



Year Ending
30th June
2022

Annual Review
for
Bringelly Clay / Shale Mine and
Brickworks
ML 1731 & SSD5684



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Bringelly Clay Mine**Annual Review and Annual Rehabilitation Review**

Name of Mine	Bringelly Clay / Shale Mine
MOP Commencement Date	27 th April 2016
MOP Completion Date	31 st March 2023
Mining Authorisations	ML1731
Mine Lease Grant Date	9 th March 2016
Annual Report Commencement Date	1 st July 2021
Annual Report Completion Date	30 th June 2022
Name of Authorisation Holder	PGH Bricks & Pavers Pty Ltd
Name of Mine Operator (s)	PGH Bricks & Pavers Pty Ltd
Name and Contact Details of the Mine Manager	Mr Joe Gauci, (02) 9826 3964 jgauci@csr.com.au
Name and Contact Details of the Environmental Representative	Sara Regio Candeias, 0403 874 089 sregiocandei@csr.com.au
Name of the Representative of the Authorisation Holder	Mr Joe Gauci, (02) 9826 3964 jgauci@csr.com.au

Revision Table

Date	Version	Author	Reviewed	Approved
15/09/2022	F0	LT	TO/JG/SC/JA	

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1 Executive Summary

This Annual Review (AR) has been prepared by VGT Environmental Compliance Solutions Pty Ltd (VGT) on behalf of PGH Bricks & Pavers Pty Ltd for the Bringelly Clay / Shale Mine, SSD 5684 and ML1731. This report describes the mining and rehabilitation activities as well as the environmental monitoring results for the reporting period from 1st July 2021 to 30 June 2022. Compliance with the conditions of consent SSD 5684 Mod 1, are considered for the same period.

Extraction occurred in the report period on the same benches mined in previous years. Brickmaking has continued at a similar rate to previous years. Environmental monitoring has continued in accordance with approved management plans.

There are no non-compliances in the period 1st July 2021 to 30th June 2022, with any of the conditions in the SSD 5684 Mod 1 consent, Mining Lease 1731, Environment Protection Licence 1808, or the water licences (numbers given in [Table 10](#)).

Actions outstanding following the Independent Environmental Audit in 2021 are addressed in section [4.2](#). A revised Noise Management Plan and Transport Management Plan have been submitted, approved and implemented. The noise bund is not constructed and is the subject of modification 2.

Actions required by the Resources Regulator as a result of a Targeted Assessment Program (TAP) undertaken in April 2021 are discussed in section [4.3](#). A Rehabilitation Risk Assessment has been updated and is undergoing consultation with site staff. Some soil and material characterisation has been completed. The Final Landform Options Plan has been submitted and approved. Surface Water Management procedures are under review in an attempt to solve tunnel erosion issues on the internal mine faces in the north of the site.

2 Introduction

2.1 PROJECT SITE

PGH Bricks & Pavers Pty Ltd Bringelly Clay / Shale Mine located off Greendale Road, in the Camden Council Government Area, Bringelly NSW. The site is approximately 18km west of Liverpool, as presented in [Figure One](#). The site is constituted of the active mine and brickworks, situated on Lot 100, DP 1203966. The mine and associated brickworks are freehold owned and operated by PGH Bricks & Pavers Pty Ltd.

2.2 BACKGROUND

The report serves to ascertain compliance over the reporting period of 1st July 2020 to 30th June 2021 with the SSD_5684 Mod 1 conditions of consent for the Annual Review (AR) (Schedule 5, Condition 4) reporting requirements to DPE.

The report also serves to review the environmental performance of the site in order to comply with mine lease conditions (Condition 3. (f)). PGH was granted a change in the reporting period for the Annual Rehabilitation Report (ARR) by the Resources Regulator in order to align the report period with the AR in the previous report period, which covered the extended period of 1st January 2020 to 30th June 2021 to assist with report date alignment. This report, covers the financial year from 1st July 2021 to 30th June 2022.

2.3 QUARRY CONTACTS

Table 1. Contact Details

Aspect	Brickworks Manager	Mine Manager
Name	Tony West	Joe Gauci
Company	PGH Bricks & Pavers Pty Ltd	PGH Bricks & Pavers Pty Ltd
Address	Greendale Road Bringelly	59-67 Cecil Road Cecil Park
Mobile	0419 474 953	0417 683 526
Phone	02 9684 8778	02 9826 3964
Email	twest@csr.com.au	jgauci@csr.com.au

3 Statement of Compliance

Table 2. Statement of Compliance

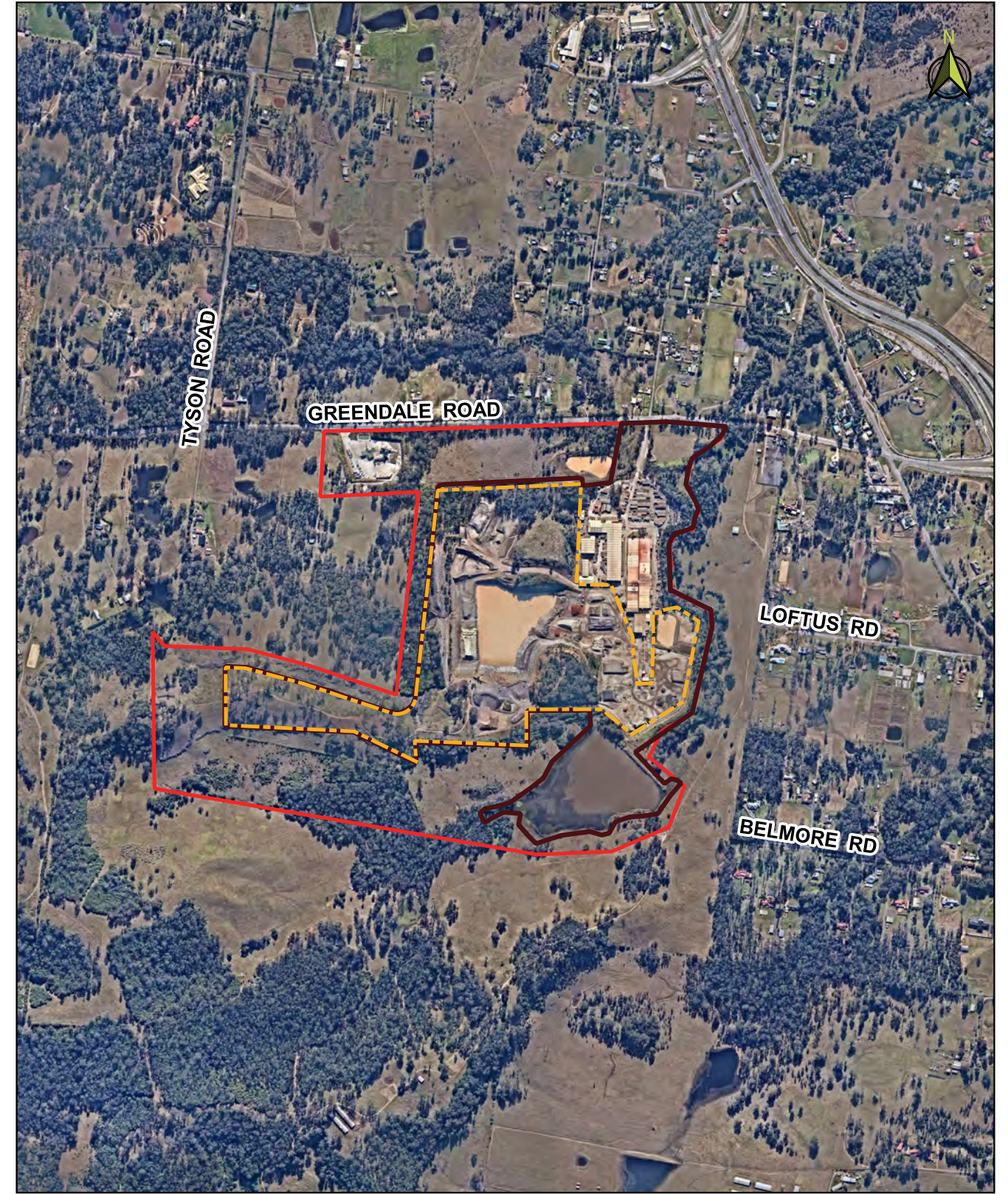
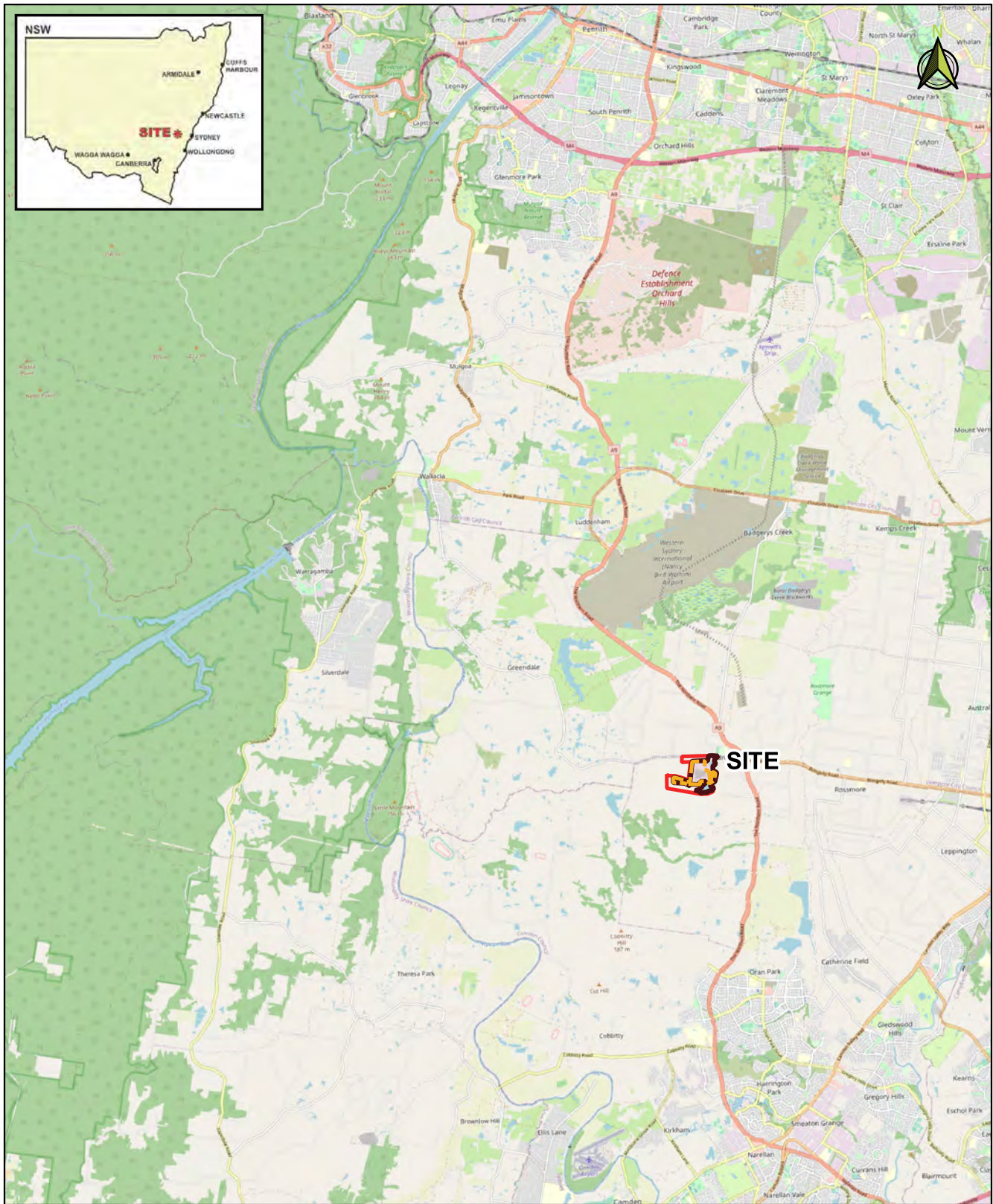
Relevant Approval	All Conditions Compliant?
SSD_5684 Mod 1	Yes
EPL1808	Yes
ML1771	Yes
Water Licences (Table 10)	Yes

A full list of conditions and compliance status is included in [Appendix F](#).

Plan of:	Annual Report & Annual Rehabilitation Report for Bringelly Clay Mine 2022 - Site Location	Location:	Bringelly Clay Mine, Off Greendale Road, Bringelly, NSW	Source:	Google Maps & nearmap - Image Date 15/06/2022 Zone MGA 56	Plan By:	SK/JD
Figure:	ONE	Council:	Camden Council	Survey:	Not Applicable	Project Manager:	LT
Version/Date:	V0 08/08/2022	Tenure:	ML 1731	Projection:	GDA2020/MGA Zone 56 EPSG:7856	Office:	Thornton
Our Ref:	12421_BR_AR_ARR2022_Q001_V0_F1	Client:	PGH Bricks & Pavers Pty Ltd	Contour Interval:	Not Applicable		



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Legend

- Cadastral Boundary
- Project Approval Boundary
- Authority Boundary (ML 1731)

Plan of: Annual Report & Annual Rehabilitation Report for Bringelly Clay Mine 2022 - Current Site Layout

Figure: TWO

Version/Date: V0 08/08/2022

Our Ref: 12421_BR_AR_ARR2022_Q002_V0_F2

Location: Bringelly Clay Mine, off Greendale Road, Bringelly, NSW

Council: Camden Council

Tenure: ML 1731

Client: PGH Bricks & Pavers Pty Ltd

Source: nearmap imagery dated 15/06/2022 GDA2020 MGA Zone 56, NSW Government Spatial Services, July 2019 Survey, Accessed Through ELVIS & Property boundary from NSW Clip & Ship

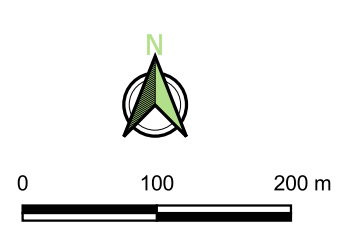
Survey: GDA2020 MGA Zone 56, NSW Government Spatial Services, July 2019 Survey, Accessed Through ELVIS & Property boundary from NSW Clip & Ship

