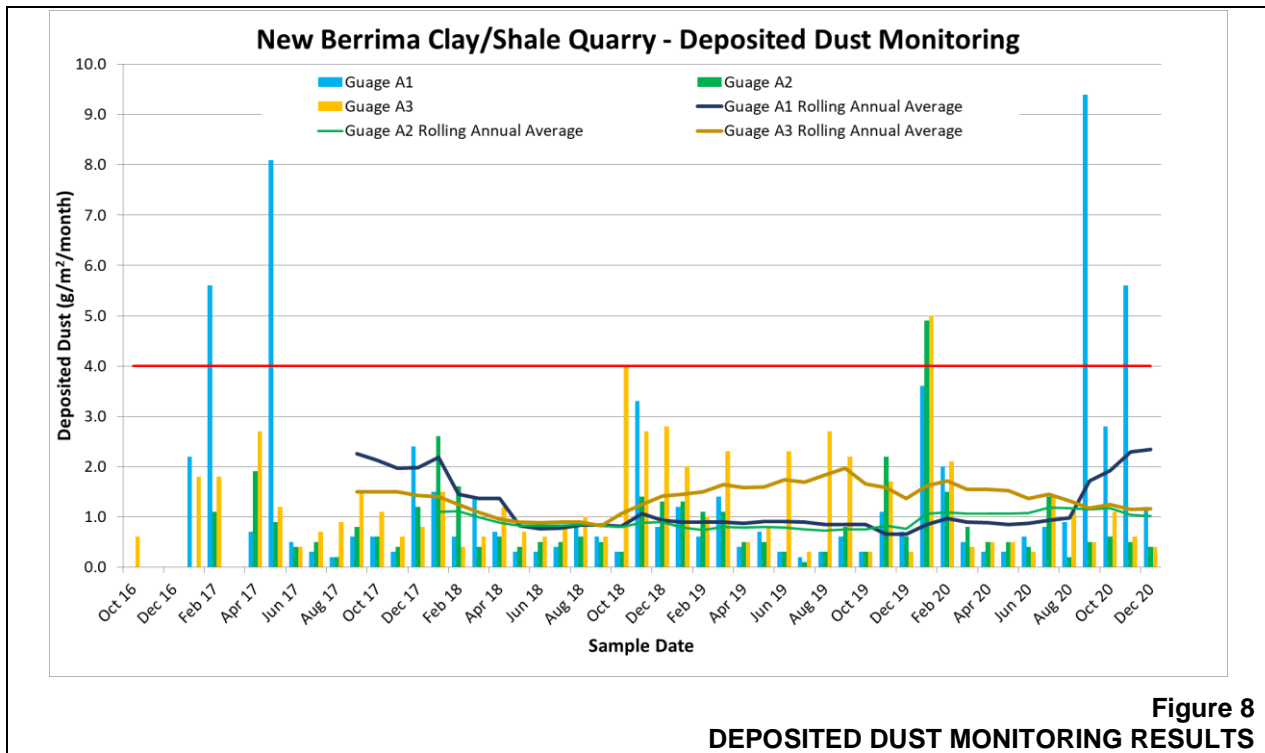


Figure 8
DEPOSITED DUST MONITORING RESULTS

Further data collection is required before any trends can be firmly established, however, between October 2018 to October 2019 the average dust levels at gauge A3 were consistently higher than gauges A1 and A2 and may have been the result of adjacent agricultural activities and use of the property access road. The spike in early 2020 across all three gauges reflects the period of State-wide bush fires experienced during this time. There was also a spike in monthly total insoluble solids at Site A1 during September 2020, however, this was not recorded at the other monitoring locations. It is noted that site establishment and construction activities commenced November 2020 with earthworks not commencing until 2 December 2020, i.e. following the elevated results. No conclusive cause for the localised elevated result was evident.

Table 6
Summary of 2020 Deposited Dust Monitoring Results

Sampling Period	Monthly ¹ Dust Deposition Rate (g/m ² /month)								
	A1			A2			A3		
	Total Insoluble	Rolling Annual Average	Ash	Total Insoluble	Rolling Annual Average	Ash	Total Insoluble	Rolling Annual Average	Ash
01/01/20 to 31/01/20	3.6	0.9	2.8	4.9	1.1	4.2	5.0	1.6	4.1
01/02/20 to 29/02/20	2.0	1.0	1.8	1.5	1.1	1.3	2.1	1.7	1.9
01/03/20 to 30/03/20	0.5	0.9	0.5	0.8	1.1	0.6	0.4	1.6	0.4
31/03/20 to 30/04/20	0.3	0.9	0.2	0.5	1.1	0.3	0.5	1.6	0.3
01/05/20 to 31/05/20	0.3	0.9	0.2	0.5	1.1	0.3	0.5	1.5	0.4
01/06/20 to 30/06/20	0.6	0.9	0.4	0.4	1.1	0.2	0.3	1.4	0.2
01/07/20 to 31/07/20	0.8	0.9	0.6	1.4	1.2	1.0	1.4	1.5	1.0
01/08/20 to 31/08/20	0.9	1.0	0.8	0.2	1.2	0.2	1.1	1.3	0.2
01/09/20 to 30/09/20	9.4	1.7	8.6	0.5	1.2	0.2	0.5	1.2	0.2
01/10/20 to 31/10/20	2.8	1.9	2.4	0.6	1.2	0.5	1.1	1.2	0.5
01/11/20 to 30/11/20	5.6	2.3	1.7	0.5	1.0	0.2	0.6	1.2	0.2
01/12/20 to 31/12/20	1.2	2.3	0.7	0.4	1.0	0.2	0.4	1.2	0.2

Source: Austral Bricks

Reportable Incidents and Further Improvements

No complaints were received and no reportable incidents relating to air pollution occurred during the reporting period. No further improvements relating to air pollution are currently considered necessary, however, it is noted that it is planned to seal the Quarry/property access road during the next reporting period to minimise dust during operations. This will also reduce potential for dust generation from general property access. Whilst results have remained well below the applicable criteria, ongoing review of surrounding activities will be undertaken to determine any correlation with elevated results.

6.4 ABORIGINAL HERITAGE

Environmental Management

Four key Austral personnel have previously undertaken Aboriginal heritage induction training in accordance with the Aboriginal Heritage Management Plan. These personnel were responsible for all site inductions and delivered Aboriginal cultural awareness information as part of the induction.

Whilst not a commitment, in addition to the management measures outlined within the Aboriginal Heritage Management Plan, Austral installed suitable fencing during October 2018 to minimise the risk of inadvertent access to the areas identified as being of high archaeological constraint. No additional management measures were required during the reporting period.

Environmental Performance, Reportable Incidents and Further Improvements

In addition to equipment operators being made aware to look for Aboriginal heritage items, particularly when handling soil material, Austral personnel also undertook inspections of topsoil stripping operations. No Aboriginal heritage sites were identified during the reporting period and no further improvements are currently deemed necessary. No reportable incidents occurred during the reporting period.

6.5 BIODIVERSITY

No native vegetation will be disturbed by the Quarry and, as such, there are no specific biodiversity management or performance measures required. Whilst not a requirement, prior to the upgrade of the existing farm dams, inspection for and relocation of turtles was undertaken by Turtle Rescue New South Wales on 26 November 2020. The majority of the Quarry Site was also sprayed for weeds, particularly targeting blackberries, during February 2020.

As noted in Section 3, the upgrade of the site access intersection is approved through Section 138 Road permit, DA 17/1477 issued by Council. All works and requirements of this permit have been managed with and reported directly to Council. Notwithstanding, the compliance report, prepared by Ecologique on 23 December 2020 and provided to Council, addressing relevant biodiversity aspects is provided as **Appendix 4**.

No incidents or further improvements relating to biodiversity are currently deemed necessary.

6.6 WASTE MANAGEMENT

All general waste and recyclables were collected within waste receptacles located at the site office and removed from site to the Moss Vale Resource Recovery Centre. No scheduled equipment maintenance was undertaken on site, however, minor wastes, including any hydrocarbon waste (e.g. oily rags) was collected by the earthmoving contractor (TRN) and disposed of appropriately at their off-site depot.

The on-site portaloos were maintained and associated waste managed by South Coast Liquid Treatment Pty Limited.

No additional waste reduction or management measures were required during the reporting period and no specific improvements are planned for the next reporting period.

7. WATER MANAGEMENT

7.1 WATER TAKE

As outlined within the Water Management Plan, the existing and planned water storages on site are either exempt from the harvestable right dam capacity (being for pollution control purposes) or within the harvestable right dam capacity for the property. As a result, water licencing is not required. Notwithstanding, the volume of water utilised for Quarry operations is recorded. During the reporting period a total of approximately 1.625ML was utilised for dust suppression purposes.

It is noted that Water Supply Works and Water Use Approval 10CA102968 and associated Water Access Licence 25683 issued on 1 July 2011 for accessing water from the Wingecarribee River are used solely for irrigation purposes within the Mandurama property. No water was accessed under this licence for Quarry purposes.

7.2 SURFACE WATER

Environmental Management

Relevant surface water management measures and monitoring are detailed within the approved Water Management Plan. During the reporting period the principal surface water management measures included the installation of sediment fencing downslope of all areas of planned disturbance, construction of a clean water diversion bank upslope of the area utilised to dry silts from Dam 5, and commencement of construction of the water management system, including commencement of Dams 5, 7 and 10. Hydromulching of the completed dam embankments and spread soil material was also undertaken. It is noted that, prior to stripping of soil from these area, gypsum was also spread to improve soil structure and stability. Geofabric was also utilised to provide immediate stabilisation of the clean water diversion bank and to the spillways of Dams 5, 7 and 10.

The soil stockpiles created in 2016 have been stabilised with no further management required during the reporting period.

Austral personnel also undertook site inspections following significant rainfall events. No erosion or sedimentation issues were noted. It is noted that, during significant rainfall events, the extent of earthmoving works were restricted and/or ceased, including an early cessation of works prior to Christmas due to ongoing rain.

Environmental Performance

Water quality monitoring was carried out in accordance with the Water Management Plan at the eight site locations identified in **Figure 6** and summarised below.

- WS2 represents the upstream Wingecarribee River monitoring location and WS8 represents the downstream location,
- WS1, WS5b, WS6 and WS7 represent monitoring locations within ephemeral drainage lines within the Quarry Site which ultimately report to the Wingecarribee River.

- WS4 is located within an ephemeral drainage line in the southern part of the Quarry Site which reports to Stony Creek.
- WS3 is located within Stony Creek upstream of any Quarry activities.

Monthly data has been consistently collected since May 2017 following a single round of monitoring in 2008. Up to and including the October 2020 monitoring round, this data has been collected as baseline water quality data. A summary of the baseline monitoring data is provided in **Table 7**. Data from and including November 2020 is considered operational data and is presented in **Table 8**. A graphical summary of all data for a number of key analytes is presented as **Figure 9**.

Table 7
Summary of Water Quality Testing – Baseline Data (2017 – October 2020)

Parameter	Units	WS1		WS2		WS3		WS4		WS5		WS6		WS7		WS8	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
		Median		Median		Median		Median		Median		Median		Median		Median	
pH		7.7	7.7	6.2	7.8	6.6	8.1			6.4	6.7					6.2	7.7
		7.7		7.2		7.3				6.6						7.3	
EC	µS/cm	393	393	110	350	215	650			120	135					105	390
		393.0		227.5		450.0				127.5						237.5	
Sodium	mg/L	26.9	26.9	8.2	44.0	12.0	41.0			17.0	18.0					8.0	45.0
		26.9		22.5		24.0				17.5						22.0	
Potassium	mg/L	27.1	27.1	2.4	10.0	1.8	22.0			2.1	4.8					2.1	13.0
		27.1		5.2		6.5				3.5						5.0	
Calcium	mg/L	13.6	13.6	3.6	23.0	24.0	92.0			3.9	4.6					5.0	26.0
		13.6		14.0		47.0				4.3						15.0	
Magnesium	mg/L	7.9	7.9	2.3	10.0	5.7	16.0			2.3	2.8					2.6	9.4
		7.9		5.8		9.1				2.6						6.0	
Chloride	mg/L	60	60	17	53	19	100			35	37					18	53
		60.0		32.0		41.0				36.0						32.5	
Sulfate	mg/L	2	2	2	50	3	58			2	2					4	83
		2.0		24.5		25.0				2.0						31.0	
Bicarbonate	mg/L	NT	NT	29	82	76	315	NS		12	21	NS		NS		8	79
		NT		47.5		150.0				16.5							48.5
Phosphate	mg/L	NT	NT	0.1	0.3	0.1	1.2			0.1	0.1					0.1	0.3
		NT		0.1		0.1				0.1						0.1	
Fluoride	mg/L	NT	NT	0.1	1.7	0.1	0.3			0.1	0.1					0.1	0.4
		NT		0.2		0.2				0.1						0.1	
Nitrate	mg/L	NT	NT	0.1	4.6	0.1	4.7			0.1	0.1					0.1	4.4
		NT		1.5		0.1				0.1						1.2	
Total Ammonia	mg/L	NT	NT	0.1	0.4	0.1	1.0			0.1	0.3					0.1	0.3
		NT		0.1		0.1				0.2						0.1	
TKN	mg/L	7.3	7.3	0.1	2.1	0.1	5.6			1.5	1.7					0.1	2.4
		7.3		1.0		1.0				1.6						1.2	
Total Phosphorus	mg/L	0.2	0.2	0.0	2.0	0.0	2.5			0.2	0.8					0.0	0.2
		0.2		0.1		0.5				0.5						0.1	
TSS	mg/L	32	32	3	77	2	380			61	290					4	250
		32.0		13.0		16.0				175.5						11.0	
Turbidity	NTU	NT	NT	5.3	75.0	0.6	130.0			80.0	180.0					3.5	70.0
		NT		18.0		7.4				130.0						16.0	