Projection: GDA2020 Geoscience Australia Lambert EPSG:7856

Contour Interval: 1m

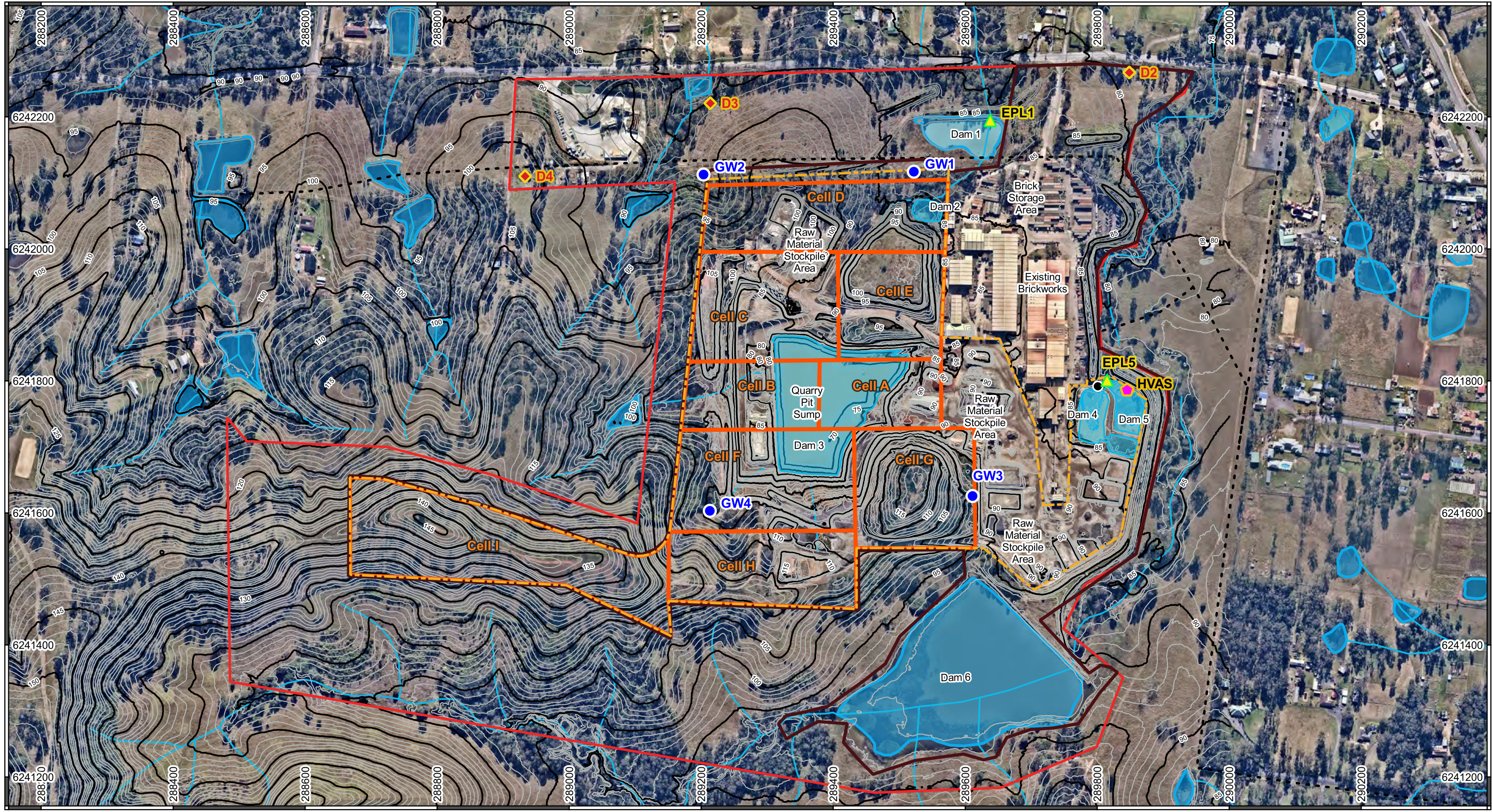
Plan By: SK/JD

Project Manager: LT



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Legend	
Project Approval Boundary	Electricity Transmission Line
Cadastral Boundary	Surface Water Monitoring Location
River/Major Drainage Line	Pump
Groundwater Monitoring Location	High Volume Air Sampler (HVAS)
Dust Gauge Monitoring Location	Section 96 (1A) Mod Consent August 2016
1m Contour	Mining Tenement
5m Contour	Authority Boundary (ML1731)
	3 - Water Management Area
	Area of Disturbance
	Primary Domains (Operational)

4 Actions Required from Past Reports

4.1 ANNUAL REVIEW AND ANNUAL REHABILITATION REVIEW 2021

There were no actions required from the previous Annual Review or Annual Rehabilitation Reviews. The report was submitted before the required date through the Major Projects Portal and to the Resources Regulator via email.

4.2 INDEPENDENT ENVIRONMENTAL AUDIT JANUARY 2021

There are some findings from the Independent Environmental Audit in January 2021 (IEA) which were not completed at the end of the previous Annual Report period.

Table 3. Independent Environmental Audit Jan 2021 Non-Compliances

Audit Table Identifier	Condition	Findings	Progress at 30/6/2021	Progress at 30/6/2022
4 26	C2 S2 Terms of consent C4A S3 Noise – operating conditions	<p>The proposed noise bund along Greendale Road described in the EIS and required under C4A S2 and the noise management plan has not been constructed.</p> <p>The client believed construction of the bund was associated with construction of the new access road required under C14 S3 and production of bricks under the new limits in C6 S2.</p> <p>However, there is no such trigger under C4A S2 and all brick production is occurring under SSD_5684, regardless of new production limits.</p>	<p>The noise bund has not been constructed.</p> <p>There have been no noise monitoring exceedances recorded and no noise complaints received.</p> <p>Noise monitoring to be continued.</p>	<p>The noise bund has not been constructed, and mining has not progressed outside of the original footprint into the extended area covered by the SSD.</p> <p>There have been no noise monitoring exceedances recorded and no noise complaints received.</p> <p>Noise monitoring to be continued.</p> <p>Mod 2 to address required changes.</p>
60	C3 S5 Environmental management – environmental management plans	<p>This condition specifies the requirements for management plans required under the consent. The traffic management plan does not contain contingencies should limits be exceeded and does not contain measures for reporting incidents, non-compliances with the approval. The noise management plan does not contain a contingency plan.</p>	<p>Traffic Management Plan and Noise Management Plan are to be reviewed and submitted to the Secretary for approval.</p>	<p>Revised Traffic Management Plan submitted 11/5/22, approved 11/5/22.</p> <p>Revised Noise Management Plan submitted 13/5/22, approved by DPE 16/5/22.</p> <p>No further actions required</p>

4.3 RESOURCES REGULATOR TARGETED ASSESSMENT PROGRAM

On the 15th April, 2021 a Targeted Assessment Program focussing on final landform establishment was undertaken on the Bringelly site by the Resources Regulator. The recommendations from the site visit are included in [Appendix I](#), and summarised below. Actions undertaken towards these recommendations are provided in sections [4.3.1](#) to [4.3.4](#)

Table 4. Recommendations from Resources Regulator TAP

Observations	Recommendation
<p>Based on discussions held with the mine staff, documents presented and field inspections undertaken as part of the assessment, the following key observations were noted by the Regulator:</p>	
<p>Risk Assessment</p> <p>The mine has not adequately identified the range of risks associated with landform establishment and appropriate controls are not in place to facilitate sustainable rehabilitation outcomes. In particular it was observed that the risk assessment in the MOP did not adequately identify controls for managing low pH materials which may affect the final landuse outcome.</p>	<p>Undertake a revised risk assessment to identify all risk and risk controls (treatments) associated with mine rehabilitation and closure. The risk assessment should include information on how control effectiveness is assessed, and how updates to the risk assessment are undertaken as a result. The risk assessment needs to be specific to actual causes and controls used rather than listing management plans only. The risk assessment should include input from a suitably qualified team of appropriately skilled people representing a cross-section of the workforce and activities undertaken at the mine. It is recommended that a suitably qualified landform design specialist is involved in the next rehabilitation risk assessment review process. Guidance on the range of risks to consider can be found on the Regulator’s website.</p>
<p>Waste material characterisation</p> <p>Whilst no final landform work has yet been conducted, it was unclear how ongoing waste and soil material characterisation is undertaken. Although some previous soil testing data may be available, there does not appear to be a characterisation program in place for waste and soil materials as they become available.</p>	<p>Material characterisation practices should be reviewed to ensure an adequate understanding of the geochemical properties of waste material so that specialist handling and management is implemented at extraction and/or processing. The mine should also undertake regular testing of all waste and soil materials to confirm their geochemical properties. Triggers at which specialist handling and management practices are required, are to be clearly defined. These requirements should be formalised in an appropriate management plan.</p>
<p>Final landform design</p> <p>The Resources Regulator notes that the conceptual final landform outlined in the approved Bringelly Development Consent may not be reflective of a suitable and contemporary final land use outcome for this area. It is also noted that Condition 25 of the Bringelly Development Consent requires the regular revision and submission of a Final Land Use Options Plan (FLUOP) in consultation with the Resources Regulator (formerly DRE).</p>	<p>The Resources Regulator would encourage PGH to engage regularly with DPE and the Regulator during the development of the FLUOP to ensure appropriate options are identified to assist and direct the final rehabilitation effort.</p>

Observations	Recommendation
<p>Inspection comment</p> <p>During the site inspection, two (2) significant tunnel erosion areas were observed on the western side of the pit shell. These areas appear to be the location of concentrated water flow from off-site inflows as well as on-site sources. Whilst it was observed that sediment was being captured in-pit, these erosion areas have the potential to 'cut-back' and de-stabilise the upper pit shell and affect the soil resource in advance of the current mining area.</p>	<p>It is recommended that PGH conduct a review of the surface water management in this area and determine the cause of this ongoing problem. A suitable remedial action plan should be developed in consultation with neighbouring properties to ensure excessive water ponding and/or rapid water movement in this area is reduced, controlled or eliminated.</p>

4.3.1 Rehabilitation Risk Assessment

A Rehabilitation Risk Assessment is under preparation and consultation. A draft document ([Appendix J](#)) has been prepared following the latest guidelines. The document is now with the site for review with a cross-section of the workforce.

4.3.2 Waste Material Characterisation

Soil and clay samples were collected from the Bringelly site and tested for pH and Electrical Conductivity. A summary is given in the table below. The soils that would make up rehabilitation material showed neutral pH and very low conductivity, as so posed no risk to rehabilitation outcomes. The raw materials were mostly alkaline (except in Cell G) in pH and moderate to low in conductivity.

Table 5. Soil Characterisation

Reference	Sample Description	Sample Date	Location	Conductivity (1:5) dS/m	pH (1:5) H ₂ O
11124/4	Cell G Topsoil	17/06/2021	289495E, 6241605N	<0.050	6.3
11124/1	Bringelly Cell F Siderite	17/06/2021		0.12	8.9
11124/2	Bringelly SS Cell F	17/06/2021		0.062	9.3
11124/3	Cell G Clay	17/06/2021	289459E, 6241627N	0.93	5.3
11124/5	Cell G B/S	17/06/2021	289450E, 6241565N	<0.050	6.7
11124/6	Cell H Brown Shale	17/06/2021	289176E, 6241499N	0.092	9.7
11124/7	Blue Shale	17/06/2021	289527E, 6241730N	<0.050	9.1

4.3.3 Final Landform Design

The Final Landuse Options Plan was submitted to the DPE on 23/2/22 and approved on 3/6/22. As was noted in the approval letter, the Plan was prepared in consultation with Camden Council and the NSW Resources Regulator.

A Rehabilitation Plan (Section 8) and Biodiversity Management Plan (Section 7.6) have been prepared in accordance with the Consent conditions and submitted to the DPE for approval.

New standard conditions for large mines with an Environment Protection Licence come into effect on Saturday 2 July, 2022. The Bringelly site operators are in the process of undertaking a gap analysis between the requirements of the new Mining Lease conditions and the Consent conditions with regard to the Rehabilitation Management Plan and supporting documents. As the new standard conditions require a Rehabilitation Management Plan in the “Form and Way” and the consent conditions require a stand alone document covering several different clauses and conditions, there is some difficulty in combining requirements whilst minimising changes requiring further department approval.

4.3.4 Surface Water Management

The tunnel erosion observed during the site inspection is caused by water entering from off site at two places one of which is through the Biodiversity Offset management zone. For this reason, landform changes in that area cannot be made to the area until the Biodiversity Management Plan is resolved and approved. The washout in the south west corner of the active pit was completely repaired in February 2022.

An accurate survey of the land contours in the north of the site has been undertaken to enable a water management plan to be prepared and engineered once a solution to the Biodiversity Offset area is found.

5 Approvals

5.1 LOCAL COUNCIL

Development approval for the site authorised by Camden Council in 1979 and modified in 1991 was surrendered on 24th February 2020. Camden Council continues to be consulted regarding road maintenance contributions, traffic and transport management, biodiversity, rehabilitation and final landform, waste and sewerage management, and is represented on the Community Consultation Committee. Liverpool Council is also consulted regarding traffic and transport management.

5.2 DEPARTMENT OF PLANNING AND ENVIRONMENT (DPE)

5.2.1 Development Approvals

The consolidated State Significant approval conditions are included in [Appendix A](#). Development approvals modifications are summarised below.

Table 6. Development Approvals

No.	Date Approved	Expires	Notes
SSD_5684	3/03/2015	01/03/2045	Extraction limit: 200,000 Tpa clay/shale Production limit: 263,500 Tonnes bricks pa Receival limit: 96,000 Tonnes raw materials for brickmaking per annum Depth restriction: RL46 m AHD
SSD_5684 Mod 1	Submitted 05/08/2016	01/03/2045	Receival Limit increased to 321,000 tonnes raw materials for brickmaking per annum Inclusion of noise bund construction
SSD_5684 Mod 2	Not yet approved		Extraction increased to 350,000 Tpa clay/shale Production limit increased to 330,000 Tpa Receival limit increased to 350,000 Tpa Laden trucks leaving site increased to 200 per day Relocation of biodiversity offset area

This report is to comply with Schedule 5, Condition 4 of the SSD_5684 Mod 1 Approval as reproduced in the table below.

Table 7. Annual Review Reporting Conditions

Element of Condition	Where Addressed in this Report
<p>Annual Review</p> <p>By the end of September each year, the Applicant must submit a report to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the development (including rehabilitation) that was carried out in the previous financial year, and the development that is proposed to be carried out over the current financial year;</p>	<p>Section 6, Section 8</p>
<p>(b) include a comprehensive review of the monitoring results and complaints records of the development over the previous financial year, which includes a comparison of these results against:</p> <ul style="list-style-type: none"> <input type="checkbox"/> the relevant statutory requirements, limits or performance measures/criteria; <input type="checkbox"/> the monitoring results of previous years; and <input type="checkbox"/> the relevant predictions in the documents in condition 2(a) of Schedule 2; 	<p>Section 7</p>
<p>(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</p>	<p>Section 3 and Section 7</p>
<p>(d) identify any trends in the monitoring data over the life of the development;</p>	<p>Section 7</p>
<p>(e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and</p>	<p>Section 7</p>
<p>(f) describe what measures will be implemented over the current financial year to improve the environmental performance of the development.</p>	<p>Section 14</p>

5.2.2 Management Plan Approvals

The following summarises the management plans currently approved and where approval is pending or the plan is yet to be developed or updated.

Table 8. Approved Management Plans

Management Plan	Version	DPE Approval Date
Environmental Management Strategy	V5	12/12/2019
Noise Management Plan	V7	16/5/2022
Air Quality Management Plan	V6	12/12/2019
Transport Management Plan	V4	11/5/2022
Water Management Plan	V4	12/12/2019
Groundwater Management Plan	V5	12/12/2019
Heritage Management Plan	V5	12/12/2019
Biodiversity Management Plan	V1	Not yet approved
Rehabilitation Management Plan	V1	Not yet approved
Final Landuse Options Plan	V1	3/6/2022
Weed Management Plan	V1	22/10/2019
Pollution Incident Response Management Plan		N/A

5.3 RESOURCES REGULATOR

The details for Mining Lease 1731 (Act 1992), held in the name PGH Bricks & Pavers Pty Ltd are shown in [Table 9](#). The conditions are included in [Appendix B](#). The Mining Lease area does not cover the entire site, and boundaries are shown on [Figure Two](#). The Regulator holds a rehabilitation security (\$766,000) for the current footprint of the site which is reviewed and updated as required.

There have been no incidents or non-compliances recorded against the mine lease conditions during the reporting period. The Mine Operation Plan (MOP) required under the conditions is approved and the latest Annual Rehabilitation Report (31/12/2019 to 30/06/2021) was submitted in September 2021. An Annual Exploration Report (AER) was submitted in April 2022. The TAP is discussed in [Section 4.3](#).

New standard conditions for large mines with an Environment Protection Licence come into effect on Saturday 2 July, 2022. The Bringelly site operators are in the process of undertaking a gap analysis between the requirements of the new Mining Lease conditions and the Approval conditions with regard to the Rehabilitation Management Plan and supporting documents. As the new standard conditions require a Rehabilitation Management Plan in the "Form and Way" and the Approval conditions require a stand alone document covering several different clauses and conditions, there is some difficulty in combining requirements whilst minimising changes requiring further department approval.

Table 9. Mining Authorisations

No.	Act	Company	Granted	Expires	Area (Ha)	Minerals
1731	1992	PGH Bricks & Pavers Pty Ltd	9 March 2016	9 March 2037	37.25	Clay/Shale

5.4 ENVIRONMENT PROTECTION AUTHORITY

Environmental Protection Licence Number 1808 has been issued under the Protection of the Environment Operations Act (PoEOA) (included in [Appendix C](#)) and covers works both within the ML boundary and at the Bringelly Brickworks.

The licence requires the monitoring of the discharges to air through kiln stacks and discharges to water. Stack emissions are to be monitored at the kiln for hydrogen fluoride, nitrogen oxide and total solid particles. Water is monitored at Points 1 and Point 5 for oil and grease, pH and turbidity. Only Point 5 requires conductivity to be monitored. These points are shown on [Figure Two](#).

The Pollution Incident Response Management Plan (PIRMP) was not activated during the reporting period. Any relevant monitoring results are made available on the PGH website (<https://www.pghbricks.com.au/-nsw-environmental-reporting>). There were no non-compliant monitoring points during the EPL Annual Return reporting period (year ending May 2022) for the Bringelly Clay Mine, as submitted to the EPA in the Annual Return.

5.5 WATER NSW

Water NSW issued Bore Licence 10BL605770 for four monitoring bores located on the site (see [Appendix D](#)). Results of the groundwater monitoring are discussed in [Section 7.4](#).

There are two unregulated Water Access Licences and one domestic & stock Water Access Licence (see [Appendix E](#)). The use of the water is specific to the work approvals attached to the WALs and benefits Lot 100, DP 1203966. No water has been drawn from the WAL's over the reporting period.

Table 10. Water Approvals and Licences

Approval No	Issue Date	Expiry Date	Work Type	Reference No	WAL No	Units
10BL605770	28/01/2016	Perpetuity	Monitoring Bore	N/A	N/A	N/A
10CA104657	1/7/2011	20/4/2026	Pump	10AL104656	26259	150
10CA104630	1/7/2011	18/6/2025	Pump	10AL104628	26257	6.50
			Dam	10AL104629	25987	152.50

6 Operations to 30th June 2022

6.1 EXPLORATION

An exploration drilling campaign was undertaken in the March 2021 and the results were reported in the Annual Exploration Report for year ending March 2022 through the Regulator portal. A copy of the report is available on request. No exploration activities were undertaken between 1st July 2021 and 30th June 2022.

6.2 CONSTRUCTION

No construction was undertaken during the reporting period.

6.3 MINING OPERATIONS

24,300 tonnes of blue shale was mined during the report period from the north of the western bench (see [Figure Three](#)). Extraction will continue within the existing footprint until approval can be obtained from DPE to extend the area of disturbance. Previously imported clay and shale was stockpiled onto the mining bench in the west. Approximately 176,750 tonnes of raw material for brickmaking has been imported to the site during the reporting period.

The Mine Lease boundary has been surveyed and permanent pegs installed. The DA11/1194 limits of extraction have been pegged and each future approved cell is permanently marked prior to extraction moving into that area.

Stockpile material from previous campaigns and imported material are stored in the stockpile area or pit floor or within the raw material stockpile area within the brick plant portion of the site (off the ML). The stockpiles, limited to 5m in height, and hardstand area are dampened via a water cart as required.

Production data has been reported to the Resources Regulator in an online form in accordance with Schedule 2, condition 18 and a copy is included in [Appendix G](#).

6.4 MINERAL PROCESSING

Processing of clay occurs outside of the ML boundary within the brickworks. All raw materials won from mining on the site or imported into the Bringelly brickworks are placed in stockpiles located as shown on [Figure Two](#). The brick plant produced approximately 54,000,000 bricks during the reporting period.

Table 11. Production During the Report Period

Item	Period	Actual	Limit
Extract clay/shale	1/7/2021 to 30/6/2022	24,300 T	200,000 T
Produce Bricks	1/7/2021 to 30/6/2022	178,042 T	263,500 T
Receive raw brick making materials	1/7/2021 to 30/6/2022	161,230 T	321,000 T

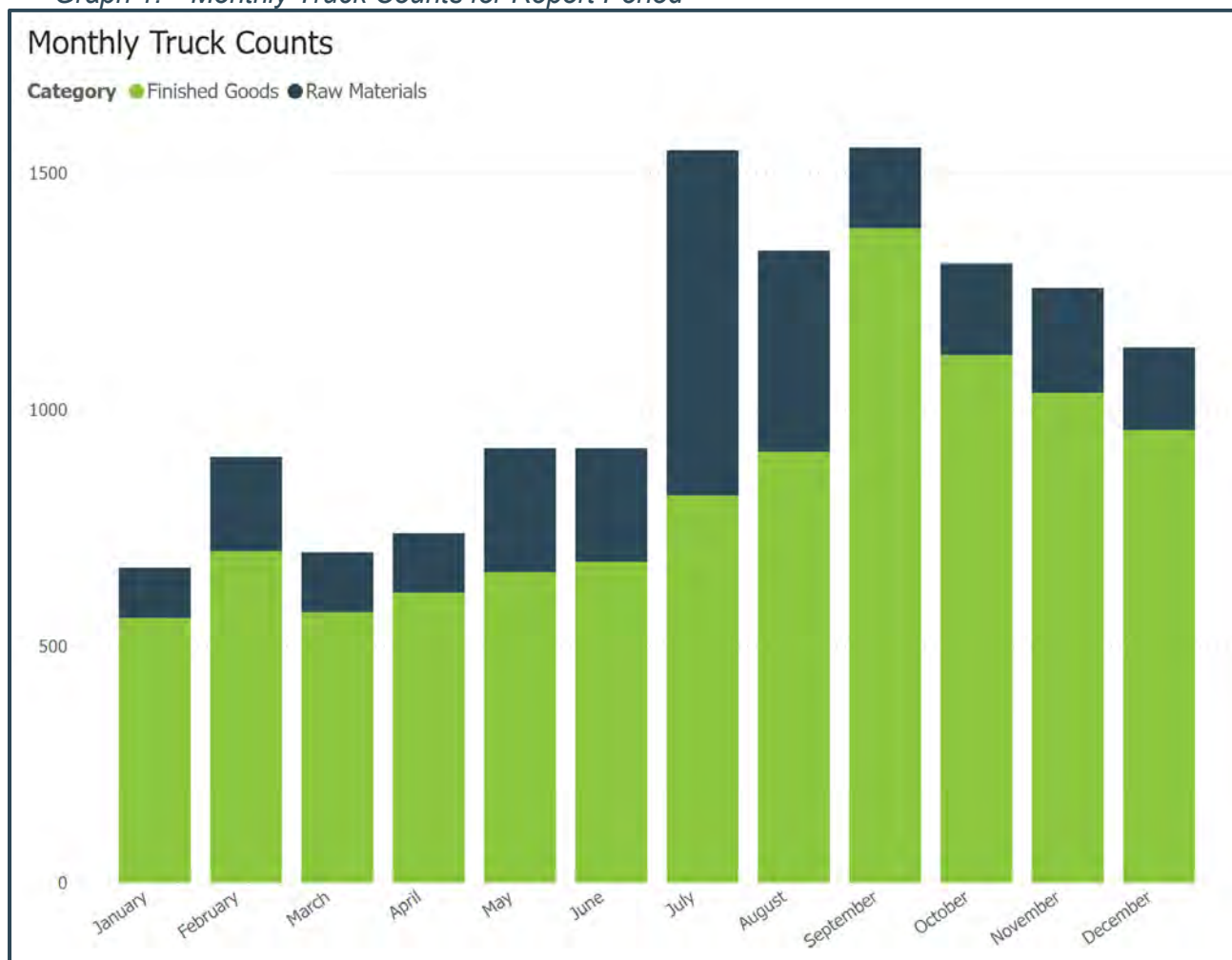
6.5 TRANSPORTATION AND TRAFFIC MANAGEMENT

The Traffic Management Plan was amended this report period and was approved on 11/5/2022. The Drivers Code of Conduct required by the Plan is included in [Appendix H](#).

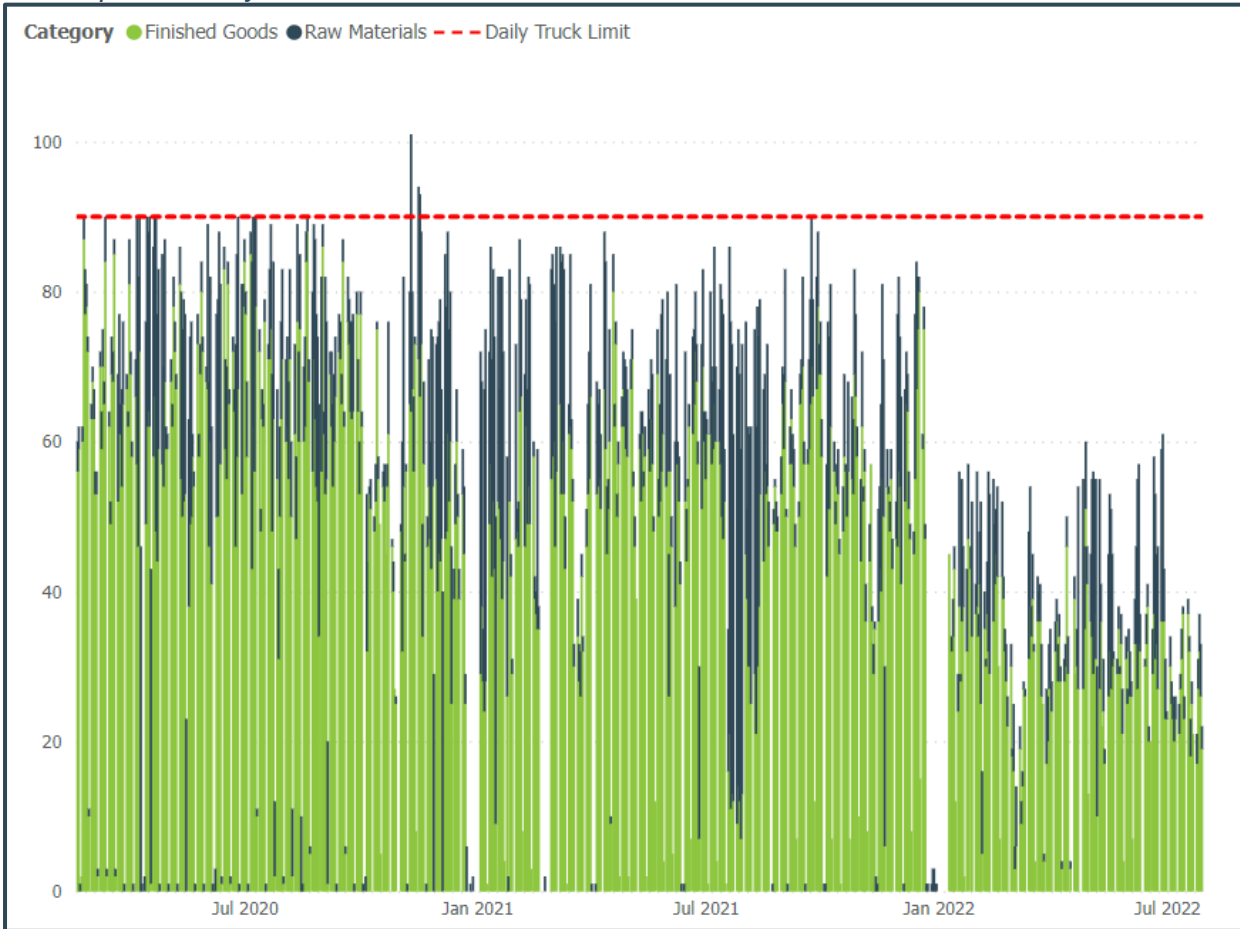
Table 12. Transportation During the Report Period

Item	Period	Actual	Limit
Transport Bricks	1/7/21 to 30/6/2022	168,000 T	263,500 T
Receive Trucks	Max per day during year	90 on 23/9/21	90 trucks per day
Receive Trucks	Max per hour during year	18 on 22/9/21, 9/6/22 & 22/6/22 at 9am & 11am	18 trucks per hour
Dispatch Trucks	Max per day during year	90	90 trucks per day
Dispatch Trucks	Max per hour during year	18	18 trucks per hour