NS = No Sample

NT = Not Tested

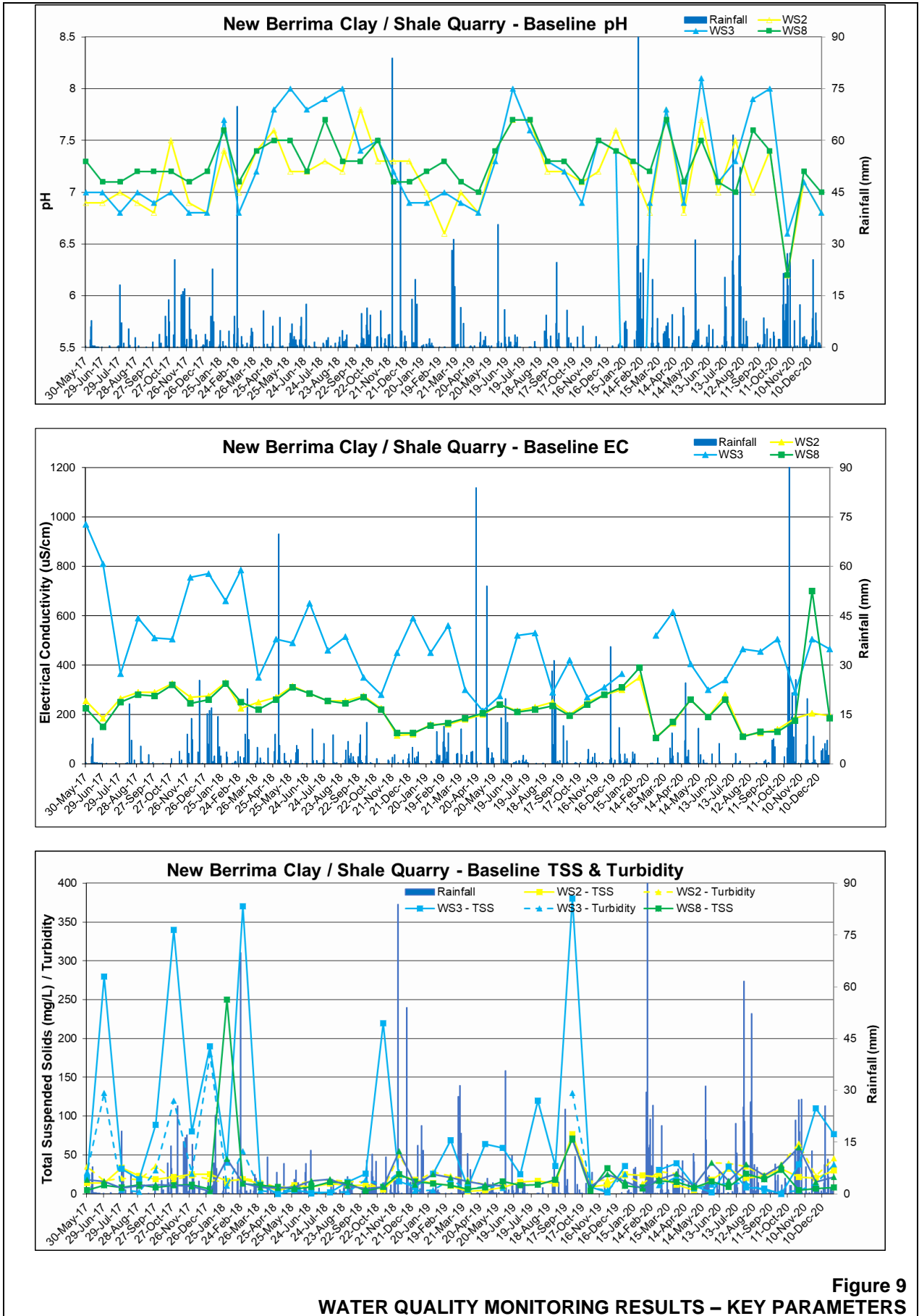


Figure 9
WATER QUALITY MONITORING RESULTS – KEY PARAMETERS



Table 8
Summary of Water Quality Testing – Operational Data (November 2020 – December 2020)

Parameter	Units	WS1		WS2		WS3		WS4		WS5		WS6		WS7		WS8	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
		Median		Median		Median		Median		Median		Median		Median		Median	
pH		NS		6.8	7.1	6.8	7.1	NS		NS		NS		NS		7.0 7.2	
		NS		7.0		7.0		NS		NS		NS		NS		7.1	
EC	µS/cm	NS		195	205	465	505	NS		NS		NS		NS		185 200	
		NS		200.0		485.0		NS		NS		NS		NS		192.5	
Sodium	mg/L	NS		17.0	18.0	35.0	36.0	NS		NS		NS		NS		15.0 16.0	
		NS		17.5		35.5		NS		NS		NS		NS		15.5	
Potassium	mg/L	NS		4.6	5.2	16.0	20.0	NS		NS		NS		NS		4.5 4.9	
		NS		4.9		18.0		NS		NS		NS		NS		4.7	
Calcium	mg/L	NS		13.0	15.0	41.0	47.0	NS		NS		NS		NS		14.0 15.0	
		NS		14.0		44.0		NS		NS		NS		NS		14.5	
Magnesium	mg/L	NS		6.8	7.8	12.0	13.0	NS		NS		NS		NS		6.9 7.7	
		NS		7.3		12.5		NS		NS		NS		NS		7.3	
Chloride	mg/L	NS		30	32	72	72	NS		NS		NS		NS		28 32	
		NS		31.0		72.0		NS		NS		NS		NS		30.0	
Sulfate	mg/L	NS		12	14	5	30	NS		NS		NS		NS		57 63	
		NS		13.0		17.5		NS		NS		NS		NS		60.0	
Bicarbonate	mg/L	NS		60	62	160	175	NS		NS		NS		NS		12 13	
		NS		61.0		167.5		NS		NS		NS		NS		12.5	
Phosphate	mg/L	NS		0.0	0.0	0.3	0.3	NS		NS		NS		NS		0.0 0.0	
		NS		below LOR		0.3		NS		NS		NS		NS		below LOR	
Fluoride	mg/L	NS		0.2	0.2	0.3	0.3	NS		NS		NS		NS		0.1 0.1	
		NS		0.2		0.3		NS		NS		NS		NS		0.1	
Nitrate	mg/L	NS		0.8	1.0	0.0	0.0	NS		NS		NS		NS		0.6 1.0	
		NS		0.9		below LOR		NS		NS		NS		NS		0.8	
Total Ammonia	mg/L	NS		0.1	0.1	0.8	1.0	NS		NS		NS		NS		0.0 0.0	
		NS		0.1		0.9		NS		NS		NS		NS		below LOR	
TKN	mg/L	NS		0.1	0.1	0.5	1.0	NS		NS		NS		NS		1.1 1.8	
		NS		0.1		0.7		NS		NS		NS		NS		1.5	
Total Phosphorus	mg/L	NS		1.3	1.5	2.5	7.1	NS		NS		NS		NS		0.1 0.1	
		NS		1.4		4.8		NS		NS		NS		NS		0.1	
TSS	mg/L	NS		20	30	77	110	NS		NS		NS		NS		7 8	
		NS		25.0		93.5		NS		NS		NS		NS		7.5	
Turbidity	NTU	NS		23.0	46.0	13.0	38.0	NS		NS		NS		NS		15.0 22.0	
		NS		34.5		25.5		NS		NS		NS		NS		18.5	

NS = No Sample

NT = Not Tested

LOR = Limit of Reaction (Detection)

General conclusions that can be drawn from the baseline water quality monitoring to date are as follows.

- Water has not been present at WS4, WS6 and WS7 during any monitoring events and has not been present at WS1 since the August 2008 sampling event. Water has also only been present at WS5 on two occasions. As these are ephemeral drainage lines located in well vegetated catchments, run off events will be limited to short periods following adequate rainfall.
- At WS2 (Wingecarribee River upstream) and WS8 (Wingecarribee River downstream), water has been present during all monitoring events. As would be expected, the results for most parameters are very similar between these locations with near neutral pH ranging from 6.2 to 7.8 and low electrical conductivities ranging from 110µS/cm to 390µS/cm. Whilst generally low, total suspended solids (TSS) and turbidity tends to be slightly higher at WS2 (upstream) ranging

from 3mg/L to 77mg/L with a median of 13mg/L and 5.3NTU to 75NTU with a median of 18NTU respectively. At WS8 (downstream) TSS and turbidity has ranged from 4mg/L to 250mg/L with a median of 11mg/L and 3.5NTU to 70NTU with a median of 16NTU respectively.

- At WS3 (Stony Creek upstream), water has also been present during all monitoring events and, similar to Wingecarribee River, has near neutral pH ranging from 6.6 to 8.1. However, the electrical conductivity, TSS and turbidity are higher, ranging from 215 μ S/cm to 650 μ S/cm, 2mg/L to 380mg/L and 0.6NTU to 130NTU and is likely reflective of agricultural and industrial activities further upstream.
- At WS5, sufficient water was present in June and July 2017 to collect samples for analysis. The pH was also near neutral at 6.4 and 6.7 and electrical conductivity was low at 120 μ S/cm and 135 μ S/cm. Similar to WS3, TSS and turbidity were elevated, at 61mg/L and 290mg/L and 80NTU and 180NTU respectively. Future monitoring is proposed to be undertaken slightly upstream towards the Quarry to remove the influence of surrounding agricultural activities.

For operational monitoring during the reporting period, sufficient water was available within Wingecarribee River (WS2 and WS8) and Stony Creek (WS3). The pH, EC, TSS and NTU were all within the previously recorded baseline ranges.

Reportable Incidents and Further Improvements

No reportable incidents or other issues arose during the reporting period.

No specific improvements are planned during the next reporting period other than the completion of the water management system installation. The results from ongoing water quality monitoring will continue to be reviewed to identify any trends in operational data.

7.3 GROUNDWATER

No operations were undertaken that would encounter groundwater and groundwater monitoring bores are not required to be installed until extraction operations reach 660m AHD. Notwithstanding, during July 2019 four groundwater monitoring bores were installed (**Figure 6**) to establish baseline groundwater data. The results of the baseline monitoring to date are summarised in **Table 9**.

Further monitoring is required to provide an adequate description of baseline water quality. However, initial monitoring indicates the groundwater is slightly brackish to brackish with an acidic to neutral pH.

There were no reportable incidents and no further improvements are currently planned.