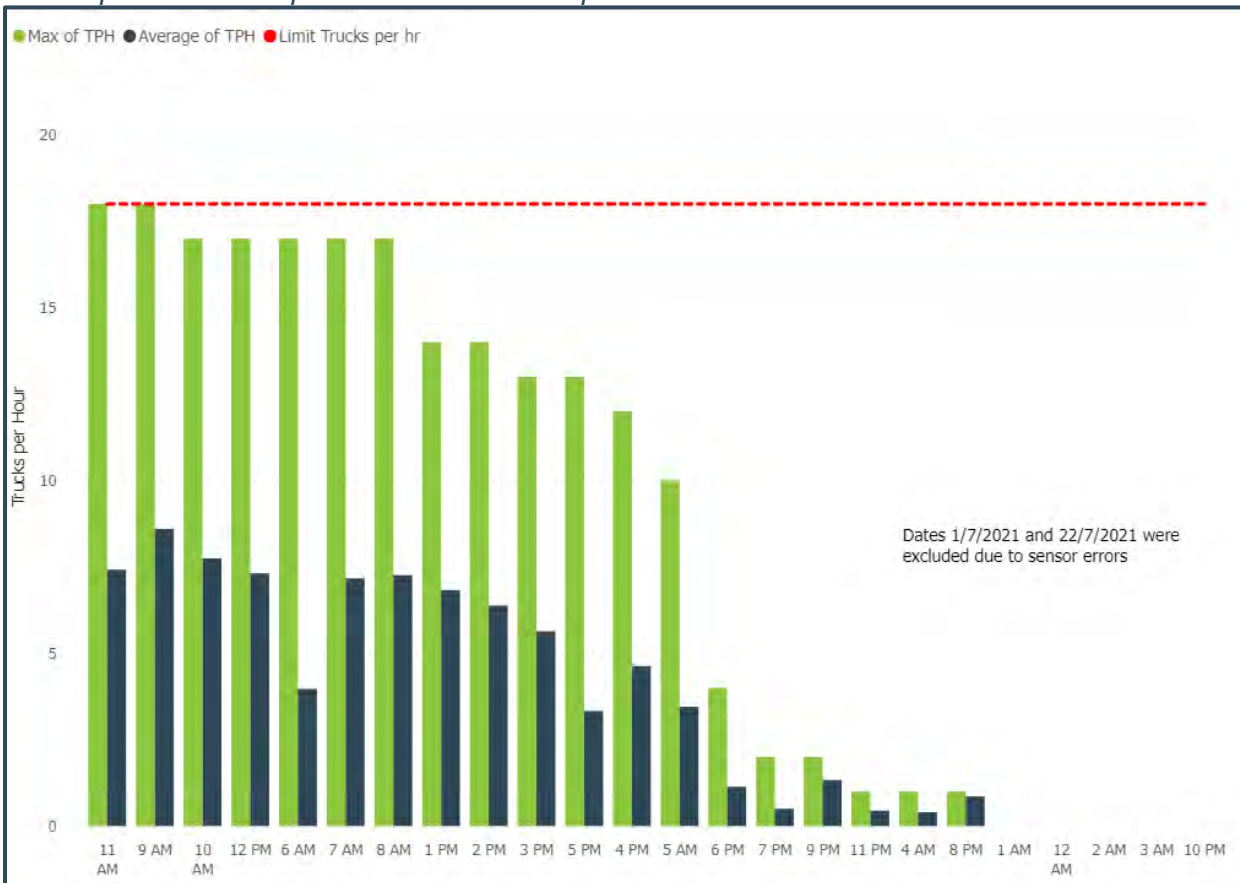
Graph 1. Monthly Truck Counts for Report Period



Graph 2. Daily Truck Counts Trends



Graph 3. Trucks per Hour Trends in Report Period



Plan of: Annual Report & Annual Rehabilitation Report for Bringelly Clay Mine 2022 - Site Operations During Report Period

Figure: THREE

Version/Date: V0 08/08/2022

Our Ref: 12421_BR_AR_ARR2022_Q003_V0_F3

Location: Bringelly Clay Mine, off Greendale Road, Bringelly, NSW

Council: Camden Council

Tenure: ML 1731

Client: PGH Bricks & Pavers Pty Ltd

Source: nearmap imagery dated 15/06/2022 GDA2020 MGA Zone 56, NSW Government Spatial Services, July 2019 Survey, Accessed Through ELVIS & Property boundary from NSW Clip & Ship

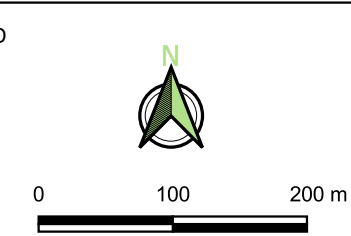
Survey: GDA2020 MGA Zone 56, NSW Government Spatial Services, July 2019 Survey, Accessed Through ELVIS & Property boundary from NSW Clip & Ship

Projection: GDA2020 Geoscience Australia Lambert EPSG:7856

Contour Interval: 1m

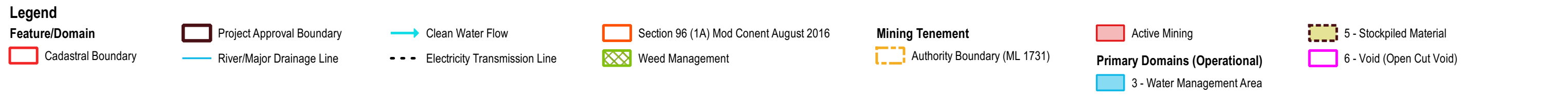
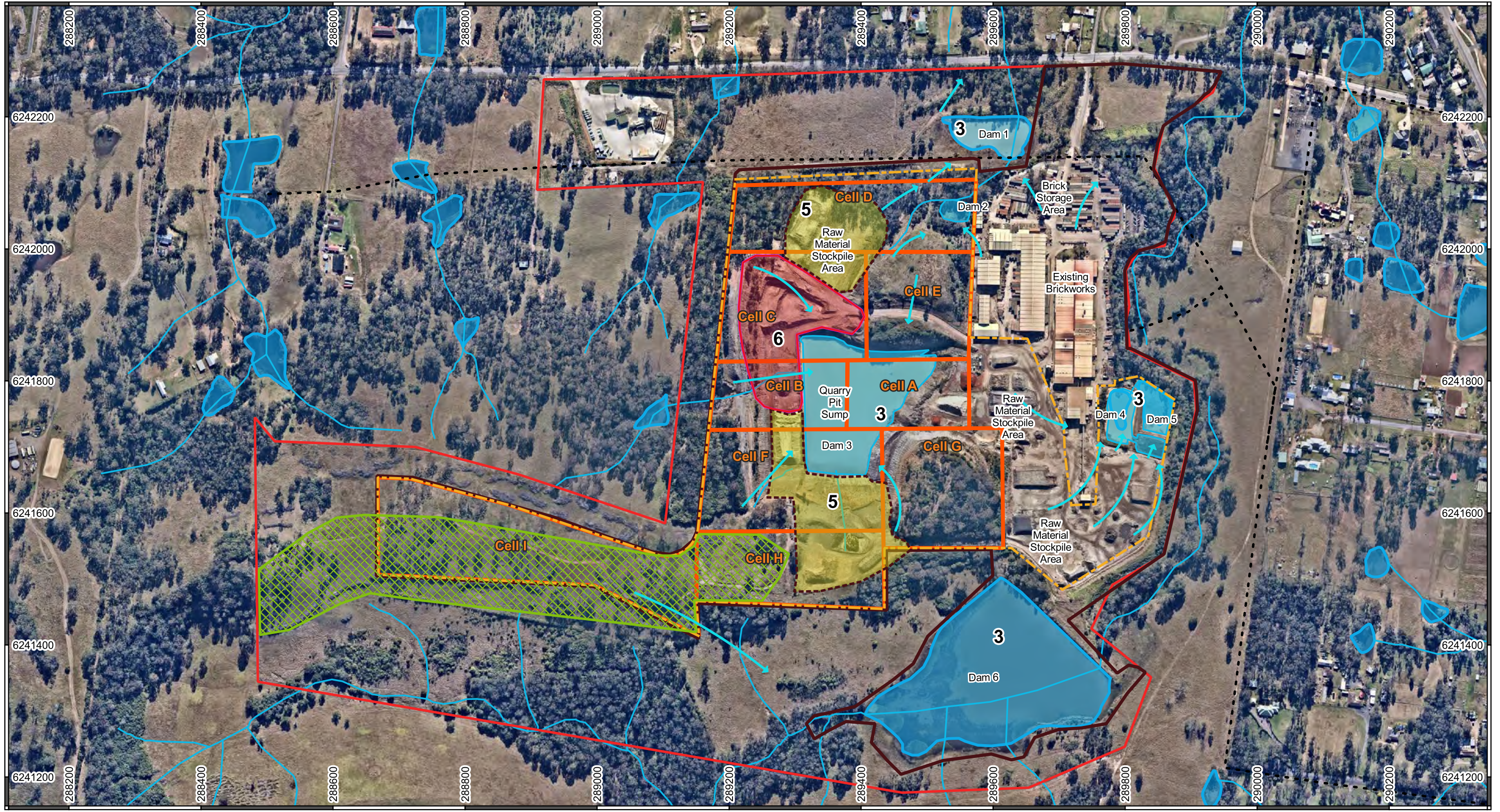
Plan By: SK/JD

Project Manager: LT



vgt environmental compliance solutions and laboratories

This figure may be based on third party data which has not been verified by vgt and may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and vgt does not warrant its accuracy.



6.6 CONSTRUCTION WASTE

No construction was undertaken during the AR reporting period.

No changes to the waste management system have occurred during the reporting period.

6.7 OPERATIONAL WASTE

Operational wastes that may be produced on site include cardboard, timber, recycling of metals and oil, brickmaking by-products such as waste bricks. Metal is taken by contractor for recycling; cardboard is stored in two bins and taken from site once week; general waste is stored in six skip bins and taken off-site once a week. In addition, once every 3 months an extra bin is ordered to take extraordinary waste (for example pallets). Oil waste is taken by a contractor and septic waste is taken twice a week by a separate contractor.

Full and broken waste fired bricks are transported offsite to other plants which utilise fired brick in their processes (pers comm. PGH Bricks). Green waste bricks are recycled through the factory.

6.8 DECOMMISSIONING AND DEMOLITION ACTIVITIES

No decommissioning or demolition activities were undertaken during the reporting period.

6.9 TEMPORARY STABILISATION

The washout in the south west corner of the active pit was completely repaired in February 2022. To assist in stability and safety, layered stockpiles are kept to a height limit of 4.5 metres.

6.10 WEED MANAGEMENT

6.10.1 Requirements

PGH Bricks & Pavers Pty Ltd received a Notice from the then NSW Department of Planning & Environment – Resources Regulator dated 1st May 2019. This notice required the preparation of a Weeds Management Plan (WMP) and a Sediment and Erosion Control Plan (SECP) and reporting on the progress of the weed eradication program in the ARR.

Photoplate 1. Notice from Resources Regulator

DIRECTION

In accordance with section 240(1)(c) and Section 240(2A) of the *Mining Act 1992* (Mining Act), I, Greg Kininmonth, Manager Environmental Operations (Southern), an inspector duly appointed under Section 361 of the Mining Act, direct PGH Bricks and Pavers Pty Limited ("you") (ACN: 68168794821) to take the following steps to address the risk of there being an adverse impact on the environment caused by activities carried out under, or purportedly carried out at Bringelly Clay Mine (Mining Lease 1731). These risks are identified in the "background" section of this Direction. The measure(s) referred to below must be carried out by the dates specified below:

A) Appoint a suitably qualified person(s) to:

1. Conduct an assessment of the extent of the weed known as 'Mother of Millions' within the extent of ML1731.

2. Prepare a Weed Management Plan (WMP) which includes the findings of the assessment outlined in A) 1. above and includes a weed management/eradication plan for all weed species (including 'Mother of Millions') within the extent of ML1731. The WMP is to include reference to applicable noxious weed management requirements and timelines for implementation of proposed control measures. The WMP is to be submitted electronically to the Department via minres.environment@planning.nsw.gov.au no later than 5pm on 19 July 2019 to the satisfaction of the Director Compliance Operations.

B) Implement the WMP approved by the Director Compliance Operations.

C) Report on the progress of the implementation of the WMP in the Annual Rehabilitation Report required pursuant to the conditions of Mining Lease 1731.

The plans were submitted in June 2019 and October 2019 respectively; and accepted by the NSW Department of Planning, Infrastructure & Environment (DPE) via a letter dated 22nd October 2019 reference NTCE0002315 (see

Appendix K). The approved Weed Management Plan identified African Olive, a “Regional Priority Weed”, as to be contained and eradicated from the site.

6.10.2 Activities During Report Period

Photoplate 2 below shows a brief glimpse of the typical African Olive growth on site and an indication of the density of the infestation prior to clearing activities.

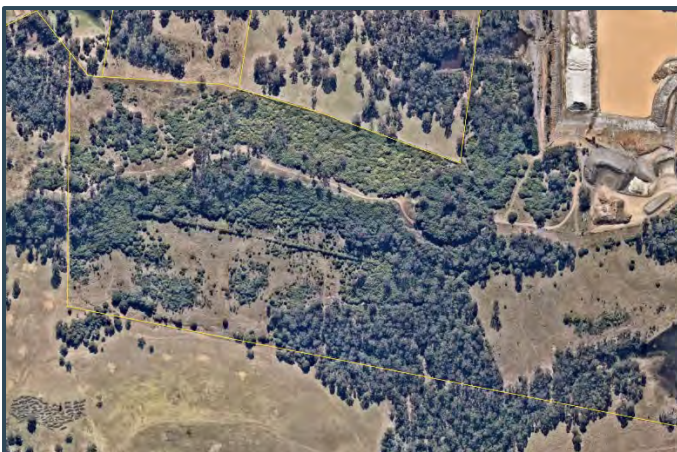
Photoplate 2. Cell I African Olive, 11/01/2021



The following activities were undertaken during the report period in accordance with the Weed Management Plan.

1. An excavator was used to clear around native vegetation so as to not damage trees to be retained.
2. A bulldozer was used to push African Olive into windrows off the crown on the hill, i.e., north and south.
3. Windrows were aligned horizontally across the slope i.e., parallel to the contours, to create surface flow arrestors.
4. These windrows were left to dry until winter 2022.
5. Where African Olive has been cleared, the ground was shallow-ripped and oats and seed grasses were placed for cattle to graze; CSR Property have leased the land for agistment.
6. Cows will feed on the grass and eat any regrowth of African Olive as well.
7. In winter, the Rural Fire Service will be liaised with and assist by control burning the windrows.

Photoplate 3. Evidence of African Olive Removal



August 2021



February 2022

* Note – Yellow is property boundary

6.11 PROGRESSIVE REHABILITATION AND COMPLETION

The mining and rehabilitation plans will be further developed during the next report period as required by the new standard conditions.

6.12 HOURS OF OPERATION

The site operates under the consented hours shown below. No non-compliances with these hours have occurred during the report period.

Table 13. Hours of Operation

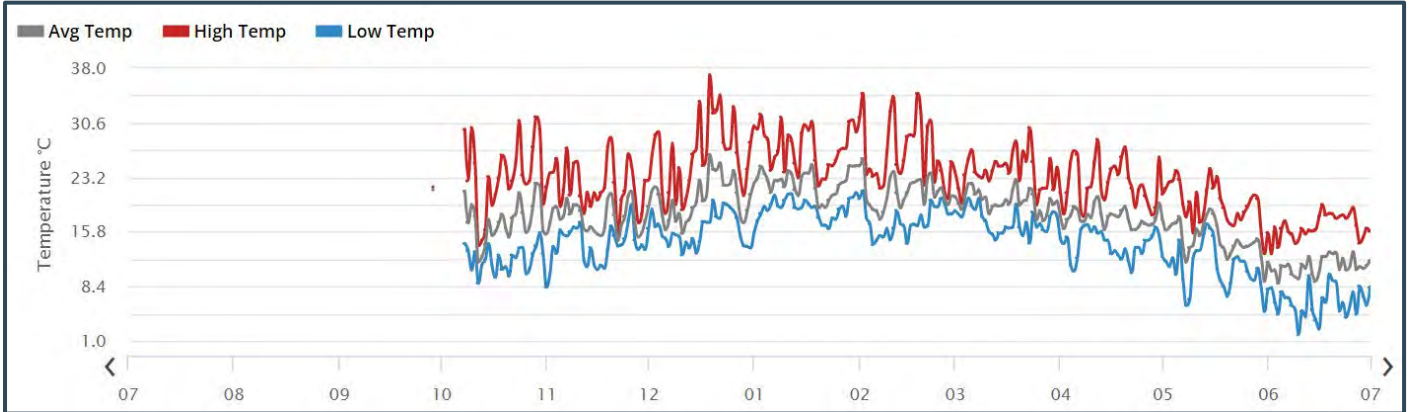
HOURS OF OPERATION	
1.	The Applicant must comply with the operating hours set out in Table 1.
	<i>Table 1: Operating Hours</i>
Activity	Operating Hours
<ul style="list-style-type: none"> • Quarrying operations • Deliveries • Dispatch of finished bricks 	6am to 6pm, Monday to Friday 6am to 1pm, Saturday No activities on Sundays or Public Holidays
Brick making operations (except dispatch of finished bricks)	24 hours a day, 7 days a week
Construction activities	7am to 6pm, Monday to Friday 8am to 1pm, Saturday No construction to be undertaken on Sundays or Public Holidays

7 Environmental Monitoring and Management

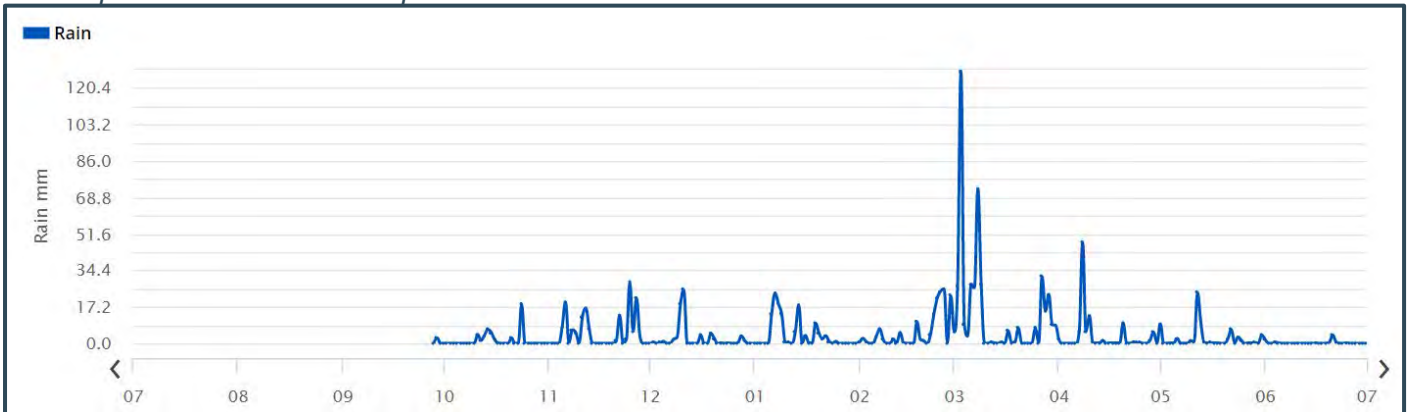
7.1 CLIMATE SUMMARY

A weather station was installed in early 2017; data for the reporting period is shown below.

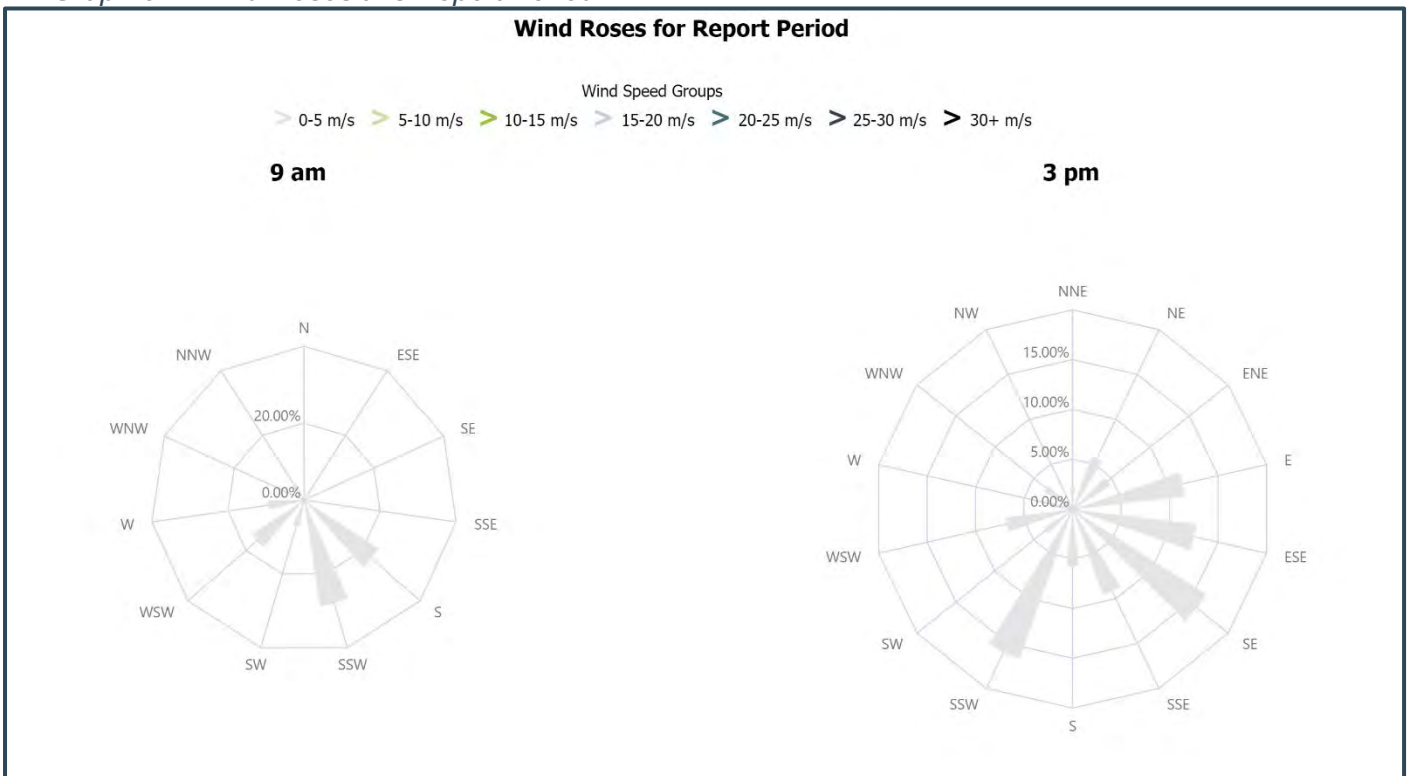
Graph 4. Temperature this Report Period



Graph 5. Rainfall This Report Period



Graph 6. Wind Roses this Report Period



7.2 AIR QUALITY

7.2.1 Monitoring Data

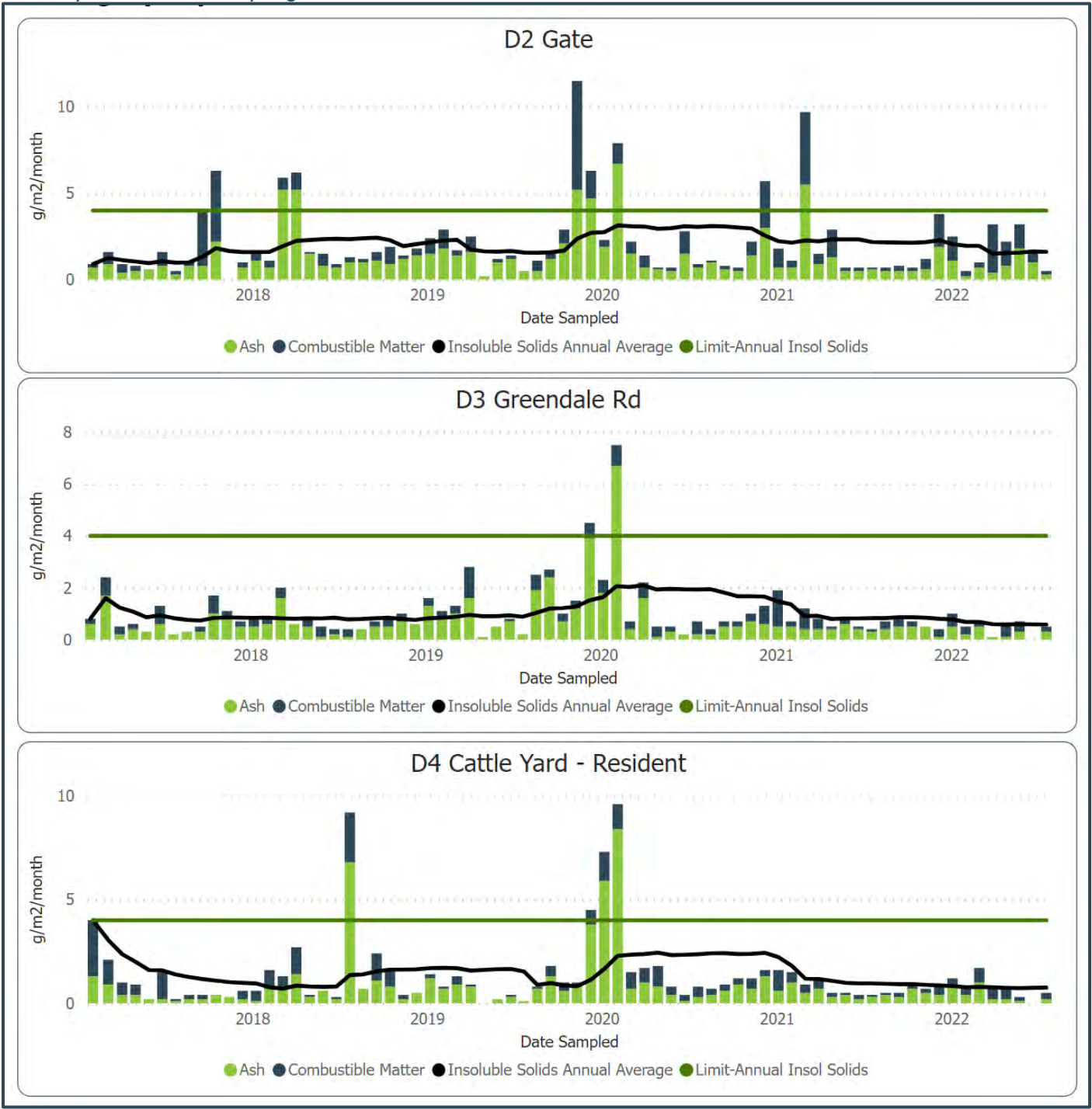
7.2.1.1 Depositional Dust Gauges

Air-borne dust is monitored using static dust gauges. Results for three dust gauges during the reporting period are included below. The dusts were sampled from three locations, as shown on [Figure Two](#).

Table 14. Depositional Dust Results this Report Period

Site	Annual Average Insoluble Solids g/m ² /month	Max Increase over Background	Max Total Limit
D2 Gate	1.6	2	4
D3 Greendale Rd	0.6	2	4
D4 Cattle Yard	0.7	2	4

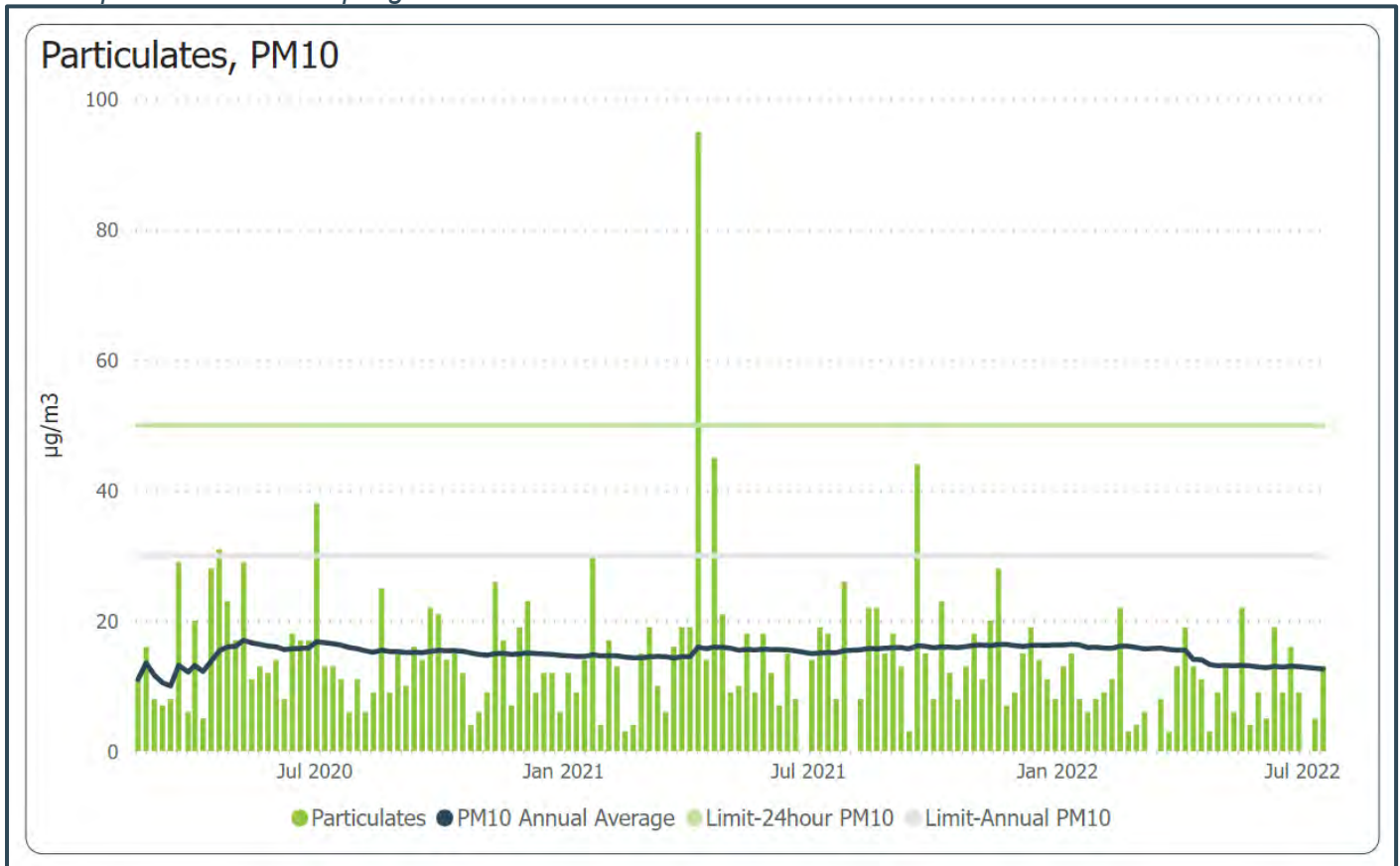
Graph 7. Dust Sampling Results



7.2.1.2 High Volume Air Sampling

One high volume air sampler (HVAS) has also been purchased for the site to monitor dust particulates and the results to date are shown below. All site monitoring equipment is maintained and calibrated in accordance with manufacturer's instructions.