Table 9
Baseline Groundwater Quality Summary

Page 1 of 2

Parameter	Units	STK20S		STK20D		STK22		STK23	
		Min	Max	Min	Max	Min	Max	Min	Max
		Median		Median		Median		Median	
Physical Parameters									
Standing Water Level	m AHD	643.03	646.18	641.01	644.26	663.05	665.70	665.80	667.40
		644.31		641.70		664.15		666.08	
pH		6.1	7.0	5.9	7.3	4.9	7.4	7.2	7.8
		7.0		6.9		7.1		7.7	
EC	µS/cm	3280	3660	776	1040	896	1010	4720	5180
		3570		776		897		4800	
Major Anions and Cations									
Sodium	mg/L	197	235	60	68	98	113	245	296
		215		67		103		266	
Potassium	mg/L	6	8	10	16	17	19	17	35
		6		15		17		18	
Calcium	mg/L	104	129	21	37	28	36	278	316
		105		24		32		299	
Magnesium	mg/L	199	215	26	48	24	26	237	263
		210		29		25		258	
Chloride	mg/L	896	1160	154	240	137	152	1150	1420
		927		164		146		1280	
Sulfate	mg/L	20	199	1	4	2	14	33	122
		178		3		8		42	
Bicarbonate	mg/L	72	148	109	143	103	254	482	545
		136		118		229		527	
Fluoride	mg/L	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2
		0.1		0.1		0.2		0.2	
Nutrients									
Nitrate	mg/L	0.24	0.61	0.06	0.07	0.01	0.06	0.01	0.26
		0.30		0.07		0.04		0.07	
Total Ammonia	mg/L	0.15	0.58	1.21	1.30	0.20	0.50	0.23	0.33
		0.37		1.26		0.35		0.28	
TKN	mg/L	0.70	2.10	2.20	9.30	13.40	17.50	0.10	0.90
		0.70		4.90		15.45		0.30	
Total Phosphorus	mg/L	0.31	4.43	0.07	0.96	0.22	2.68	0.01	0.19
		0.40		0.52		0.31		0.02	
Reactive Phosphorus	mg/L	0.00	0.00	0.03	0.03	0.03	0.03	0.00	0.00
		below LOR		0.03		0.03		below LOR	

Table 9 (Cont'd)
Baseline Groundwater Quality Summary

Parameter	Units	STK20S		STK20D		STK22		STK23	
		Min	Max	Min	Max	Min	Max	Min	Max
		Median		Median		Median		Median	
Metals									
Aluminium	mg/L	0.000	0.000	0.160	0.520	0.640	1.260	0.010	0.020
		below LOR		0.250		1.240		0.015	
Arsenic	mg/L	0.017	0.017	0.004	0.004	0.004	0.006	0.002	0.060
		0.017		0.004		0.005		0.031	
Cadmium	mg/L	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		below LOR		below LOR		below LOR		below LOR	
Chromium	mg/L	0.000	0.000	0.002	0.004	0.009	0.010	0.002	0.003
		below LOR		0.003		0.010		0.003	
Cobalt	mg/L	0.033	0.049	0.002	0.003	0.005	0.006	0.004	0.004
		0.041		0.003		0.006		0.004	
Copper	mg/L	0.002	0.002	0.002	0.002	0.000	0.000	0.000	0.000
		0.002		0.002		below LOR		below LOR	
Lead	mg/L	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002
		below LOR		below LOR		below LOR		0.002	
Manganese	mg/L	1.590	3.080	0.941	0.968	0.814	0.930	0.202	0.239
		2.335		0.955		0.872		0.221	
Nickel	mg/L	0.036	0.079	0.002	0.007	0.008	0.012	0.003	0.003
		0.058		0.005		0.010		0.003	
Selenium	mg/L	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		below LOR		below LOR		below LOR		below LOR	
Zinc	mg/L	0.009	0.033	0.012	0.012	0.010	0.010	0.007	0.015
		0.021		0.012		0.010		0.011	
Iron	NTU	0.7	58.4	21.2	26.9	6.9	19.6	0.1	6.9
		10.7		21.9		16.7		3.5	

8. REHABILITATION

8.1 REHABILITATION PERFORMANCE DURING THE REPORTING PERIOD

Figures 4 and 5 show the disturbance and rehabilitation status of the Quarry Site at the end of this reporting period and predicted at the end of the next reporting period. Table 10 provides a summary of the disturbance and rehabilitation areas.

Table 10
Summary of Areas Disturbed and Rehabilitation

Quarry Area Type	Previous Reporting Period (Actual)	This Reporting Period (Actual)	Next Reporting Period (Forecast)
	Year 4 (ha)	Year 5 (ha)	Year 6 (ha)
Total Quarry footprint	2.0 ¹	5.06 ²	10.73 ³
Total active disturbance	2.0 ¹	5.06 ²	10.73 ³
Land being prepared for rehabilitation	0	0	0
Land under active rehabilitation	0	0	0
Completed rehabilitation	0	0	0

Notes: 1. Includes approximately 1.9ha of temporary rehabilitation
2. Includes approximately 1.43ha of temporary rehabilitation
3. Includes approximately 7.95ha of temporary rehabilitation (estimated)

As outlined in Section 4.2, topsoil stripped during the reporting period was respread over the completed dam embankments and silt drying area within the extraction area. All spread topsoil material was hydromulched within 10 days from completion of spreading. As such, these areas are considered to be temporarily rehabilitation. The soil stockpiles previously created and stabilised utilising pasture species remained in place and are also considered to be temporary rehabilitation.

No final rehabilitation has been undertaken to date.

8.2 ACTIONS FOR THE NEXT REPORTING PERIOD

Rehabilitation planned during the next reporting period will principally involve the completed visibility barriers. Following completion of each soil stripped from the footprint of the barriers will be spread over the barriers and seeded with pasture species for stabilisation. The top and northern slopes of the central and northern barriers and the southern slope of the southern barrier will also be planted with tubestock to aid with the management of visual amenity. Given that the central and northern visibility barriers will be deconstructed, this revegetation will only be temporary.

Additionally, whilst not strictly a rehabilitation activity, planting of the vegetative screens adjacent the northern visibility barrier and around the Surplus Overburden Stockpile is also planned to take place (see Figure 5).

Seeds from the local and neighbouring Shale Woodland Community have been harvested by Wariapendi Native Nursery and are currently being propagated for use in the vegetative screens and rehabilitation of the visibility barriers.

9. COMMUNITY

9.1 COMMUNITY COMPLAINTS

No complaints were received during the reporting period and no complaints have been received in previous reporting periods.

9.2 COMMUNITY LIAISON

The key community liaison activity during the reporting period continued to be through engagement with the Community Consultative Committee (CCC) and the committee meetings held. Three meetings of the CCC were held in 2020, namely on 26 February, 15 July, and 28 October. A copy of the CCC meeting minutes are posted on Austral's website (<https://australbricks.com.au/environmental-documentation/>) under "New Berrima (NSW)".

These meetings continue to provide the opportunity for the Company to provide updates to the CCC members and for the members to ask questions regarding the status of operations activities. The chairperson's annual report notes that these community members are motivated and seek relevant up-to date information from the Company. No site inspections were carried out during the reporting period.

In addition to the CCC meetings, landholder notification letters were hand delivered to surrounding residences / residents on 17 November providing a brief overview of the planned site establishment works, timing (including Christmas shutdown) and providing contact details for any further enquiry.

10. INDEPENDENT AUDIT

Two independent environmental audits (IEAs) of the Quarry have been conducted to date in accordance with *Schedule 5 Condition 9* of PA 08_0212. These were undertaken during August 2017 and October 2020.

All recommendations from the August 2017 audit have now been completed (see **Table 11**).

Table 11
2017 Independent Audit Action Response Plan Status

Audit Recommendation	Action / Response	Status Update
It is recommended that the environmental management plans be reviewed and the management measures and monitoring programs revised if necessary to address implementation matters and accommodate the delayed commencement of works on the Quarry site.	The six environmental management plans and Environmental Management Strategy (EMS) required by PA 08_0212 are to be reviewed in light of the: <ul style="list-style-type: none"> • 2017 Independent Environmental Audit; • 2016 Annual Review and associated DPE comments; and • Modification 2 of PA 08_0212. 	Completed AQMP, EMS, NMP, TMP, LMP updated and submitted for review 10/11/2017. Approved 28/09/2018. AHMP Updated and submitted for review 21/09/2019. Approved 9/11/18. WMP Updated and submitted for review 31/01/2018. Four updates following review by agencies. WMP Rev 2.5 approved by DPIE 08/10/2020.
It is recommended that the environmental monitoring programs be reviewed and time for commencement and the frequency of monitoring be revised if necessary to meet the delayed commencement of works on the Quarry site, resulting from the timeframe change resulting from the requirement for the bridge works over Stony Creek (Project Approval 08_0212 MOD 2).	Update relevant monitoring program components within the management plans.	
Ensure dust deposition gauge bottle collection and analysis conforms with the monthly monitoring regime in the Air Quality Management Plan section 11.6 and AS 3580.10.1-2003.	Designation of alternative Austral personnel to complete collection and changeover of dust deposition gauge bottles.	Completed Primary collector –Environmental Manager. Secondary collector – Raw Materials & Mining Manager.
	Include confirmation of dust bottle collection and receipt of results into monthly checklist. <i>Note: The monthly checklist will also include confirmation of all applicable monitoring as outlined within the updated Management Plans.</i>	Completed The Raw Materials & Mining Manager maintains a monitoring calendar / planner and collection is completed in accordance with the Standard Operating Procedure for the site.
Progressive rehabilitation had not been implemented on the topsoil stockpiles in the area of the Central Visibility Barrier at the date of this audit and it is recommended that the implementation of Statement of Commitment occur to address the requirements of Project Approval 08_0212 Schedule 3 condition 34 and 35.	The soil stockpiles have naturally regenerated with no further action required however future soil stockpiles will be seeded as they are formed.	Completed Stockpiles were inspected during the 2020 audit and were noted to still have a vegetation covering.
	Include requirement to seed long-term soil stockpiles in future contractual agreements with earthmoving contractor.	Completed The capital expenditure program for the site establishment works includes allowance for hydromulching of soil and disturbed areas.

As a result of the 2020 audit one recommendation was made in relation to a non-compliance with the timeframe for submission of the 2017 independent audit (further discussed in Section 11). A summary of the audit recommendation, the proposed action/response and current status is presented in **Table 12**.

Table 12
2020 Independent Audit Action Response Plan Status

Audit Recommendation	Action / Response	Status Update
Austral Bricks should ensure that the Independent Audit Reports are submitted within 12 weeks of commencement of each audit	Ensure that 2020 IEA (and response) is submitted within the 12 week timeframe per Condition 5(9A) not the 3 month timeframe per Condition 5(10).	The 2020 IEA and response was submitted on 20 October 2020, <10 weeks from commencement of the 2020 IEA on 13 August 2020.
	During a future modification application for PA 09_0212 request removal of Condition 5(10) to reduce potential for confusion of required submission dates.	Not yet applicable. Specific timing is not applicable / action will be opportunistic based on any future modification applications lodged for other purposes.

11. INCIDENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD

During the reporting period there were no:

- reportable incidents or exceedances;
- official cautions, warning letters, penalty notices or prosecution proceedings; or
- non-compliances with PA 08_0212 or M(MO)L6.

It is noted that the 2020 IEA identified a previous non-compliance relevant to the 2017 reporting period. The non-compliance relates to *Schedule 5 Condition 9A* which requires the submission of the IEA and response within 12 weeks of commencing each audit. The 2017 IEA was submitted 3 months (13 weeks) following the commencement of that audit due to confusion with *Schedule 5 Condition 10* which requires the IEA to be submitted within 3 months of commissioning. It is planned to request removal of *Schedule 5 Condition 10* during the next modification application for the Project Approval.

12. ACTIVITIES TO BE COMPLETED IN THE NEXT REPORTING PERIOD

Activities planned to be completed during the next reporting period are outlined in Section 4.3 and planned improvements in environmental management practices in Sections 6 and 7. In summary, the key activities planned for the next reporting period are as follows.

- Completion of the construction and upgrade of water management structures (dams and diversion drains).
- Construction of the northern, central and southern visibility barriers.
- Construction of the western access road.
- Temporary rehabilitation of the visibility barriers and completed stockpiles.
- Planting of the visual tree screens.
- Continued environmental monitoring.
- Continued community consultation, principally through the CCC.

A further review and update, where necessary, to the management plans are currently planned to be undertaken during the next reporting period following the completion of site establishment activities with any aspects not relevant to ongoing operations to be removed. Any learnings from the site establishment and construction phase will also be reflected in the management plans.

Investigation of automated monitoring and notification systems will also continue to be undertaken, including the possible use of water level sensors and telemetry services, to assist with environmental monitoring and management.

This page has intentionally been left blank



Appendices

(Total No. of pages including blank pages = 60)

- Appendix 1 Compliance Review of Project Approval 08_0212 (32 pages)
- Appendix 2 Compliance Review of M(MO)L6 (6 pages)
- Appendix 3 Meteorological Data Recorded during 2020 (4 pages)
- Appendix 4 Ecological Compliance Report for Intersection Upgrade (16 pages)



This page has intentionally been left blank



Appendix 1

Compliance Review of Project Approval 08_0212

(Total No. of pages including blank pages = 32)



This page has intentionally been left blank



**Table A1-1
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period**

Page 1 of 29

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 2: ADMINISTRATION CONDITIONS				
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT				
2/1	In addition to meeting the specific performance criteria established under this approval, the Proponent must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the project.	Compliant	All reasonable and feasible measures to minimise potential for harm during the reporting period were implemented.	A, D
TERMS OF APPROVAL				
2/2	The Proponent must carry out the project generally in accordance with the: a) EA; b) EA (MOD 1); and c) EA (MOD 2).	Compliant	Activities during the reporting period are considered to be generally consistent these documents.	D, A
2/2A	The Proponent must carry out the project in accordance with the Project Plans, statement of commitments, and the conditions of this consent. <i>Notes:</i> a) <i>The Project Plans are shown in Appendix A; and</i> b) <i>The statement of commitments is reproduced in Appendix B.</i>	Compliant	Activities during the reporting period are considered to be generally consistent these conditions and commitments.	D, A
2/3	If there is any inconsistency between the documents in condition 2, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Noted	-	-
2/4	The Proponent must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and b) the implementation of any actions or measures contained in these documents.	Not Applicable	No specific requirements from the Secretary arose during the reporting period.	A
* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation				

Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Page 2 of 29

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 2: ADMINISTRATION CONDITIONS (Cont'd)				
LIMITS ON APPROVAL				
Quarrying Operations				
2/5	Consent shall lapse 31 December 2045. <i>Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of the Secretary or DRG. Consequently, this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the rehabilitation of the site and those undertakings have been carried out to a satisfactory standard.</i>	Noted	-	-
Extractive Material Extraction				
2/6	The Proponent must not carry out any development in the extraction area below a level of 640m AHD. <i>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).</i>	Not Yet Applicable	Extraction operations yet to commence.	D, A
2/7	The Proponent must not extract more than 150 000 tonnes of extractive materials from the site in any calendar year.	Not Yet Applicable	Transportation operations yet to commence.	D, A
Extractive Material Transport				
2/8	The Proponent must not transport more than:			
	a) 150 000 tonnes of product from the site in any calendar year;	Not Yet Applicable	Transportation operations yet to commence.	D, A
	b) 68 laden trucks from the site in a day; and	Not Yet Applicable	Transportation operations yet to commence.	D, A
	c) 8 laden trucks from the site in an hour.	Not Yet Applicable	Transportation operations yet to commence.	D, A
2/9	The Proponent must only transport extractive material on the haul route.	Not Yet Applicable	Transportation operations yet to commence.	D, A
STRUCTURAL ADEQUACY				
2/10	The Proponent must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.	Not Yet Applicable	No buildings, structures, etc. which the BCA applies have been constructed to date.	D, A
* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation				



Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 2: ADMINISTRATION CONDITIONS (Cont'd)				
STRUCTURAL ADEQUACY (Cont'd)				
	Notes: <ul style="list-style-type: none"> • <i>Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.</i> • <i>Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.</i> 			
DEMOLITION				
2/11	The Proponent must ensure that all demolition work on site is carried out in accordance with AS 2601-2001: The Demolition of Structures, or its latest version.	Not Applicable	Other than removal of some farm fencing (not a structure), no demolition undertaken during the reporting period.	D, A
PROTECTION OF PUBLIC INFRASTRUCTURE				
2/12	The Proponent must: <ol style="list-style-type: none"> 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. 	Not Yet Applicable	No infrastructure required to be repaired or relocated during the reporting period. Applications were lodged to provide for the relocation of a Telstra line and two survey marks. These will be relocated during the next reporting period at the expense of Austral.	D, A
OPERATION OF PLANT AND EQUIPMENT				
2/13	The Proponent must ensure that all plant and equipment used at the site is: <ol style="list-style-type: none"> a) maintained in a proper and efficient condition; and b) operated in a proper and efficient manner. 	Compliant	The earthmoving contractor maintained and operated all mobile equipment properly. This was aided through completion of operator pre-start checklists and visual checks of operational activities by the Austral Raw Materials and Mining Manager.	A, D
STAGED SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAM				
2/14	With the approval of the Secretary, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis. Notes: <ul style="list-style-type: none"> • <i>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</i> 	Not Applicable	The Management Plans prepared relate to all stages of operations.	D
* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation				



Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Page 4 of 29

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 2: ADMINISTRATION CONDITIONS (Cont'd)				
STAGED SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAM (Cont'd)				
2/14 (Cont'd)	<ul style="list-style-type: none"> 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				
2/15	The Proponent must:			
	a) provide annual quarry production data to DRG using the standard form for that purpose; and	Compliant	Extraction operations yet to commence. Notwithstanding, a 'nil' return was submitted 15/10/20.	D, A
	b) include a copy of this data in the Annual Review (see condition 4 of schedule 5).	Compliant	Table 4 of this Annual Review summarises the production data – confirming there has been nil to date.	D
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS				
IDENTIFICATION OF BOUNDARIES				
3/1	<p>Prior to carrying out any development on site under this approval, the Proponent must:</p> <p>a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction; and</p> <p>b) submit a survey plan of these boundaries to the Secretary.</p>	Compliant	Plans submitted on 18 March 2016.	D
3/2	During the project, the Proponent must ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify the limits of extraction.	Compliant	All relevant boundaries are marked with posts at nominated locations. These markers were retained throughout the reporting period.	A, O
NOISE				
Bund Construction				
3/3	<p>The Proponent must construct the Visibility Barriers prior to carrying out any quarrying operations on site under this approval to the satisfaction of the Secretary. This condition does not prohibit the winning of extractive material on site to be used in the construction of the Visibility Barriers.</p> <p><i>Note: Visibility Barriers are shown on the project layout plans in Figure 1 of APPENDIX A.</i></p>	Not Yet Applicable	Extraction operations have not yet commenced. The visibility barriers are planned to be completed during the next reporting period.	D, A, O
* = Basis for assessment of compliance				
D = Documentation Sighted A = Advised by Austral Employee O = Observation				



Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Condition No.	Requirement	Compliance	Comment	Basis*																									
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)																													
NOISE (Cont'd)																													
Visibility Barrier and Stockpile Dimensions																													
3/3A	<p>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.</p> <p><i>Table 1A: Visibility Barriers and Surplus Overburden Stockpile Dimensions</i></p> <table border="1" data-bbox="331 752 1358 965"> <thead> <tr> <th>Structure</th> <th>Height</th> <th>Base Width (m)</th> <th>Length (m)</th> <th>Surface Area (ha)</th> </tr> </thead> <tbody> <tr> <td>Central Barrier (minimum)</td> <td>675 (m AHD)</td> <td>30 - 45</td> <td>420</td> <td>1.5</td> </tr> <tr> <td>Northern Barrier (minimum)</td> <td>672 (m AHD)</td> <td>35 - 50</td> <td>160</td> <td>0.7</td> </tr> <tr> <td>Southern Barrier (minimum)</td> <td>4 metres above the natural land surface</td> <td>20</td> <td>350</td> <td>0.7</td> </tr> <tr> <td>Overburden Stockpile (maximum)</td> <td>683 (m AHD)</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Structure	Height	Base Width (m)	Length (m)	Surface Area (ha)	Central Barrier (minimum)	675 (m AHD)	30 - 45	420	1.5	Northern Barrier (minimum)	672 (m AHD)	35 - 50	160	0.7	Southern Barrier (minimum)	4 metres above the natural land surface	20	350	0.7	Overburden Stockpile (maximum)	683 (m AHD)	-	-	-	Not Yet Applicable	Construction of the visibility barriers is planned to be completed during the next reporting period.	D, A
Structure	Height	Base Width (m)	Length (m)	Surface Area (ha)																									
Central Barrier (minimum)	675 (m AHD)	30 - 45	420	1.5																									
Northern Barrier (minimum)	672 (m AHD)	35 - 50	160	0.7																									
Southern Barrier (minimum)	4 metres above the natural land surface	20	350	0.7																									
Overburden Stockpile (maximum)	683 (m AHD)	-	-	-																									
Noise Criteria – Bund Construction																													
3/4	<p>During the construction of the Visibility Barriers, the Proponent must ensure that the noise generated on site does not exceed the criteria in Table 1.</p> <p><i>Table 1 – Noise Criteria – Bund Construction</i></p> <table border="1" data-bbox="331 1323 1045 1417"> <thead> <tr> <th>Receiver</th> <th>L_{Aeq} (15 min) dB(A)</th> </tr> </thead> <tbody> <tr> <td>R2</td> <td>43</td> </tr> <tr> <td>All other receivers</td> <td>38</td> </tr> </tbody> </table> <p>Notes:</p> <ul style="list-style-type: none"> 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. 	Receiver	L _{Aeq} (15 min) dB(A)	R2	43	All other receivers	38	Not Yet Applicable	Construction of the barriers will commence during the next reporting period during which time noise monitoring will be completed. Note: noise monitoring undertaken 13 January 2021 (i.e. beyond this reporting period) during construction of Dam 7 from which excess material was placed to the Central Barrier footprint.	D, A																			
Receiver	L _{Aeq} (15 min) dB(A)																												
R2	43																												
All other receivers	38																												
Noise Criteria																													
3/5	<p>Except for the period when the Visibility Barriers are being constructed, the Proponent must ensure that the noise generated by the project does not exceed 38dB(a) LAeq (15min) at any residence on privately-owned land.</p> <p>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.</p>	Compliant	Low intensity operations involving commencement of construction of water management structures occurred during the reporting period. Noise monitoring (shortly beyond the reporting period) confirmed compliance with the noise criteria. Furthermore, no complaints have been received.	D, A																									
<p>* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>																													



Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Condition No.	Requirement	Compliance	Comment	Basis*																
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)																				
NOISE (Cont'd)																				
Hours of Operations																				
3/6	The Proponent must comply with the operating hours in Table 2. <i>Table 2 – Operating Hours</i>	Compliant	No construction activities were undertaken outside of the approved hours of operation.	A																
<table border="1"> <thead> <tr> <th>Day</th> <th>Transport</th> <th>Quarrying Operations</th> <th>Construction</th> </tr> </thead> <tbody> <tr> <td>Monday – Friday</td> <td>7 am to 4 pm</td> <td>7 am to 5 pm</td> <td>7 am – 5 pm</td> </tr> <tr> <td>Saturday</td> <td>8 am to 1 pm</td> <td>8 am to 1 pm</td> <td>8 am – 1 pm</td> </tr> <tr> <td>Sundays and Public Holidays</td> <td>None</td> <td>None</td> <td>None</td> </tr> </tbody> </table>					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
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																	
<i>Note: Maintenance activities may occur at any time provided they are inaudible at privately-owned residences.</i>																				
Operating Conditions																				
3/7	The Proponent must:																			
	a) implement best practice noise management to minimise the construction, operational, low frequency and traffic noise of the project;	Compliant	Management measures included checks to ensure all mobile equipment fitted with broadband reversing alarms, proper maintenance (no rattles etc) – through daily pre-start checks, checks of forecast weather conditions etc. No noise management issues arose during the reporting period.	A																
	b) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply;	Not Yet Applicable	Applicable conditions have not yet occurred during periods of site activity.	A																
	c) 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	Compliant	As above for item a).	A																
	d) 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.	Not Yet Applicable	No data yet assembled. Noise monitoring to commence following this reporting period. No issues with noise have arisen to date and no complaints have been received.	A																
Noise Management Plan																				
3/8	The Proponent must prepare a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:	Compliant	The Plan was submitted to the Secretary on 18 March 2016 and approved on 13 May 2016. The Plan was last updated and approved 28 September 2018.	D																
	a) be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to the construction of the Visibility Barriers;																			
* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation																				

Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Condition No.	Requirement	Compliance	Comment	Basis*								
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)												
AIR QUALITY (Cont'd)												
Air Quality Criteria (Cont'd)												
3/9 (Cont'd)	<p><i>Table 5 – Long-Term Impact Assessment Criteria for Deposited Dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^c Deposited dust</td> <td>Annual</td> <td>^b 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table> <p><i>Notes to Tables:</i></p> <ul style="list-style-type: none"> <i>a Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources);</i> <i>b Incremental impact (ie incremental increase in concentrations due to the project on its own);</i> <i>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.</i> <i>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.</i> <p><i>e “Reasonable and feasible avoidance measures” includes, but is not limited to, the operational requirements in conditions 10, 11 and 12 to develop and implement an air quality management system that ensures operational responses to the risks of exceedance of the criteria.</i></p>			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	
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									
Operating Conditions												
3/10	<p>The Proponent must:</p> <p>a) implement best management practice to minimise the dust emissions of the project;</p> <p>b) 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,</p> <p>c) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note d under Table 5 above);</p> <p>d) minimise any visible off-site air pollution; and</p> <p>e) minimise the surface disturbance of the site generated by the project.</p>	<p>Compliant</p> <p>Compliant</p> <p>Compliant</p> <p>Compliant</p> <p>Compliant</p>	<p>Air quality controls have included regular use of the water cart, hydromulching completed areas, use of bunting and sediment fencing and site traffic control plan to minimise trafficked areas.</p> <p>Deposited dust monitoring data complies with nominated criteria.</p> <p>Construction activities were suspended on 7 December 2020 due to high winds (predicted winds was 35km/hr and recorded winds were 70km/hr).</p> <p>The use of the water cart sufficiently controlled visible dust, which was regularly assessed by the earthmoving contractor and Raw Materials and Mining Manager.</p> <p>Disturbances have been limited and completed areas hydromulched to reduce the area subject to wind (and water) erosion.</p>	<p>A</p> <p>D</p> <p>A</p> <p>A</p> <p>A, D</p>								
<p>* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>												

Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
AIR QUALITY (Cont'd)				
Air Quality Management Plan				
3/11	<p>The Proponent must prepare an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> a) be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to the construction of the Visibility Barriers b) describes the measures that would be implemented to ensure: <ul style="list-style-type: none"> • best management practice is employed; • the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events; and • compliance with the relevant conditions of this approval; c) describes the proposed air quality management system; and d) includes an air quality monitoring program that: <ul style="list-style-type: none"> • 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. <p>The Proponent must implement the approved management plan as approved from time to time by the Secretary.</p>	Compliant	The Plan was submitted to the Secretary on 18 March 2016 and approved on 13 May 2016. The Plan was last updated and approved 28 September 2018.	D
METEOROLOGICAL MONITORING				
3/12	<p>During the life of the project, the Proponent must ensure that there is a suitable meteorological station in the vicinity of the site that complies with the requirements in the "Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales" guideline.</p>	Compliant	A station was established on site on 19 September 2016 and remains operational.	D, O
<p>* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>				



**Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period**

Page 10 of 29

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
SOIL AND WATER				
	<i>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.</i>	Not Yet Applicable	No water licences currently required.	D
Riparian Buffer Distance				
3/13	The Proponent must maintain a minimum buffer distance of 515 metres (measured from the top of bank) between extraction area and Wingecarribee River.	Compliant	No extraction activities occurred within the nominated buffer during the reporting period.	D, A
Surface Water Discharging				
3/14	The Proponent must ensure that all surface water discharges from the site comply with section 120 of the POEO Act or, if an EPL has been issued regulating water discharges from the site, the discharge limits (both volume and quality) set for the project in the EPL.	Not Yet Applicable	No discharges occurred during the reporting period.	A
Surface Water Supply				
3/15	The Proponent must ensure it has sufficient water for all stages of the project, and if necessary, adjust the scale of quarrying operations on site to match its available supply.	Compliant	Existing farm dams on-site have provided the initial water supply for dust suppression.	D, A
On-Site Sewerage Management				
3/16	The Proponent must manage on-site sewage to the satisfaction of Council and EPA.	Compliant	A porta-loo is retained on site and managed by a licenced contractor. Satisfaction of Council and EPA has not been determined.	A
Storage of Chemicals & Petroleum Products				
3/17	The Proponent must ensure all chemicals and/or petroleum products on site are stored in accordance with Australian Standard AS1940-2004, The Storage and Handling of Flammable and Combustible Liquids, and in appropriately bunded areas with impervious flooring and of sufficient capacity to contain 110% of the largest container stored within the bund. The flooring and bund(s) must be designed in accordance with: <ul style="list-style-type: none"> • the requirements of relevant Australian Standards; and • DECC's Storing and Handling Liquids: Environmental Protection – Participants Manual. 	Compliant	Refuelling of the mobile equipment was undertaken using a road-registered mobile refuelling truck. The refuelling truck was not kept on site. A bunded pallet within the storage container was used for storage of minor volumes of oils and grease.	A

* = Basis for assessment of compliance

D = Documentation Sighted

A = Advised by Austral Employee

O = Observation

Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Page 11 of 29

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
SOIL AND WATER (Cont'd)				
Water Management Plan				
3/18	<p>The Proponent must prepare a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with the EPA, WaterNSW and DPI – Water by suitably qualified and experienced persons whose appointment has been approved by the Secretary, and be submitted to the Secretary for approval prior to the construction the Visibility Barriers on site.</p> <p>In addition to the standard requirements for management plans (see condition 3 of schedule 5), this plan must include a:</p> <p>a) Site Water Balance that:</p> <ul style="list-style-type: none"> • includes details of: <ul style="list-style-type: none"> – 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; <p>b) Surface Water Management Plan, that includes:</p> <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> – 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; 	Compliant	The Plan was submitted to the Secretary on 18 March 2016 and approved on 9 June 2016. The Plan was last updated and approved 8 October 2020.	D
<p>* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>				



Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
SOIL AND WATER (Cont'd)				
Water Management Plan (Cont'd)				
3/18 (Cont'd)	<ul style="list-style-type: none"> • detailed plans, including design objectives and performance criteria, for: <ul style="list-style-type: none"> – the water storage dams; and – reinstatement of drainage lines on the rehabilitated areas of the site; – control of water pollution from rehabilitated areas of the site; • performance criteria for 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: <ul style="list-style-type: none"> – 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 <p>c) Groundwater Management Plan, which includes:</p> <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> – groundwater inflows to the quarrying operations; – the impacts of the project on: <ul style="list-style-type: none"> ○ local alluvial aquifers; ○ any groundwater bores on privately-owned land that could be affected by the project; 			
<p>* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>				

Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Page 13 of 29

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
SOIL AND WATER (Cont'd)				
Water Management Plan (Cont'd)				
3/18 (Cont'd)	<ul style="list-style-type: none"> ○ 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; <p>The Proponent must implement the approved management plan as approved from time to time by the Secretary.</p>			
Groundwater Monitoring				
3/18A	The Proponent must install 3 pairs of nested piezometers prior to the quarry pit floor reaching 660m AHD, in consultation with DPI – Water and to the satisfaction of the Secretary.	Compliant	Whilst extraction operations have not yet commenced (and therefore the 660m AHD level has not yet been reached), acceptance of the monitoring approach was received from NRAR on 27 May 2019 and the piezometers installed during July 2019.	D
VISUAL				
Establishment of Effective Vegetative Screens				
3/19	The Proponent must vegetate (with grasses, shrubs and trees) the Visibility Barriers as soon as practicable after the completion of the construction of the bunds, to the satisfaction of the Secretary.	Not Yet Applicable	Barriers not yet constructed.	D, A
3/19A	Prior to transporting any product from the site, the Proponent must establish a 0.68 ha tree screen adjacent to the Northern Visibility Barrier, as shown on Figure 1 in Appendix A. The screen must include native plant species from the <i>Southern Highlands Shale Woodland Endangered Ecological Community</i> .	Not Yet Applicable	No product transportation has occurred to date.	A
Advertising				
3/20	The Proponent must not erect or display any advertising structure(s) or signs on the site without the written approval of the Secretary. <i>Note: This condition does not require approval for any business identification, traffic management, and/or safety or environmental signs.</i>	Not Yet Applicable	No advertising structures are required or have been erected for the quarry.	D, A
<p>* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>				



Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Page 14 of 29

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
VISUAL (Cont'd)				
Operating Conditions				
3/21	The Proponent must: a) implement all reasonable and feasible measures to minimise the visual impacts and any off-site lighting impacts of the project; and b) maintain and improve the effectiveness of the bunds and vegetative screens over the life of the project.	Not Yet Applicable	No lighting was required to be used on-site during the reporting period.	A
		Not Yet Applicable	Barriers not yet constructed	D, A
3/22	Deleted			
TRANSPORT				
Road Upgrades (Local Roads)				
3/23	Prior to transporting any extractive material from the site, the Proponent must: a) construct the junction of the site access road with Berrima Road to Basic Right Turn and Basic Left Turn Treatment standard for a 19m semi-trailer; b) construct a raised concrete median in Berrima Road on the south bound approach to its junction with MR372; c) provide appropriate traffic signage and line-marking, in accordance with AUSTRROADS <i>Guide to Road Design</i> and to the satisfaction of the Council.	Not Yet Applicable	No product transportation has occurred to date.	A
		Not Yet Applicable	Construction not yet completed.	A, D
		Not Yet Applicable	Construction not yet completed.	A, D
		Not Yet Applicable	Construction not yet completed.	A, D
Road Upgrades (Main Roads)				
3/24	Prior to transporting any extractive material from the site, the Proponent must: a) construct the Berrima Road/Taylor Avenue junction to give priority to MR372 incorporating Rural BA Left and Right turn treatments for a 19m semi-trailer; b) provide appropriate traffic signage and line-marking, in accordance with AUSTRROADS <i>Guide to Road Design</i> and to the satisfaction of the Council and the RMS.	Not Yet Applicable	No product transportation has occurred to date.	A
* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation				

Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Page 15 of 29

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
TRANSPORT (Cont'd)				
Road Upgrades (Main Roads) (Cont'd)				
3/24 (Cont'd)	<p>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.</p> <p>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.</p>			
Transport Route				
3/25	The Proponent must ensure heavy vehicles associated with the Project travel along haulage routes specified in the EA and the haulage route diagram in Figure 3 of APPENDIX A to this approval to the satisfaction of the Secretary.	Not Yet Applicable	Despatch of clay/shale has not yet commenced.	A
Road Maintenance Contribution				
3/26	<p>The Proponent must pay to Council an annual contribution of 91.2 cents per cubic metre of extractive material exported from the site (indexed annually to Consumer Price Index) for the life of the Project. The volume of extractive material exported from the site must be established by way of a volumetric survey of the site carried out by a registered surveyor. Each annual volumetric survey must be provided to Council to allow verification of the contribution amount. The first annual payment falls due 12 months from the commencement of operation.</p> <p><i>Note: The Proponent must provide a base-line survey of the site to the Council prior to the commencement of operations.</i></p>	Not Yet Applicable	Despatch of clay/shale has not yet commenced.	A
<p>* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>				



Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Page 16 of 29

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
TRANSPORT (Cont'd)				
Parking				
3/27	The Proponent must provide sufficient parking for all project-related traffic, in accordance with Council's parking code.	Compliant	Dedicated parking areas are available on site with no on-street parking required.	A
Operating Conditions				
3/28	The Proponent must ensure that:			
	a) vehicles on site do not exceed a speed limit of 30 kilometres per hour;	Compliant	Company policy nominates a speed limit of 30kph on site.	A
	b) all loaded vehicles entering or leaving the site have their loads covered; and	Not Yet Applicable	Despatch of clay/shale has not yet commenced.	A
	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.	Not Yet Applicable	Despatch of clay/shale has not yet commenced.	A
Transport Management Plan				
3/29	The Proponent must prepare a Transport Management Plan for the project to the Secretary. This plan must: a) be submitted prepared in consultation with the RMS and Council, and submitted to the Secretary for approval prior to carrying out any quarrying operations on site; b) include a drivers' code of conduct for the project; c) describe the measures that would be implemented to ensure: <ul style="list-style-type: none">• 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.	Compliant	The Plan was submitted to the Secretary on 18 March 2016 and approved on 13 May 2016. The Plan was last updated and approved 28 September 2018. Transport operations have not yet commenced.	D, A
* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation				

**Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period**

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
TRANSPORT (Cont'd)				
Transport Management Plan (Cont'd)				
3/29 (Cont'd)	The Proponent must implement the approved management plan as approved from time to time by the Secretary.			
3/30	Should the Traffic Management Plan (TMP) for the proposed works require a reduction of the speed limit on Berrima Road and/or Taylor Avenue, a Speed Zone Authorisation must be obtained from RMS Traffic Operations Unit (TOU) prior to commencing work within the road reserve.	Not Yet Applicable	Authorisation not currently required.	A
WASTE				
3/31	The Proponent must: <ul style="list-style-type: none"> 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. 	Compliant	Information on waste volume provided in Section 6.5 of this document.	D
	b) investigate ways to minimise waste generated by the project;	Compliant	All contractors are required to remove their own waste from site.	A
	c) implement reasonable and feasible measures to minimise waste generated by the project;	Compliant	All contractors are required to remove their own waste from site.	A
	d) ensure that all waste generated by the project is lawfully disposed of to an appropriate facility; and	Compliant	All contractors are required to dispose of all wastes lawfully.	A
	e) report on waste management and minimisation in the annual review, to the satisfaction of the Secretary.	Compliant	See Section 6.5 of this document.	D
ABORIGINAL HERITAGE				
Aboriginal Heritage Management Plan				
3/32	The Proponent must prepare an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> • protocol for the engagement of an Aboriginal Site Officer for any necessary ground disturbance monitoring; 	Compliant	The Plan was submitted to the Secretary on 18 March 2016 and approved on 13 May 2016. The Plan was last updated and approved 28 September 2018. A further administrative update was approved 9 November 2018.	D
* = Basis for assessment of compliance				
D = Documentation Sighted		A = Advised by Austral Employee		O = Observation

Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Page 18 of 29

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
ABORIGINAL HERITAGE (Cont'd)				
Aboriginal Heritage Management Plan (Cont'd)				
3/32 (Cont'd)	<ul style="list-style-type: none"> 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. <p>The Proponent must implement the approved management plan as approved from time to time by the Secretary.</p>			
3/32A	<p>If any item or object of potential Aboriginal heritage significance is identified during works associated with the project, the Proponent must ensure that:</p> <ol style="list-style-type: none"> all work in the immediate vicinity of the potential Aboriginal item or object ceases immediately; a 10m buffer area around the potential item or object is cordoned off; and the OEH is contacted immediately. <p>Work in the immediate vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the <i>National Parks and Wildlife Act 1974</i>.</p>	Not Applicable	No Aboriginal heritage objects or objects suspected of being of Aboriginal origin were located during the reporting period.	D, A
LANDSCAPE				
Rehabilitation Objectives				
3/33	The Proponent must rehabilitate the site to the satisfaction of the DRG. This rehabilitation must be consistent with the proposed rehabilitation strategy in the EA (MOD 1), and comply with the objectives in Table 6.	Not Yet Applicable	No areas of final rehabilitation have yet become available. During the reporting period temporary rehabilitation was undertaken on available / completed areas.	D, A
<p>* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>				

Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
LANDSCAPE (Cont'd)				
Rehabilitation Objectives (Cont'd)				
3/33 (Cont'd)	Table 6 – Rehabilitation Objectives			
	Feature	Objective		
	Site (as a whole)	Safe, stable & non-polluting		
	Surface Infrastructure	To be decommissioned and removed, unless the DRG 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				
3/34	The Proponent must rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies must be employed when areas prone to dust generation cannot yet be permanently rehabilitated.	Compliant	The previously created soil stockpiles were adequately grassed with supplementary hydromulching undertaken in February 2018. During the reporting period, hydromulching was undertaken to rehabilitate the embankments of Dams 5, 7 and 10, surrounding disturbed area and a silt placement area (within the extraction area). Monitoring indicates dust generation has not been adverse.	D, A
Landscape Management Plan				
3/35	The Proponent must prepare a Landscape Management Plan for the project to the satisfaction of the Secretary. This plan must: <ol style="list-style-type: none"> 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: <ul style="list-style-type: none"> • 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; 	Compliant	The Plan was submitted to the Secretary on 18 March 2016 and approved on 13 May 2016. The Plan was last updated and approved 28 September 2018.	D
* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation				



Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Page 20 of 29

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 3: ENVIRONMENTAL PERFORMANCE CONDITIONS (Cont'd)				
LANDSCAPE (Cont'd)				
Landscape Management Plan (Cont'd)				
3/35 (Cont'd)	<p>c) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggering remedial action (if necessary);</p> <p>d) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:</p> <ul style="list-style-type: none"> • 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; <p>e) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;</p>			
<p>* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>				



Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Page 22 of 29

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 4: ADDITIONAL PROCEDURES (Cont'd)				
INDEPENDENT REVIEW (Cont'd)				
4/2 (Cont'd)	<p>If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision the Proponent must:</p> <p>a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:</p> <ul style="list-style-type: none"> • 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; <p>b) give the Secretary and landowner a copy of the independent review; and</p> <p>c) comply with any written requests made by the Secretary to implement any findings of the review.</p>			
4/3	<p>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.</p> <p>If the independent review determines that the project is not complying with the relevant criteria in schedule 3, then the Proponent must:</p> <p>a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until the project complies with the relevant criteria; or</p> <p>b) secure a written agreement with the landowner to allow exceedances of the relevant criteria,</p> <p>to the satisfaction of the Secretary.</p>	Not Applicable	No requests for an independent review are known to have been submitted to date.	A
<p>* = Basis for assessment of compliance</p> <p>D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>				



Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 5: ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING				
ENVIRONMENTAL MANAGEMENT				
Environmental Management Strategy				
5/1	<p>The Proponent must prepare and an Environmental Management Strategy for the project to the satisfaction of the Secretary. The strategy must:</p> <ol 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; e) 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; and • respond to emergencies; and f) 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>The Proponent must implement the approved strategy as approved from time to time by the Secretary.</p>	Compliant	The Plan was submitted to the Secretary on 18 March 2016 and approved on 13 May 2016. The Strategy was last updated and approved 28 September 2018.	D
<p>* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>				

Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 5: ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING (Cont'd)				
ENVIRONMENTAL MANAGEMENT (Cont'd)				
Adaptive Management				
5/2	The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.	Not Yet Applicable	No exceedances of criteria have occurred to date.	A
	Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must, at the earliest opportunity:			
	a) take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur;	Not Yet Applicable	No exceedances of criteria have occurred to date.	A
	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	Not Yet Applicable	No exceedances of criteria have occurred to date.	A
	c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.	Not Yet Applicable	No directions received from the Secretary during the reporting period.	D
Management Plan Requirements				
5/3	The Proponent must ensure that the Management Plans required under this approval are prepared in accordance with any relevant guidelines, and include: a) detailed baseline data; b) a description of: • the relevant statutory requirements (including any relevant approval, licence or lease conditions); • any relevant limits or performance measures/criteria; and • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;	Compliant	All management plans were prepared as required by the Project Approval and approved by the Secretary. The updated management plans submitted also address these matters, as applicable.	D
* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation				

Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 5: ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING (Cont'd)				
ENVIRONMENTAL MANAGEMENT (Cont'd)				
Management Plan Requirements (Cont'd)				
5/3 (Cont'd)	<p>c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> • impacts and environmental performance of the project; and • effectiveness of any management measures (see (c) above); <p>e) a contingency plan to manage any unpredicted impacts and their consequences;</p> <p>f) a program to investigate and implement ways to improve the environmental performance of the project over time;</p> <p>g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the impact assessment criteria and/or performance criteria; and <p>h) a protocol for periodic review of the plan.</p> <p><i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>			
Annual Review				
5/4	<p>By the end of December 2016, and annually thereafter, the Proponent must review the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <p>a) describe the development (including rehabilitation) that was carried out in the previous calendar year, and the works that are proposed to be carried out over the next year;</p>	Compliant	The first Annual Review was prepared for 2016 and the report updated as directed by the Secretary. This Annual Review has been prepared in accordance with this condition.	D
<p>* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>				



Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 5: ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING (Cont'd)				
ENVIRONMENTAL MANAGEMENT (Cont'd)				
Annual Review (Cont'd)				
5/4 (Cont'd)	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 documents listed in condition 2 of Schedule 2; c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; d) identify any trends in the monitoring data over the life of the project; e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and f) describe what measures will be implemented over the next year to improve the environmental performance of the project.			
Revision of Strategies, Plans and Programs				
5/5	Within 3 months of the submission of an: <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 must review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary. 	Compliant	All management plans were reviewed during the preparation of the 2019 Annual Review and the DPIE notified of the review. Excluding the Water Management Plan, which is awaiting approval, no updates to remaining management plans were required. A further review of the management plans was undertaken following the 2020 IEA and the DPIE notified (19 January 2021) that no updates were required at that time.	D, A
* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation				



Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Page 28 of 29

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 5: ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING (Cont'd)				
ENVIRONMENTAL MANAGEMENT (Cont'd)				
Regular Reporting (Cont'd)				
5/8	The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.	Compliant	Any relevant information is posted on the Austral website.	D, A
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 must commission, commence 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 License (including any assessment, plan or program required under these approvals); d) review the adequacy of any approved strategy, plan or program required under these approvals; e) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals; and f) be conducted and reported to the satisfaction of the Secretary. <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>	Compliant	<p>The initial independent audit was undertaken in August 2017 (i.e. within 1 year following physical commencement).</p> <p>The latest independent audit was undertaken by AQUAS (approved by DPIE 27/07/20) and commenced 13 August 2020. The audit addressed the required aspects.</p>	D
<p>* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>				



Table A1-1 (Cont'd)
Compliance Review of PA 08_0212
for New Berrima Clay/Shale Quarry for the Reporting Period

Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDULE 5: ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING (Cont'd)				
INDEPENDENT ENVIRONMENTAL AUDIT (Cont'd)				
5/9A	Within 12 weeks of commencing each audit, unless the Secretary agrees otherwise, the Proponent must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of any measures proposed to address the recommendations.	Compliant	The audit was submitted 20 October 2020 with the response action plan (i.e. within the required 12 week period).	D
5/10	Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.	Compliant	The 2020 audit was commissioned following approval of the auditor on 27 July 2020 and the final audit report and response submitted 20 October 2020, i.e. within the 3 month period.	D
ACCESS TO INFORMATION				
5/11	<p>Following the commencement of development on site under this approval, the Proponent must:</p> <p>a) make the following information publicly available on its website:</p> <ul style="list-style-type: none"> the documents listed in condition 2 of Schedule 2; current statutory approvals for the project; approved strategies, plans or programs; a summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval; a complaints register, updated on a quarterly basis; minutes of CCC meetings; copies of any annual reviews (over the last 5 years); any independent environmental audit, and the Proponent's response to the recommendations in any audit; and any other matter required by the Secretary; and <p>b) keep this information up-to-date, to the satisfaction of the Secretary.</p>	Compliant	The required documentation is maintained on the Austral website and appears up to date.	D
<p>* = Basis for assessment of compliance D = Documentation Sighted A = Advised by Austral Employee O = Observation</p>				

This page has intentionally been left blank



Appendix 2

Compliance Review of M(MOL)6

(Total No. of pages including blank pages = 6)



This page has intentionally been left blank



Table A
Compliance Review – M(MO)L 6

Page 1 of 4

Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
General Conditions				
1. Rehabilitation				
	Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.	Not Yet Applicable	No areas have become available for final rehabilitation. Notwithstanding, temporary rehabilitation has been undertaken of available areas.	D, A
2. Mining Operations Plan				
(a)	The leaseholder must comply with an approved Mining Operations Plan (MOP) in carrying out any significant surface disturbing activities, including mining operations, mining purposes and prospecting. The leaseholder must apply to the Minister for approval of a MOP. An approved MOP must be in place prior to commencing any significant surface disturbing activities, including mining operations, mining purposes and prospecting.	Compliant	The MOP for M(MO)L6 was approved by the Resources Regulator on 19 September 2018 with further approval received 24 May, 8 and 12 July 2019 providing for drilling of both piezometers and quality control holes. Activities during the reporting period remained in accordance with the approved MOP.	D, A
(b)	The MOP must identify the post mining land use and set out a detailed rehabilitation strategy which: i) Identifies areas that will be disturbed; ii) Details the staging of specific mining operations, mining purposes and prospecting; iii) Identifies how the mine will be managed and rehabilitated to achieve the post mining land use; iv) Identifies how mining operations, mining purposes and prospecting will be carried out in order to prevent and or minimise harm to the environment; and v) Reflects the conditions of approval under: – the <i>Environmental Planning and Assessment Act 1979</i> ; – the <i>Protection of the Environment Operations Act 1997</i> ; and – any other approvals relevant to the development including the conditions of this mining lease.	Compliant	MOP Plan 5 identifies the ultimate extent of disturbance and rehabilitation. MOP Section 2 outlines the mining operations during the MOP term and includes an indicative yearly production summary. Plans 3A to 3G also provided indicative annual 'staging'. MOP Sections 5 to 8 outline the rehabilitation phases, completion criteria and activities during and following the MOP term. Environmental management measures are principally outlined in MOP Section 3. Relevant conditional requirements for other approvals are outlined within MOP Section 4.1.	D
(c)	The MOP must be prepared in accordance with the <i>ESG3: Mining Operations Plan (MOP) Guidelines</i> .	Compliant	MOP Section 1.1 confirms the MOP has been prepared in accordance with these guidelines. Section headings and information presented are also generally consistent with ESG3.	D
Yes# No# - Complied / not complied with. Compliance no longer required to be assessed				
* = Basis for assessment of compliance				
D = Documentation sighted				
A = Advised by Company Employee				
O = Observation during inspection				



Table A (Cont'd)
Compliance Review – M(MO)L 6

Page 2 of 4

Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
General Conditions (Cont'd)				
(d)	The leaseholder may apply to the Minister to amend an approved MOP at any time.	Not Yet Applicable	No MOP amendments have been sought to date (as the original MOP provided for drilling activities subject to receipt of activity approval).	D, A
3. Annual Rehabilitation Report				
(a)	The leaseholder must submit an Annual Rehabilitation Report which includes, but is not limited to the following: <ul style="list-style-type: none"> i) A plan, or plans, which identifies the location (including coordinates) of all disturbance areas that are the subject of previous, current or future rehabilitation activities. ii) A brief description of all surface disturbing activities carried out during the report period. The location and size (in hectares) of each of the disturbance areas is to be identified on a plan. iii) A brief description of rehabilitation undertaken during the reporting period (for example, area reshaped and seeded for pasture). The location and size (in hectares) of the rehabilitation areas are to be identified on a plan. iv) A description of rehabilitation monitoring programs and analysis of results of rehabilitation monitoring programs, including a summary of whether rehabilitation is trending towards meeting the objectives and completion criteria. v) A brief description of the rehabilitation care and maintenance works to be undertaken over the next 12 months to address the outcomes of the monitoring program. vi) A brief description of the rehabilitation forecast for the next 12 months. The location and size (in hectares) of the proposed rehabilitation areas are to be identified on a plan. vii) Photographs of each disturbance area including those areas where rehabilitation activities have been conducted. 	Compliant	Correspondence from the Resources Regulator dated 19 June 2018 confirm that the Annual Review (as required by Project Approval 08_0212) can be accepted in lieu of an Annual Rehabilitation Report. The 2019 Annual Review was submitted on 28 February 2019 (i.e. within the required timeframe).	D
(b)	The Annual Rehabilitation Report must be submitted within 90 days of the grant anniversary date, unless otherwise approved by the Secretary.	Compliant	As above.	D
<p>Yes# No# - Complied / not complied with. Compliance no longer required to be assessed * = Basis for assessment of compliance D = Documentation sighted</p> <p style="text-align: right;">A = Advised by Company Employee O = Observation during inspection</p>				