Graph 8. HVAS Sampling Results



Only PM10 measurements have been undertaken to date.

Table 15. Particulate Matter Results for Report Period

Pollutant	Averaging Period	Actual Result	Limit
Total Suspended Particulates (TSP) ($\mu\text{g}/\text{m}^3$)	Annual	32 (Calculated from PM10 = 40% of TSP)	90
Particulate Matter <10 μm (PM10) ($\mu\text{g}/\text{m}^3$)	Annual	13	30
Particulate Matter <10 μm (PM10) ($\mu\text{g}/\text{m}^3$)	24 hour	44 (Max 24 hr average in Report Period)	50

7.2.1.3 Stack Emissions

Emissions testing of the kiln stack was conducted during the reporting period on the 5th May 2022 by Ektimo. The report is found in [Appendix L](#) and the results are reproduced below.

Table 16. Stack Emissions Results and EPL 1808 Limits

EPA No.	Location Description	Pollutant	Units	Licence Limit	Concentration (mg/m ³)	Mass Rate (g/min)
					Detected Values 5/05/2022	
2	Kiln Exhaust Stack	Total Solid Particles	mg/m ³	100	21	19
		Nitrogen Oxides (as NO ₂)	mg/m ³	2000	94	84
		Total Fluoride (as HF)	mg/m ³	50	7.4	6.6

Graph 9. Stack Monitoring Trends for EPL 1808

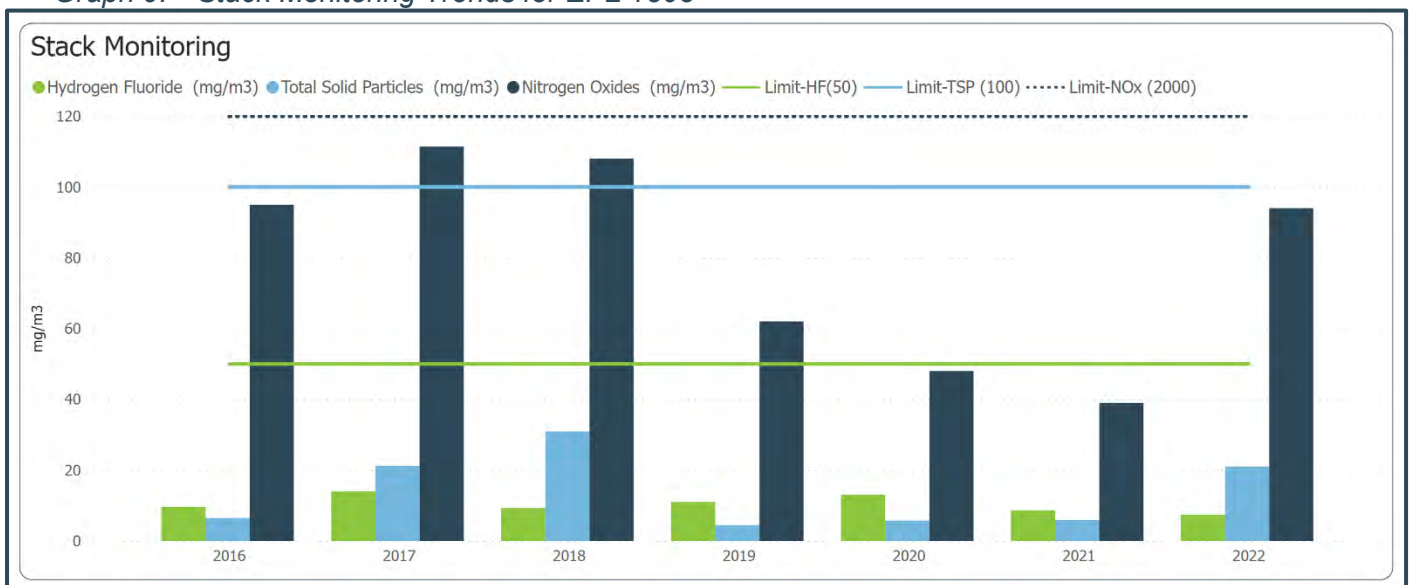


Table 17. Assessable Load for Stack Emissions From 1/6/2021 to 31/5/2022

Assessable Pollutant	Load (kg)*	Load Limit from EPL 1808 (kg)
Coarse Particulates	6,307	8,400
Fine Particulates	3,784	33,300
Fluoride	3,469	11,700
Nitrous Oxides	44,150	90,300
Sulphur Oxides	4,730	186,500

*Sourced from the EPL website.

Stack emissions criteria from the Mod 1 Approval are reproduced below as well as the EPL criteria.

Table 18. Stack Emissions Criteria for Residences

Pollutant	Averaging period	^d Criterion
Sulphur Dioxide	10-minute	712 µg/m ³
	1-Hour	570 µg/m ³
	24-Hour	228 µg/m ³
	Annual	60 µg/m ³
Nitrogen Dioxide	1-Hour	246 µg/m ³
	Annual	62 µg/m ³
Hydrogen Chloride	1 hour	0.14 mg/m ³

Although ambient air quality monitoring has not been undertaken or modelled for the residences on privately owned land, the stack monitoring results were near or below the inputs used for the air modelling (AUSPLUME) in the EIS (see [Table 19](#)).

Table 19. Comparison of Pollutant Concentrations from the EIS AUSPLUME Modelling

Pollutant	Concentration input into AUSPLUME for EIS (g/sec)	Stack Monitoring Results from May 2022 (g/sec)	Stack Monitoring Results from April 2021 (g/sec)
Sulphur Dioxide	1.898	0.15	0.683
Nitrogen Dioxide	1.254	1.4	0.483
Hydrogen Chloride	0.586	0.55	0.500
Hydrogen Fluoride	0.198	0.11	0.011

The results from the stack monitoring are below the EPL 1808 limits. It is therefore unlikely that the residences experienced levels above the criteria during the reporting period.

7.2.2 Non-Compliances

7.2.2.1 Depositional Dust Non- Compliances

The depositional dust monitoring results for the reporting period are all below the annual average criteria. There were no non-compliances.

7.2.2.2 HVAS Non- Compliances

There were no non-compliances with the PM₁₀ monitoring either 24 hour or annual averages.

A non-compliance was initially reported regarding a result of 51 µg/m³ on 28th July 2021. This result was later corrected by the laboratory as the filter was discovered to have run twice, with the result subsequently being halved to 26 µg/m³, which was compliant for the 24 hour average.

7.2.2.3 Stack Emission Non-Compliances

The stack monitoring was within the load base requirements and concentration levels for the EPL reporting year. Comparison to the AUSPLUME modelling input data indicates it is unlikely that the ambient stack emission criteria for residences was exceeded.

7.2.3 Comparison to Predictions

As the mining has not commenced in the extension area comparisons to the predictions in the EIS and SoEE are not able to be made. The results however are consistent with the background pollutant concentrations predicted in the Hyder Consulting EIS.

Table 20. Hyder Consulting EIS Background Air Quality Data Comparison

Air Pollutant	Averaging Period	Background Concentration From EIS (µg/m ³)	Actual Result from Reporting Period
PM₁₀	Annual	16.0	13
	24-hour (maximum)	83.8	44
NO₂	Annual	9.7	Not applicable
	Monthly (maximum)	41	Not applicable
SO₂	Annual	3.5	Not applicable
	Monthly (maximum)	4.5	Not applicable
TSP	Annual	40.0 (estimate value)	Not applicable 32.5 (estimate based on the PM ₁₀ being 40% of the TSP annual average of 13µg/m ³)
Dust Deposition	Annual	1.8 g/m ² /month	D2- 1.6 g/m ² /month D3- 0.6 g/m ² /month D4- 0.8 g/m ² /month

Note: Ambient monitoring of NO₂ and SO₂ at nearby residences is not undertaken (see Section [7.2.1.3](#)).

7.2.4 Trends and Discrepancies Against Predicted and Actual Impacts

Depositional dust results showed a typical increasing seasonal trend during the summer but all annual averages are well below the required criteria. Trends are much lower this report period due to the wetter than usual summer.

HVAS results are variable and no consistent trend was noted.

Stack emissions are also consistent with previous years for EPL recorded results and no significant trends were observed.

7.2.5 Measures to Improve Performance in the Next Reporting Period

There are several sources of airborne dust on the Bringelly Clay Mine site and surrounds. The principal source is earth-moving activities, including ore extraction and stockpiling. Dozers, excavators and haul trucks will produce airborne dust while undertaking clearing, mining and stockpiling activities and by travelling along unsealed internal roads. The use of a water cart during all of these activities will minimise impact on the environment. Pit and stockpile rehabilitation with vegetation established as soon as practicable will assist with prevention of dust generation. Other air pollutants include gases from the kiln and dryers, since the kiln is not being refurbished there is minimal opportunity to reduce these emissions from current levels.

7.3 WATER/SEDIMENT/EROSION

7.3.1 Surface Water

7.3.1.1 Monitoring Data

All discharges during the report period occurred in compliance with the EPL conditions. Except for a period between the 2nd and 15th March 2022, all discharge results from Point 5 as tested were within discharge concentration limits. Rainfall received in March 2022 was greater than 50mm over a consecutive 5 day period, therefore exceedance of these limits is permitted. All site monitoring equipment is maintained and calibrated in accordance with manufacturer's instructions.

The EPL limits for discharged water are outlined below.

Table 21. EPL Discharge Concentration Limits

POINT 1

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Oil and Grease	milligrams per litre				10
pH	pH				6.5-8.5
Turbidity	nephelometric turbidity units				150

POINT 5

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Conductivity	microsiemens per centimetre				1450
Oil and Grease	milligrams per litre				10
pH	pH				6.5-8.5
Turbidity	nephelometric turbidity units				150

Water quality testing has been undertaken of the water held in the dams during the reporting period as shown below. Only results that have been discharged are shown.

Graph 10. Water Quality Monitoring, Discharged from Point 5

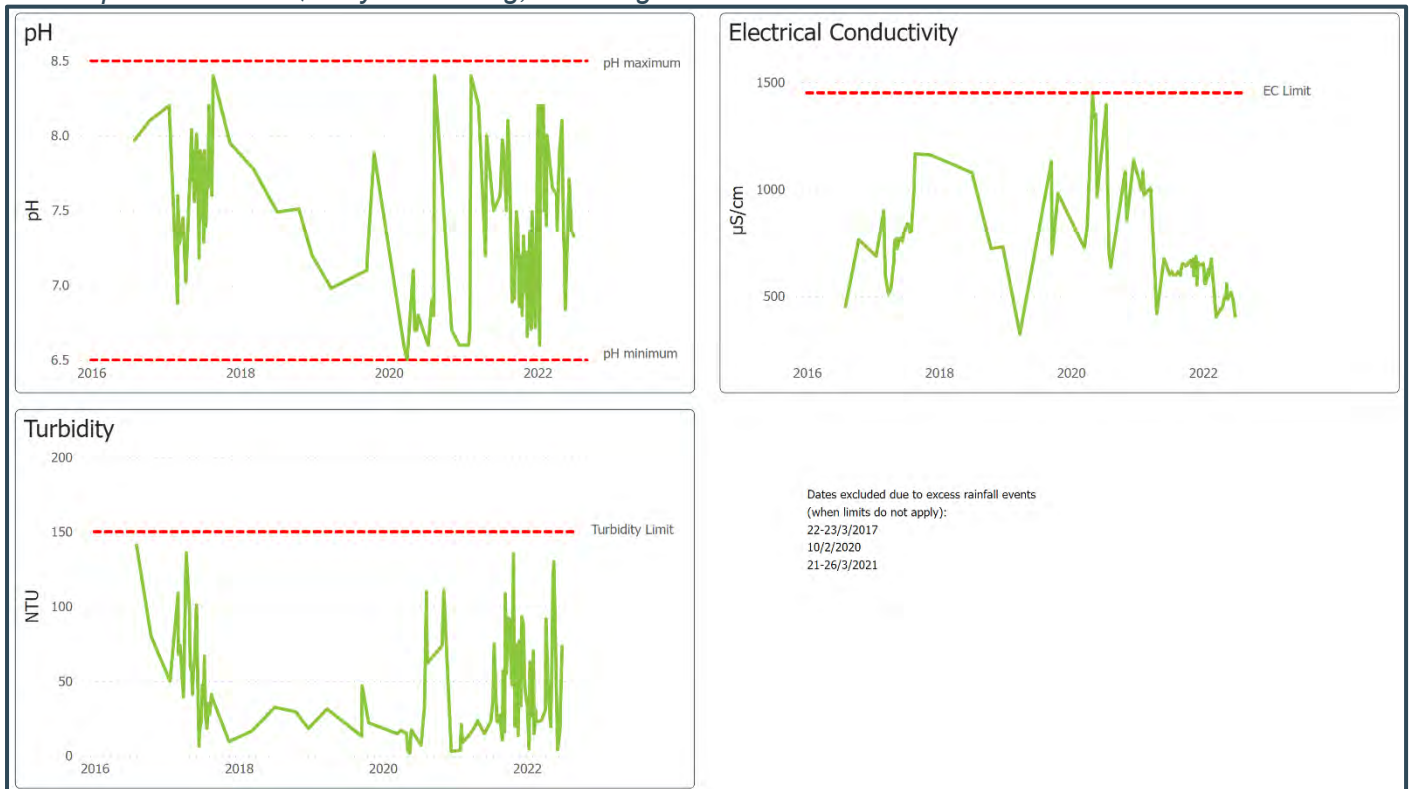


Table 22. Summary of Point 5 Discharged Results During Report Period

Analyte	Minimum	Average	Maximum	EPL Limit
pH	6.6	7.4	8.2	6.5 – 8.5
Electrical Conductivity (uS/cm)	402	590	684	1450
Turbidity (NTU)	4.1	52	135	150
Oil & Grease (mg/L)			<10	10

7.3.1.2 Non-Compliances

There were no non-compliances during the report period.

7.3.1.3 Comparison to Predictions

The EIS states that the adoption of the water management measures described in the EIS and SoEE would ensure that the project meets the required EPL conditions. This has been achieved this report period.

7.3.1.4 Trends and Discrepancies Against Predicted and Actual Impacts

The pH and Conductivity of the dams is variable and no significant trends have been noted. Turbidity is also variable and below the EPL criteria. Oil and Grease has not been detected in Dam 5 during the report period.

No water was discharged from the site that did not meet EPL discharge criteria.

7.3.1.5 Measures to Improve Performance in the Next Reporting Period

The site will continue to monitor surface water as required. The Water Management Plan will be reviewed and updated as required. As more data becomes available, future trends will be identified and compared to predictions.

7.3.2 Erosion and Sediment

7.3.2.1 Monitoring Data

Generally, the site is prone to moderate erosion, but this is limited to the exposed worked areas of the quarry. Erosion over the disturbed area is mitigated as much as possible through the establishment of vegetation, which binds the soil and traps silt. Rainfall that occurs over the active mine site does cause some minor erosion on unfinished surfaces, but the sediments are collected on the floor of the mine within the sediment dams. Eroded soils and sediment captured within the pit sump become a part of the surface water management process.

Slopes are kept moderate where possible in the pit to reduce erosion hazard and benches are present on the site.

The capacity of the dams has been monitored during the reporting period. The installation of Dam 7 is under review.

Completion of the Monthly Stormwater Management System Inspection Checklist will commence prior to works in extension area.

An inspection by the Resources Regulator was undertaken on the 15th of April and observations and recommendations were discussed in correspondence dated 7th May 2021 (see Section 4.3.4). During the inspection it was noted that;

'...two (2) significant tunnel erosion areas were observed on the western side of the pit shell. These areas appear to be the location of concentrated water flow from off-site inflows as well as on-site sources. Whilst it was observed that sediment was being captured in-pit, these erosion areas have the potential to 'cut-back' and de-stabilise the upper pit shell and affect the soil resource in advance of the current mining area.

It is recommended that PGH conduct a review of the surface water management in this area and determine the cause of this ongoing problem. A suitable remedial action plan should be developed in consultation with neighbouring properties to ensure excessive water ponding and/or rapid water movement in this area is reduced, controlled or eliminated.'

The washout in the south west corner was completely repaired in February 2022. Long term solutions are under investigation.

7.3.2.2 Non-Compliances

There were no non-compliances relating to the erosion and sediment management.

7.3.2.3 Comparison to Predictions

The site erosion and sediment control appears to be performing adequately, although as mining in the extension area has not commenced, comparison to some of the predictions is limited.

7.3.2.4 Measures to Improve Performance in the Next Reporting Period

The site will monitor sediment and erosion monthly. The Water Management Plan will be reviewed and updated as required. As more data becomes available, trends will be identified and compared to predictions.

7.4 GROUNDWATER

7.4.1 Monitoring Data

Quarrying operations has not proceeded below 46m AHD.

Four groundwater monitoring bores were installed on the site as shown in [Figure Two](#) in 2013. The bores are all registered under Licence 10BL605770 with the NSW Office of Water.

Groundwater sampling commenced mid-2017. Note, GW3 groundwater monitoring bore, located in the stockpile area, was damaged some years ago and cannot be sampled at this stage.

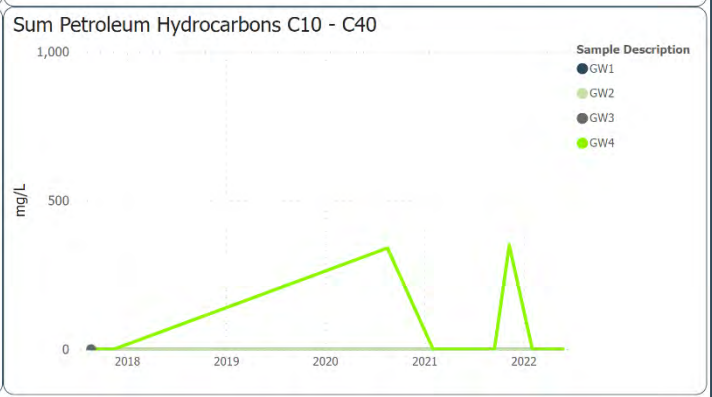
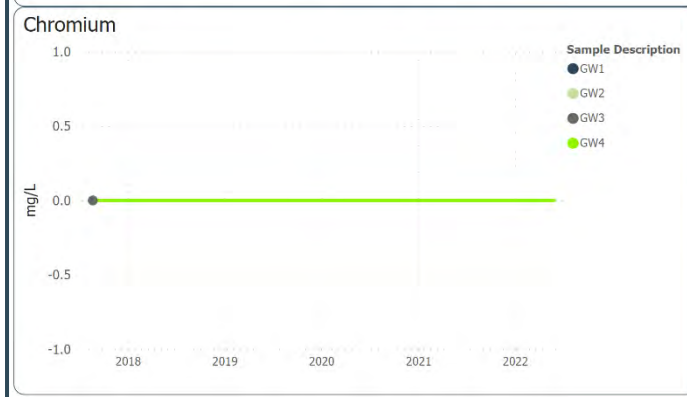
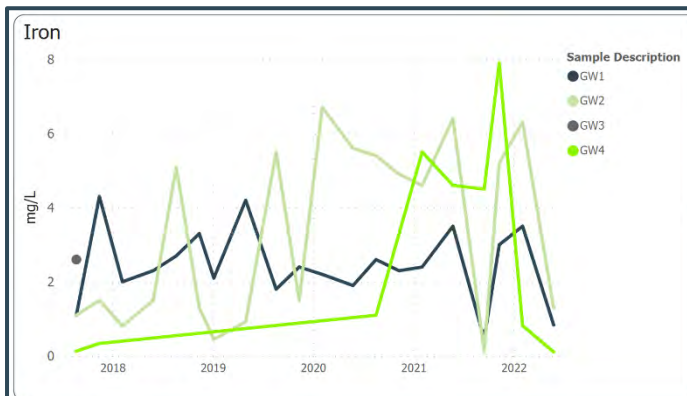
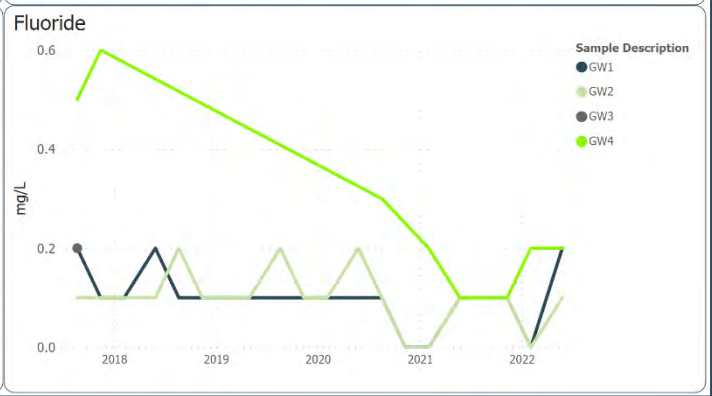
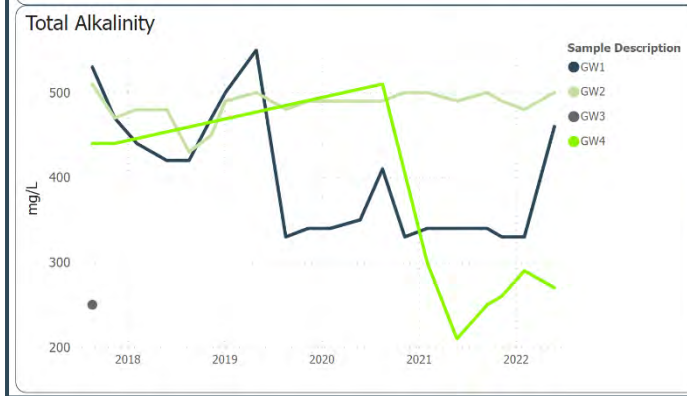
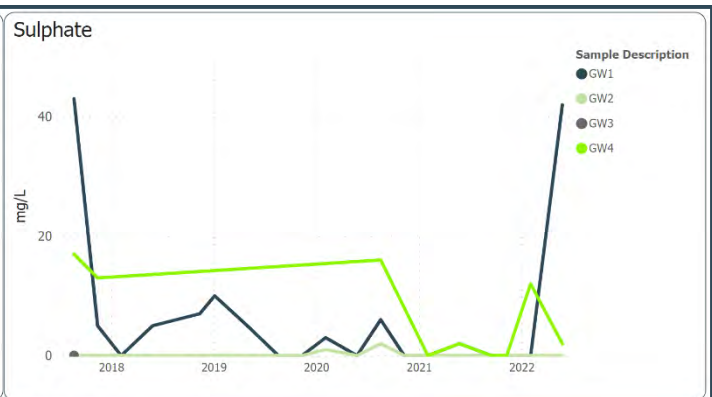
In summary:

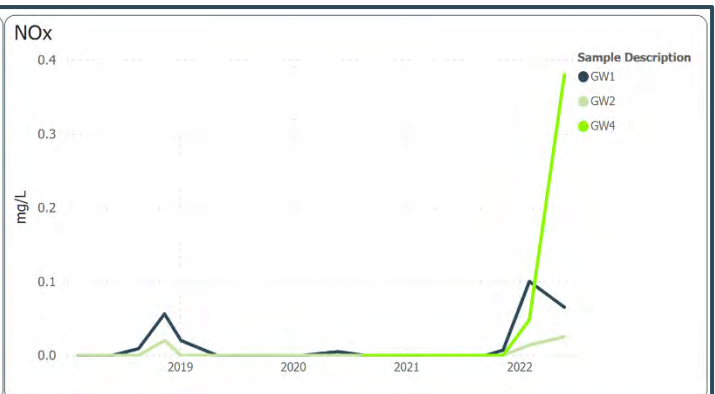
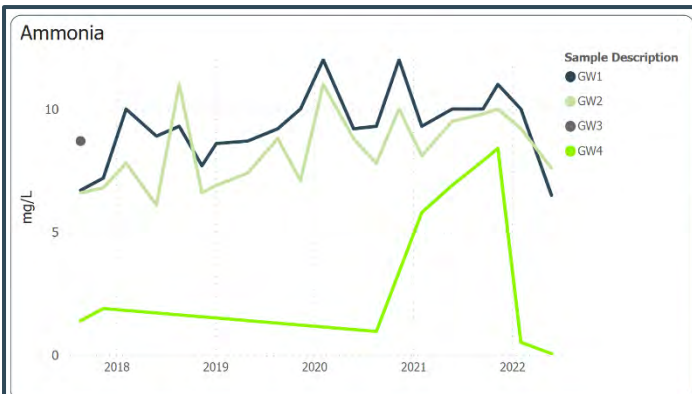
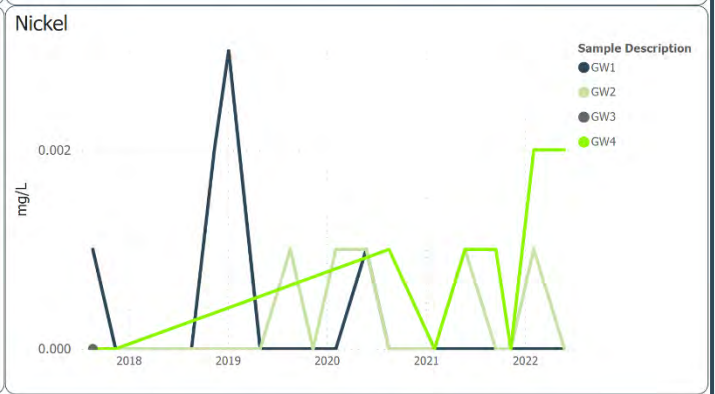
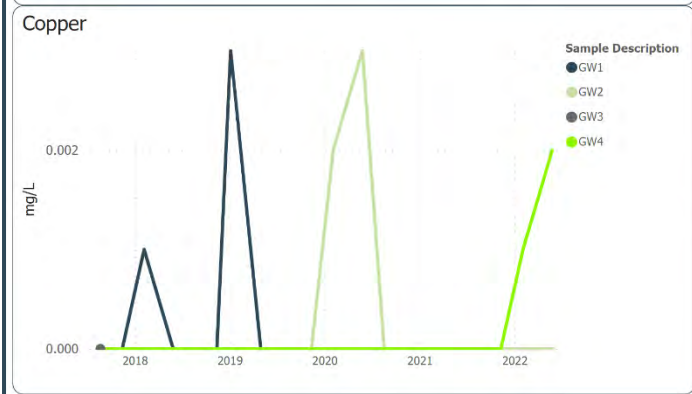
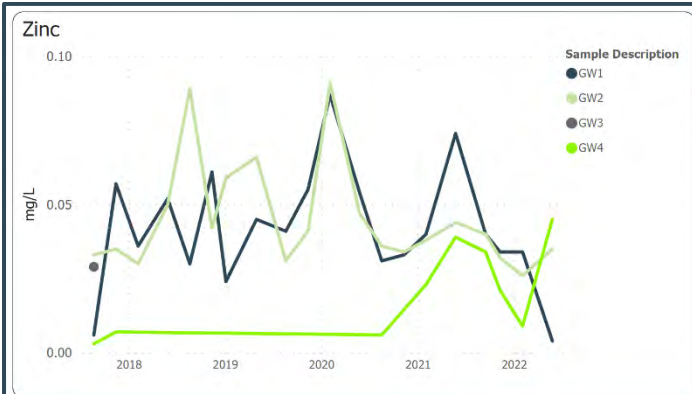
- All sampled water levels are fairly stable, however, GW4 is stable frequently at a low standing water level, with insufficient water volume available to pump and sample.
- The pH's of GW1, GW2 are fairly neutral, remaining between the 6.5 to 7.5 range;
- The conductivity and chloride of GW1 is consistently higher than GW2 but both respond similarly over time;
- GW4 appears to be decreasing in pH since 2018 and increasing in Conductivity since February 2021;
- Anions and Cations for GW1 and GW2 are fairly consistent and similar to each other;
- GW4 cations have increased since February 2021 and anions all decreased with the exception of Chloride;
- Iron and Manganese appear to be on a slightly increasing trend for GW2 and GW4 bores with a marked increase in GW4 from February 2021;
- Zinc, Copper and Nickel for GW1 and GW2 are fairly consistent and Barium shows a slight increasing trend;
- GW4 shows an increase in Zinc, Barium from February 2021;
- Hydrocarbons were detected at low levels in November 2021 in GW4;
- Nutrients within GW1 and GW2 are similar to each other and GW4 again shows a general increase from February 2021;

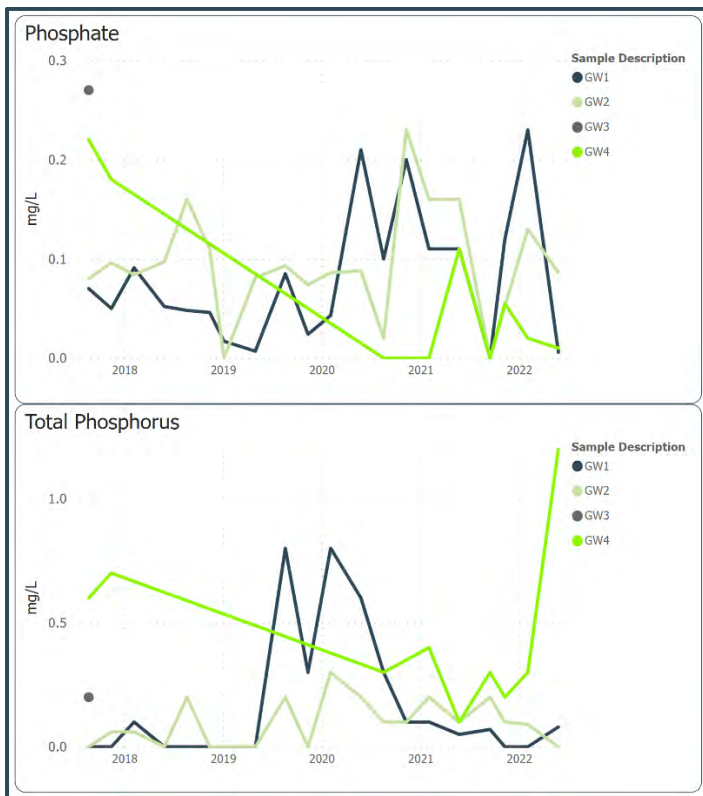
Results are presented in the graphs below. Note, only metals where positive results have been detected are shown.