Table A (Cont'd)
Compliance Review – M(MO)L 6

Page 3 of 4

Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
General Conditions (Cont'd)				
4. Non-compliance and Incident Reporting				
(a)	The leaseholder must notify the Department immediately after becoming aware of any of the following: i) Any breaches of the conditions of this mining lease or breaches of the Act or Regulation. ii) Any breaches of environment protection legislation causing or threatening material harm to the environment, arising in connection with significant surface disturbing activities, including mining operations, mining purposes and prospecting operations, under this mining lease. iii) Any notification made under section 148 of the <i>Protection of the Environment Operations Act 1997</i> arising in connection with significant surface disturbing activities including mining operations, mining purposes and prospecting operations, under this mining lease.	Not Applicable	No breaches of this lease or breaches causing or threatening environmental harm and no notifications under S148 of the POEO Act occurred during the reporting period.	D, A
(b)	Notifications must be provided through the Department's website.	Not Applicable	As above.	D, A
5. Environmental Incident Report				
(a)	The leaseholder must submit an Environmental Incident Report to the Department within seven (7) days of: i) All breaches referred to in condition 4(a)(i) that caused or threatened material harm to the environment; ii) All breaches referred to in condition 4(a)(ii).	Not Applicable	As above.	D, A
(b)	The Environmental Incident Reporting must include the following: i) The details of the mining lease; ii) Contact details for the leaseholder; iii) A map identifying the location of the incident and where material harm to the environment has or is likely to occur; iv) A description of the nature of the incident or breach, likely causes and consequences; v) A timetable showing actions taken or planned to address the incident and to prevent future incidents or breaches referred to in condition 5(a);	Not Applicable	As above.	D, A
<p>Yes# No# - Complied / not complied with. Compliance no longer required to be assessed * = Basis for assessment of compliance D = Documentation sighted</p> <p style="text-align: right;">A = Advised by Company Employee O = Observation during inspection</p>				



Table A (Cont'd)
Compliance Review – M(MO)L 6

Page 4 of 4

Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
General Conditions (Cont'd)				
5. Environmental Incident Report (Cont'd)				
(b) (Cont'd)	vi) Summary of all previous incidents or breaches which have occurred in the previous 12 months relating to significant surface disturbing activities, including mining operations; and vii) Mining purposes and prospecting operations under this mining lease.			
6. Security				
(a) (b)	The leaseholder is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the mining lease, including obligations of all or any kind under the mining lease that may arise in the future. Amount: \$10,000. Licence holder's entitlement to interest: none.	Compliant	A bond of \$10,000 was paid on 11 April 2017. Following receipt of a Notice of Assessed Deposit dated 19 September 2018 (in response to the submitted MOP and Rehabilitation Cost Estimate), a bank guarantee for \$489,000 was established (dated 17 October 2018).	A
Yes# No# - Complied / not complied with. Compliance no longer required to be assessed * = Basis for assessment of compliance D = Documentation sighted				
			A = Advised by Company Employee O = Observation during inspection	

Appendix 3

Meteorological Data Recorded during 2020

(Total No. of pages including blank pages = 4)



This page has intentionally been left blank



Table A3-1
2020 Daily Rainfall Records – New Berrima Clay/Shale Quarry Weather Station

Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	4.0	0.2	0.6	0.0	0.0	0.0	2.6	18.0	3.2
2	0.0	2.2	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4
3	0.0	0.0	1.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0
4	0.0	0.0	5.8	2.6	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0
5	0.8	0.0	19.8	0.0	0.2	0.2	0.0	0.0	0.0	0.0	27.4	2.2
6	0.2	4.8	1.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.0
7	1.2	29.4	0.2	0.0	0.0	0.2	0.6	26.6	0.0	4.4	0.0	0.2
8	0.0	28.6	0.0	0.0	0.0	0.0	0.2	26.8	0.0	3.4	0.0	0.0
9	0.2	98.0	0.2	0.2	0.0	0.4	0.0	52.2	1.2	0.0	0.0	0.0
10	0.0	13.4	0.0	9.6	0.0	3.0	0.2	17.6	0.4	0.0	0.0	0.8
11	0.4	9.8	0.0	0.0	0.0	0.0	3.2	1.0	0.0	0.0	0.2	0.2
12	0.2	14.2	0.4	0.0	0.0	1.2	20.4	0.8	0.2	0.0	0.0	0.0
13	0.0	21.6	0.0	0.0	0.0	0.2	0.6	0.0	0.8	0.2	7.8	1.4
14	0.0	0.2	8.4	0.0	0.0	6.6	11.8	8.4	0.0	0.0	0.4	3.2
15	0.0	8.2	0.0	0.0	0.6	0.0	1.8	0.8	0.0	0.0	0.0	8.4
16	7.2	0.2	1.2	0.0	1.2	0.0	0.0	0.0	0.0	2.4	0.0	25.4
17	4.2	0.6	0.2	0.0	0.2	0.2	0.0	0.0	0.0	0.2	0.0	0.2
18	7.6	25.6	0.2	0.0	2.0	0.2	0.0	1.0	0.8	2.4	0.4	0.0
19	0.6	0.0	0.0	0.0	0.6	0.0	0.2	7.6	0.0	0.0	0.0	0.4
20	5.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	8.6	0.2	0.0	0.4
21	0.0	0.0	0.0	3.2	31.2	5.2	0.0	3.2	3.8	0.0	0.0	10.0
22	0.0	0.2	0.0	0.0	15.6	0.0	0.0	0.0	0.0	0.0	0.0	5.0
23	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	12.4	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	12.4	0.0	0.0
25	0.0	0.0	4.0	0.0	4.6	0.0	3.2	0.0	5.4	21.4	0.0	0.0
26	0.0	0.2	0.6	0.0	5.2	0.0	25.2	0.0	0.0	7.8	0.0	1.4
27	0.0	0.0	4.6	0.0	0.2	0.0	61.6	0.0	0.0	2.2	0.0	0.2
28	0.0	0.0	0.2	0.2	0.2	0.2	21	0.0	0.0	0.4	2.8	1.2
29	0.0	0.0	1.0	11.6	0.0	0.4	0.0	0.0	0.0	12.6	0.2	0.2
30	0.0		6.2	9.2	0.2	0.2	0.2	0.0	0.0	0.6	0.0	0.6
31	0.0		0.2		0.0		0.0	0.0		27.2		0.0
Total	27.8	257.2	55.6	49.2	67.6	18.8	150.4	146.0	21.4	100.4	70.4	66.0

Table A3-2
Monthly Rainfall Records – New Berrima Clay/Shale Quarry Weather Station

Year / Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2016	-	-	-	-	-	-	-	-	-	35.0	33.0	49.8	-
2017	34.8	80.8	180.6	24.2	25.0	19.4	19.4	17.6	2.0	39.6	88.4	33.6	565.4
2018	55.2	95.6	20.0	21.2	15.8	52.2	4.4	17.0	10.2	57.8	119.0	71.0	539.4
2019	54.6	7.0	115.4	9.0	13.6	61.4	9.6	21.0	43.0	18.8	10.4	1.2	365.0
2020	27.8	257.2	55.6	49.2	67.6	18.8	150.4	146.0	21.4	100.4	70.4	66.0	1030.8
Minimum	27.8	7.0	20.0	9.0	13.6	18.8	4.4	17.0	2.0	18.8	10.4	1.2	365.0
Average	43.1	110.2	92.9	25.9	30.5	38.0	46.0	50.4	19.2	54.2	72.1	43.0	625.2
Maximum	55.2	95.6	180.6	24.2	25.0	61.4	19.4	21.0	43.0	100.4	119.0	71.0	1030.8

* Weather station commissioned 18/09/2016



This page has intentionally been left blank



Appendix 4

Ecological Compliance Report for Intersection Upgrade

(Total No. of pages including blank pages = 16)



This page has intentionally been left blank



Wingecarribee Shire Council
PO Box 141
Moss Vale NSW 2577

Via -mail@wsc.nsw.gov.au

CC: Peter Young-Whitford (Austral Bricks)

December 23, 2020

Council reference no. 17/1477

Austral Bricks Quarry Entrance, 154 Berrima Road - compliance reporting

écologique was engaged by Austral Bricks as the Project Ecologist for the above development and submits to Council the following evidence of compliance with consent conditions to end of 2020.

Yours faithfully



Kat Duchatel
BSc. Env. | BAM Accreditation No. BAAS17054



Encl.

- Figure 1. Revegetation area location diagram
- Tables 1 and 2. Summary of consent conditions and status
- Table 3. Planting schedule
- Photographic plates
- Craig Thomas correspondence (South East Local Land Services Biosecurity Officer)



Coordinate System: MGA Zone 56 (GDA 96) | Imagery: Nearmap 5 October 2020

524 Berrima Road, Moss Vale

Figure 1. Revegetation Area

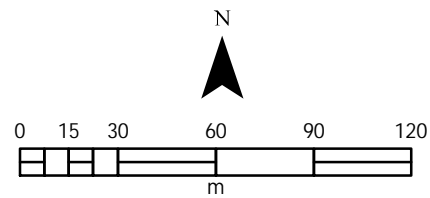
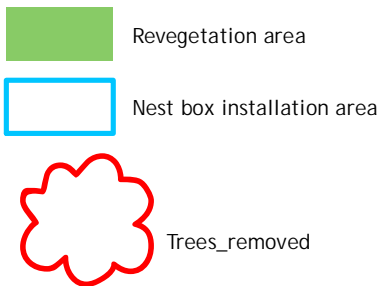


Table 1. Summary of consent conditions

Condition	Status
<p>Vegetation Clearing & Revegetation: All vegetation clearing and revegetation works shall be carried out in accordance with the report titled ‘New Berrima Clay/Shale Quarry, No. 524 Berrima Road, Moss Vale. Revegetation plan for native vegetation to be removed’ prepared by Kevin Mills & Associates (2018) and dated June 2018.</p>	
<p>“1. To offset the loss of EEC trees and vegetation, the applicant shall provide for a biodiversity offset area of a minimum 4,200 m² which comprises species from the Southern Highlands Woodland plant community including a minimum 90 trees. The location of this offset shall preferably be located within the adjoining sports field land (property owners consent required) and parallel to the proposed road widening works so as to avoid, or at least minimise, the loss of connectively the road widening works will create. Alternatively, the offset area could be located on the eastern side of the road within the applicant’s property in a similar parallel alignment.</p>	<p>Offset area identified on eastern side of Berrima Road and on land under the control of Austral (see Figure 1).</p>
<p>2. The plan shall provide a planting schedule which includes species, quantities and pot sizes.</p>	<p>Planting schedule provided to Wariapendi Nursery for supply and installation. Austral Purchase Order : PO 4145203</p>
<p>3. The loss of hollow bearing trees is a Key Threatening Process and compensatory nesting boxes to a ratio of 5 boxes for every hollow lost shall be applied. A conservative estimate of at least 30 nesting boxes of various sizes shall be applied, with their location, and specification indicated on the plan. An experienced ecologist should be engaged to specify suitable locations, sizes, heights from the ground and these shall occur on existing retained vegetation within 500 m of the subject works.”</p>	<p>Location for nest box installation identified (see Figure 1) Order for 30 nest boxes placed for installation in early 2021.</p>
<p>Protection of Fauna: Prior to the removal of any Hollow Bearing Tree (HBT), the following matters MUST be addressed to ensure that the removal is undertaken in an environmentally responsible manner:</p>	
<p>a. Ensure that a suitably qualified and licensed Ecologist (who is vaccinated for Australian Bat Lyssavirus) is engaged to supervise the removal of any HBTs in order to rescue or relocate any fauna displaced during the clearing process</p>	<p>Completed compliantly. CV and vaccination certification available on request.</p>
<p>b. Check for fauna in the zone of disturbance before clearing and scare off or remove them before commencing clearing works</p>	<p>Completed compliantly. Monitoring undertaken at dusk / evening prior to clearing commencement. Southern Highlands Veterinary Centre consulted and agreed to receive any injured fauna.</p>

Condition		Status
c. Remove any non-HBTs prior to the removal of HBTs		Completely compliantly. No fauna found.
d. Leave HBTs standing for at least one night after other non-HBT trees are clearing to allow any fauna the opportunity to remove themselves after site disturbance		
e. After clearing, re-check the site to ensure no fauna have become trapped or injured during clearing operations. Any fauna found should be moved to adjacent habitat.		
f. Before felling the HBTs, tap trunk using heavy machinery to scare fauna from the hollows. Repeat several times. The aim is to 'substantially shake the tree and encourage fauna to exit		
g. Carefully fell the HBT by gently lowering the tree to the ground using an excavator arm fitted with grapples. Alternatively arrange for qualified tree surgeons to fell the HBT using chainsaws and pulleys		
h. After felling the tree, thoroughly check the tree for fauna in the case that any have become trapped or injured during clearing operations. Any fauna should be safely moved into adjacent habitat		
i. If taking the tree down in stages, the non-hollow bearing branches should be removed before the hollow bearing branches are removed		Completed compliantly. No adjacent vegetation damaged.
j. Fell trees in the already disturbed areas to avoid damaging adjacent vegetation		
k. Take care when moving equipment near vegetation to be retained		
l. Logs from felled trees should be distributed into areas of vegetation so that they can continue to provide habitat for fauna such as terrestrial reptiles and mammals		Completed compliantly. Refer Figure 1 and photographic plates.
m. Relocate woody debris where they will not contribute a fire hazard		
n. Provide written evidence to Council in order to document that a suitably qualified person was engaged for the specific tasks listed above		Purpose of the letter report.
1. Final Ecology Report	After completion of works, a final certification report providing documentary evidence of compliance for each stage of the development with all conditions of consent relating to ecology/trees/fauna management/nesting boxes must be prepared by the engaged Consulting Ecologist and forwarded to Council for review.	To be done on completion of works.

Table 2. Summary of Kevin Mills & Associates (2018) revegetation plan requirements

Reference	Requirement	Status
Council requirements (Page 1)		
Item 1.	To offset the loss of EEC trees and vegetation, the applicant shall provide for a biodiversity offset area of a minimum 4,200 m ² which comprises species from the Southern Highlands Woodland plant community including a minimum 90 trees. The location of this offset shall preferably be located within the adjoining sports field land (property owners consent required) and parallel to the proposed road widening works so as to avoid, or at least minimise, the loss of connectivity the road widening works will create. Alternatively, the offset area could be located on the eastern side of the road within the applicant’s property in a similar parallel alignment.	Revegetation site identified on eastern side of Berrima Road on land under the control of Austral (see Figure 1 and photographic plates).
Item 2.	The plan shall provide a planting schedule which includes species, quantities and pot sizes.	Planting schedule provided to Wariapendi Nursery for supply and installation (see Table 3). Austral Purchase Order: PO 4145203
Item 3.	The loss of hollow bearing trees is a Key Threatening Process and compensatory nesting boxes to a ratio of 5 boxes for every hollow lost shall be applied. A conservative estimate of at least 30 nesting boxes of various sizes shall be applied, with their location, and specification indicated on the plan. An experienced ecologist should be engaged to specify suitable locations, sizes, heights from the ground and these shall occur on existing retained vegetation within 500 m of the subject works.	Location for nest box installation identified (see Figure 1) Order for 30 nest boxes placed for installation in early 2021.
3.3 Salvaged Material (page 6)		
•	The logs containing hollows taken from the roadside clearing of trees shall be spread on the revegetation area to enhance habitat for animals. The placement of these logs shall be determined by the contractor undertaking the plantings and take into account the need for safe and easy foot access to the site.	Completed. Refer Figure 1 and photographic plates .
•	Prior to clearing the roadside, the contactor shall gather as much seed-bearing material as possible from the vegetation to be cleared and spread is randomly on the revegetation area.	Completed as far as practical. Most seeds not yet ready for collection. A modest amount of <i>Themeda australis</i> seeds were collected and spread in transplant area

Reference	Requirement	Status
•	The contractor should identify any plants in the road reserve that are to be cleared and dig and replant any useful plant material; e.g. <i>Dianella revoluta</i> may be suitable for transplanting.	Completed as far as practical. <i>Dianella revoluta</i> , <i>Lomandra multiflora</i> and <i>Xanthorrhoea concava</i> transplanted. See photographic plates.
Table 4. Summary of management actions (page 10)		
1. Site preparation	1.1. Identification of the area 1.1.1. Revegetation site to be identified on ground with suitable posts 1.1.2. Signs to be prepared and installed along boundary	COMPLETED (see photographic plates)
	1.2. Removal of weeds 1.2.1. Weeds to be removed if present on the site or adjacent on the subject property	COMPLETED
	1.3. Remove foreign material: pile of waste concrete to be removed	COMPLETED
	1.4. Trim branches of pines: the long branches of the pines overhanging the site on the western boundary to be trimmed	AMENDED (see overpage)
	1.5. Rabbit control: carry out rabbit control to avoid impacts on plantings, initially just before planting then as required, by contractor.	AMENDED (see overpage)
2. Planting	2.1. Undertake plantings 2.1.1. Trees to be planted in a random pattern across the site 2.1.2. Best practice planting methods to be used	Plantings to be completed within two months of roadworks commencing. Wariapendi engaged to complete. Note that two months of tree clearance falls within the holiday closure periods. Anticipate planting to commence mid-January 2021.
3. Maintenance & monitoring	3.1. Maintenance 3.1.1. Check condition of plants and site generally 3.1.2. Watering to be undertaken once per week unless rainfall occurs 3.1.3. Dead plants to be replaced if required to maintain a minimum of 90 trees	Responsibility of contractor. Wariapendi engaged to complete.
	3.2. Monitoring 6.2.1 the site is to be monitored 6 monthly for 3 years, after each site visit a report to be prepared and sent to Council	

Amendments

1. Site preparation

1.4: Trim branches of pines: the long branches of the pines overhanging the site on the western boundary to be trimmed.

This condition is no longer required.

The need to trim branches of pines aimed to reduce shading that may impact on the revegetation area. The revegetation area has been located to align 35m further west from these pine trees and therefore no longer will impact on revegetation area. See **photographic plates and enclosed Figure 1**.

1.5: Rabbit control: carry out rabbit control to avoid impacts on plantings, initially just before planting then as required, by contractor.

This condition is not supported.

Rabbits are abundant and widespread within the locality. In the absence of a coordinated control program of a wider area, a localised control program is unlikely to be successful. Poisoning of rabbits is also not supported due to the potential for their predators to also be poisoned.

Tree guards (corflute with hardwood stakes) are being installed around all plantings to prevent rabbit impacts.

Further the South East Local Land Services (LLS) has advised that rabbit control has become very difficult and they have in fact halted all control programs until the beginning of February 2021 (refer **enclosed LLS correspondence**).

Table 3. Planting Schedule

Tree species and indicative quantities based on Kevin Mills & Associates (2018) as follows:

Species name	Common name	Qty	Planting density
Trees¹			
<i>Allocasuarina littoralis</i>	Black Sheoak	10	Scattered randomly average one tree every 40m ²
<i>Eucalyptus dives</i>	Broad-leaved Peppermint	20	
<i>Eucalyptus globoidea</i>	White Stringybark	20	
<i>Eucalyptus mannifera</i>	Brittle Gum	20	
<i>Eucalyptus pauciflora</i>	Snow Gum	10	
<i>Eucalyptus radiata</i>	Narrow-leaved Peppermint	20	
Sub-total plants (minimum hiko size)		100	
Groundlayer			
<i>Echinopogon caespitosus</i>	Hedgehog grass	60	42 patches of 10 plants every 100m ²
<i>Poa labillardieri</i>	Tussock grass	100	
<i>Rytidosperma racemosum</i>	Wallaby grass	60	
<i>Themeda australis</i>	Kangaroo grass	100	
<i>Dianella revoluta</i>	Flax lily	50	
<i>Lomandra multiflora</i>	Many-flowered mat-rush	50	
Sub-total plants (minimum hiko size)		420	
Total plants (minimum hiko size)		520	

¹ Able to be amended as to availability in size, quantities or replacement species from the locality

Photographic plates



Plate 1. Tree hollows in revegetation area



Plate 2. Tree hollows in revegetation area



Plate 3. Tree hollows in revegetation area



Plate 4. Tree hollows in revegetation area



Plate 5. Tree hollows in revegetation area



Plate 6. Tree hollows in revegetation area



Plate 7. Trees hollows adjacent where cleared



Plate 8. Trees hollows adjacent where cleared



Plate 9. Transplantings



Plate 10. Transplantings



Plate 11. Transplantings



Plate 12. Transplantings



Plate 13. Above (left): Pine trees in background of revegetation area and (right): pine trees along Berrima Road showing area of pasture distancing shading from revegetation area.



Plate 15. Weed control and mulching completed in revegetation area

Plate 16. Signage

From: [Peter Young-Whitford](mailto:Peter.Young-Whitford@ecologique.com.au)
To: kat@ecologique.com.au
Cc: [Cassandra Steppacher](#); [Matthew Wall](#)
Subject: Fwd: Austral Bricks - New Berrima Quarry Entrance - Rabbit Control
Date: Tuesday, 22 December 2020 4:48:29 PM

Hi Kat,

Reply from Craig Thomas re rabbit control.

Regards,

Peter Young-Whitford
Mining & Raw Materials Manager

Austral Bricks
mob. +61 412611714
email. peter.youngwhitford@australbricks.com.au
web. www.australbricks.com.au

Begin forwarded message:

From: Craig Thomas <craig.thomas@lls.nsw.gov.au>
Date: 22 December 2020 at 11:17:26 am AEDT
To: Peter Young-Whitford <Peter.YoungWhitford@australbricks.com.au>
Subject: RE: Austral Bricks - New Berrima Quarry Entrance - Rabbit Control

Hi Peter,

As discussed, Rabbit control is difficult this year with the season we are facing. Local Land Services have in fact halted all Rabbit control programs until the beginning of February 2021 due to the following factors;

- Excess alternative feed due to excellent growing conditions in Spring and continued rainfall during December.
- Rabbit free-feeding with view to baiting has been unsuccessful across many parts of the South East Local Land Service region- Both carrot/grain. (Grass uptake when they consume baited feed reverses poison effects and will make them extremely hard to bait in future).
- The lifecycle of the rabbit has allowed multiple litters this year and with young rabbits being present, it is not considered best practice to gain any control until they are mid-sized.

To alleviate your immediate concerns, you could start a free feeding campaign with the possibility of using a manufactured grain product (Rabbait, Bunnybait[®]), available from rural reseller. **LLS will not be issuing any fresh carrot free feed/bait until the 1st week in February 2021.**

To do this;

- Best done in the late afternoon to deter bird take up.
- Scratch a line in the ground with hoe/mattock- This acts as an attractant to the rabbits- fresh dirt.
- Sprinkle a known quantity of un-poisoned feed oats on the track made (Available from any rural reseller)- Suggest 5kg each free feed for your site.
- Monitor uptake the next morning- gauge the amount taken and look for fresh rabbit signs- dung, scratchings. If Rabbits are taking grain, continue a further 2 x times (Adjust quantity on findings and a minimum 3 x Free-feed before baiting- as per legislation). Also look for non-target uptake- Birds, domestic animals etc.
- Feed out prepared grain ((Rabbait, Bunnybait ®)-Pindone active constituent) at 70% of original free feed amount- 3 x times to take affect (Can take up to 21 days for death in rabbit population to occur).
- Any baited feed the following morning must be picked up and disposed by burial.

After initial free feeding and there is no uptake- Wait for better conditions in late Summer/early Autumn. I can then help you with Carrot based feed that is seen to have better results when the grass senescences.

As discussed, the site at New Berrima would lend itself to a possible Calicivirus release to provide a possible bio-control solution for a longer term option. This is best released in late Summer by free feeding carrot and the virus applied to 1 x 'baited' feed. To do this I would need 2-3 dead rabbits in January for testing at the EMAI laboratory. (Shoot or trap and freeze in plastic bag). I can pick these up in the New Year to start this process if you decide to go ahead. I would still suggest an initial poison baiting at the site to reduce the immediate numbers.

Thanks for the enquiry and look forward to hearing from you. Any questions, do not hesitate to contact me, additionally a site visit and basic training for end users is available if needed.

Regards,

Craig Thomas | Biosecurity Officer

South East Local Land Services

159 Auburn Street (PO BOX 67)| Goulburn | NSW 2580

P: 02 4824 1908

M: 0439 836 999

E: craig.thomas@lls.nsw.gov.au

W: southeast.lls.nsw.gov.au

From: Peter Young-Whitford <Peter.YoungWhitford@australbricks.com.au>
Sent: Monday, 21 December 2020 10:11 PM
To: Craig Thomas <craig.thomas@lls.nsw.gov.au>
Subject: Austral Bricks - New Berrima Quarry Entrance - Rabbit Control

Hello Craig,

Thanks for your time today.

As discussed, we have a Section 138 Certificate for the construction of the New Entrance into the New Berrima Quarry which was issued by the Wingecarribee Shire Council.

The Section 138 requires us to comply with conditions proposed in an Ecology Report which was written by Kevin Mills (please see below and the attached)

Table 4

Summary of Management Actions Issue	Management Action	Timing and Responsibility
1. Site Preparation		
1.1 Identification of the area	1.1.1 Site of revegetation to be identified on the ground with suitable posts. 1.1.2 Signs to be prepared and installed along boundary.	Delineation, establishment and signage by Company to be completed prior to start of road works. Note that extent of earthworks to be excluded.
1.2 Removal of weeds	1.2.1 Weeds to be removed if present on the site or adjacent on the subject property.	Work to be completed by contractor within one month of roadworks commencing.
1.3 Remove foreign material	Pile of waste concrete to be removed.	Work to be completed within one month of roadworks commencing.
1.4 Trim branches of pines	The long branches of the pines overhanging the site on the western boundary to be trimmed.	Work to be completed by contractor within one month of roadworks commencing.
1.5 Rabbit control	Carry out Rabbit control to avoid impacts on plantings.	Initially just before plantings then as required, by contractor.

We are required to control the Rabbit population as per Table 4 (1.5) which we are finding extremely difficult. The rains and growing conditions have meant that food is plentiful and the Rabbit population has exploded. We have poisoned the 4,200m² area that the 100 trees are to be planted in and the grass is now dead and the area is still populated with rabbits.

Can you please advise us on what is the best way forward to control the rabbits, as we believe that we have little chance of success.

Appreciated your help.

Regards,

Peter Young-Whitford
Raw Materials & Mining Manager
Direct 02 4861 1333