Table 23. Groundwater Results









7.4.2 Non-Compliances

There were no non-compliances relating to the groundwater management.

7.4.3 Comparison to Predictions

The Groundwater Management Plan (GMP) predicted a negligible change in the groundwater regional flow as a result of the proposed activities. As the ground extraction area has not increased, the testing of the prediction cannot be made.

There were no activities noted that may have contributed to the presence of hydrocarbons in November 2021 in GW4.

7.4.4 Trends and Discrepancies Against Predicted and Actual Impacts

To date the groundwater quality and depth levels have remained fairly consistent. As the extension of the mine has not commenced no impacts are attributable to the quarrying in the extension area.

7.4.5 Measures to Improve Performance in the Next Reporting Period

The site will continue to monitor the bores. The Groundwater Management Plan will be reviewed and updated as required. As more data becomes available, trends will be identified and compared to predictions.

7.5 NOISE

7.5.1 Monitoring Data

Approval conditions list the noise limits as follows.

Table 24. SSD Noise Criteria

Noise Criteria				
2. The Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 2 at any residence on privately-owned land.				
Table 2: Noise criteria dB(A)				
Activity	Receiver	Day/Evening/Shoulder	Night	
		L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{A1} (max)
Brick making and quarrying	R1, R2	47	Not Applicable	
	R3, R4, R14	48		
	R15, R17	45		
	All other receivers	44		
Brick making	All receivers	44	43	53

Notes:

- To locate the receivers referred to in Table 2 refer to Appendix 3.
- After the first review on any EPL granted for this development under Section 78 of the POEO Act, nothing in this consent prevents the EPA from imposing stricter noise limits on the quarrying operations on site under the EPL.

Appendix 5 sets out the metrological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

Noise monitoring was undertaken during the reporting period in December 2021, March 2022 and June 2022. September 2021 monitoring was not possible due to the Covid lockdown. Noise monitoring results indicated that the site-attributable contributions were estimated to satisfy the relevant noise criteria at all locations during the assessments (see [Appendix N](#)).

Table 25. Noise Results in Report Period

Receiver	Activities Occurring	Date / Time	L _{Aeq} (15min)	Limit	L _{A1} (max)	Limit
R1	Brick making + Quarrying	2/11/22 Day	<35	47	Not measured	N/A
		2/2/22 Day	<35			
		18/5/22 Day	<35			
R1	Brick making	1/11/22 Evening	<35	44	Not measured	N/A
		2/2/22 Evening	<35			
		18/5/22 Evening	36			
R1	Brick making	1/11/22 Night	<35	43	Not measured	53
		2/2/22 Night	<35			
		18/5/22 Night	38			
R3	Brick making + Quarrying	2/11/22 Day	<35	46	Not measured	N/A
		2/2/22 Day	<35			
		18/5/22 Day	<40			
R3	Brick making	1/11/22 Evening	<35	44	Not measured	N/A
		2/2/22 Evening	<35			
		18/5/22 Evening	<40			

Receiver	Activities Occurring	Date / Time	L _{Aeq} (15min)	Limit	L _{A1} (max)	Limit
R3	Brick making	1/11/22 Night	38	43	Not measured	53
		2/2/22 Night	<35			
		18/5/22 Night	<40			
R14	Brick making + Quarrying	2/11/22 Day	<35	46	Not measured	N/A
		2/2/22 Day	<35			
		18/5/22 Day	<40			
R14	Brick making	1/11/22 Evening	<35	44	Not measured	N/A
		2/2/22 Evening	<35			
		18/5/22 Evening	<35			
R14	Brick making	1/11/22 Night	<35	43	Not measured	53
		2/2/22 Night	<35			
		18/5/22 Night	<35			
R20	Brick making + Quarrying	2/11/22 Day	<35	44	Not measured	N/A
		2/2/22 Day	<35			
		18/5/22 Day	<40			
R20	Brick making	1/11/22 Evening	<35	44	Not measured	N/A
		2/2/22 Evening	<35			
		18/5/22 Evening	<35			
R20	Brick making	1/11/22 Night	<35	43	Not measured	53
		2/2/22 Night	<35			
		18/5/22 Night	<35			
R35	Brick making + Quarrying	2/11/22 Day	<35	44	Not measured	N/A
		2/2/22 Day	<35			
		18/5/22 Day	<35			
R35	Brick making	1/11/22 Evening	<35	44	Not measured	N/A
		2/2/22 Evening	<35			
		18/5/22 Evening	<35			
R35	Brick making	1/11/22 Night	<35	43	Not measured	53
		2/2/22 Night	<35			
		18/5/22 Night	<35			

7.5.2 Non-Compliances

There were no non-compliances recorded during the reporting period. No noise complaints have been received during the reporting period.

7.5.3 Comparison to Predictions

The noise assessment in the EIS considered two operational scenarios:

- 24-hour processing and brick making activities; and
- Daytime quarrying campaigns, with processing and brick making also being carried out.

7.5.3.1 Processing and Brick Making Activities

For about 6 months each year, processing and brick making activities were predicted to be the only operational noise source on site. The assessment indicates that there would be no exceedances of the Project Specific Noise Levels (PSNL) at any receiver under this operational scenario.

The EIS also includes an assessment of the potential for sleep disturbance associated with the night-time processing and brick making activities. The assessment found that the project would not exceed the applicable sleep disturbance criteria at any locations.

None of the results in this report contradict the predictions.

7.5.3.2 Quarrying Campaigns

No comparison to the predictions can be made as mining in the extension area has not commenced.

7.5.3.3 Construction Noise

During construction of the new site access road and the noise bund adjacent to Greendale Road, the EIS assessment predicts exceedances of the applicable ICNG criteria of 49 dB(A) (i.e. 10 dB above the background noise level) at receivers 3 and 4, which would exceed the criteria by 2 and 17 dB(A), respectively. No other exceedances are predicted to occur.

No construction has been undertaken during the reporting period therefore comparisons to the predictions in the EIS are not possible.

7.5.4 Trends and Discrepancies Against Predicted and Actual Impacts

No trends or discrepancies have been identified to date, noting that the quarry extension and road/bund construction has not commenced.

7.5.5 Measures to Improve Performance in the Next Reporting Period

The site will continue to monitor noise in the next reporting period. The Noise Management Plan will be reviewed and updated as required. As more data becomes available, trends will be identified and compared to predictions.

7.6 BIODIVERSITY

7.6.1 Monitoring Data

No monitoring or maintenance of the Biodiversity Offset Area has been undertaken as the Biodiversity Management Plan is yet to be approved. The Biodiversity Management Plan (BMP) has been submitted to DPE for approval in June 2022. Requests for further information in July 2022 were responded to immediately.

7.6.2 Non-Compliances

There were no non-compliances recorded during the reporting period.

7.6.3 Comparison to Predictions

No comparison to the predictions can be made until the BMP is approved and commences.

7.6.4 Trends and Discrepancies Against Predicted and Actual Impacts

No trends or discrepancies can be identified until the BMP is approved and commences.

7.6.5 Measures to Improve Performance in the Next Reporting Period

Not applicable until BMP is approved and commences. Once approved, the BMP will be reviewed and updated as required.

7.7 HERITAGE

7.7.1 Monitoring Data

No monitoring for heritage items has been undertaken as the requirement under the conditions of Approval (Schedule 3 Condition 27) have not been triggered i.e. no works have commenced in the extension area.

7.7.2 Non-Compliances

There were no non-compliances recorded during the reporting period.

7.7.3 Measures to Improve Performance in the Next Reporting Period

The Heritage Management Plan will be reviewed and updated as required.

7.8 VISUAL

7.8.1 Monitoring Data

The site is required to minimise the visible impact of the development, in accordance with Schedule 3 Conditions 28 and 29. Overall the site has very little impact to the visual amenity of neighbouring properties and road users.

Under the Approval conditions the monitoring of a vegetation screen to be established on noise bunds must be undertaken. The noise bunds have not been constructed as works in the extension area has not commenced therefore there is no monitoring of the vegetation screen.

The quarry does not utilise lighting and operates during daylight hours. The factory is lit for security purposes at night but is sufficient distance from residents for the impact to be minimal.

Photoplate 4. View of Site Entrance and Quarry from Greendale Road, 2021



Photoplate 5. View of Site Entrance and Quarry from Greendale Road, 2022



Photoplate 6. View of North Western Bundwalls from Greendale Road, 2021



Photoplate 7. View of North Western Bundwalls from Greendale Road, 2022



Photoplate 8. View of Quarry from Residence to the West, 2021



Photoplate 9. View of Quarry from Residence to the West, 2022



Photoplate 10. View of Site from Residents in the South East, 2021



Photoplate 11. View of Site from Residents in the South East, 2022



Photoplate 12. View of Site from Residents in the East, 2021



Photoplate 13. View of Site from Residents in the East, 2022



7.8.2 Non-Compliances

There are no non-compliances with regards to visual impacts and no complaints have been received.

7.8.3 Comparison to Predictions

The EIS predicted that the overall visual character of the project would remain largely unchanged. The site would be generally unobtrusive when viewed from surrounding properties and public roads. To date the site is unchanged visually as predicted.

7.8.4 Measures to Improve Performance in the Next Reporting Period

Visual monitoring of the bund wall screening will commence with the construction and vegetation of the bund walls.

7.9 WASTE

7.9.1 Monitoring Data

The mine generates minimal overburden which is reused in rehabilitation. Waste generated by the brickworks is stored in the appropriate containers and removed by licenced waste contractors. Site waste streams data is collated and monitored internally. PGH reviews its purchasing and waste policies and procedures regularly to improve processes as required.

7.9.2 Non-Compliances

There have been no non-compliances related to the on-site sewerage treatment and disposal in the last 12 months. No waste has been imported to the site. Spill kits are available on site and by mining contractors and all fuel is stored in bunded areas.

7.9.3 Comparison to Predictions

The EIS predicted that the continuation and expansion of the operations on the site would result in the generation of the same types and quantities of wastes generated under existing operations. As the extension areas works have not commenced, comparison of overburden waste is not possible as no overburden was produced. Wastes generated by the brickworks is similar to previous years.

7.9.4 Trends and Discrepancies Against Predicted and Actual Impacts

No trends of discrepancies can be identified as the works in the extension area have not commenced.

7.9.5 Measures to Improve Performance in the Next Reporting Period

The waste management and minimisation measure will be reviewed in the next reporting period. A program of monitoring and characterising materials to be re-used in rehabilitation has been included in the Rehabilitation Risk Assessment and incorporated into the updated Rehabilitation Management Plan.

7.10 BUSHFIRE

7.10.1 Control Measures

The site maintains a Site Emergency Response Procedure which includes bushfire management measures. Slashing of fire breaks is undertaken as required to remove potential fuel material. PGH maintains fencing around the site to discourage trespassing and the risk of deliberately lit fires. Procedures and training exist for PGH personnel and contractors, within site Emergency Response Procedures for minimising fire risk and dealing with fires.

PGH bushfire policy does not permit staff to engage in firefighting activities or bushfire management. All firefighting is undertaken by the RFS. Hazard reduction is based on RFS advice and not undertaken by PGH. PGH ensure that the facility is suitably equipped and access available to fight fires on site.

Site management will liaise with RFS to minimise fire risk as advised and is responsible for managing fire risk within policy guidelines.

PGH commits to work with RFS on any reasonable request to improve property risk profile. The site has suitable access and ongoing dialogue with RFS will ensure that the facility is accessible for fighting fires. In addition, dams on site will be made available for RFS as required in the event of fire.

In the event of a fire, on site or in the surrounding area, PGH will work as much as practical in co-operation with RFS, emergency services and National Parks and Wildlife Service. The presence of a bushfire in the area will activate the PIRMP.

7.10.2 Non-Compliances

There are no non-compliances relating to bushfire management.

7.10.3 Comparison to Predictions

The proposed expansion to the quarry extraction areas and consequent vegetation clearing was predicted to not enhance any risks to adjoining land, nor make the facilities any more likely to be subject to bushfire hazard. There have been no bushfires within the site during the reporting period, although state-wide bushfires were experienced over the summer period.

7.10.4 Trends and Discrepancies Against Predicted and Actual Impacts

The site bushfire management is appropriate and there were no adverse impacts due to bushfire.

7.10.5 Measures to Improve Performance in the Next Reporting Period

Maintenance of fire breaks will continue over the next reporting period. The Bushfire Management Plan will be reviewed and updated as required.

7.11 PUBLIC SAFETY

7.11.1 Monitoring Data

In the interest of public safety and reducing the incidence of trespassers, fences and signage have been maintained along the perimeter of the mine site throughout the reporting period. There have been no incidents involving public safety and no incidences of trespassing. All visitors to the site must report to the gate office to sign in.

7.11.2 Measures to Improve Performance in the Next Reporting Period

Fences and signage will continue to be maintained and monitored during the next reporting period and repairs completed as required.

8 Rehabilitation

8.1 MONITORING DATA

The Plant Manager (or delegate), in consultation with a qualified ecologist or bush regenerator, will undertake at least quarterly inspections of the site in accordance with the Rehabilitation Management Plan and the EMS to ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in the Approval. During these inspections, the facility's condition, and environmental controls, will be observed and recorded. More specifically, observations and inspections of the implementation measures and objectives of the RMP are to be undertaken. Records will include details of any maintenance of controls required and an implementation priority. Site assessments will continue until such time as the completion criteria have been achieved.

8.2 NON-COMPLIANCES

There are no non-compliances that relate to rehabilitation.

8.3 COMPARISON TO PREDICTIONS

Rehabilitation to date has been reviewed in the ARR submitted to the RR annually and approved. Rehabilitation to date has been consistent with the Rehabilitation Objectives.

8.4 MEASURES TO IMPROVE PERFORMANCE IN THE NEXT REPORTING PERIOD

New standard conditions for large mines with an Environment Protection Licence come into effect on Saturday 2 July, 2022. The Bringelly site operators are in the process of undertaking a gap analysis between the requirements of the new Mining Lease conditions and the Approval conditions with regard to the Rehabilitation Management Plan and supporting documents. As the new standard conditions require a Rehabilitation Management Plan in the "Form and Way" and the Approval conditions require a stand alone document covering several different clauses and conditions, there is some difficulty in combining requirements whilst minimising changes requiring further department approval.

8.5 FURTHER DEVELOPMENT OF THE FINAL REHABILITATION PLAN

The Final Landuse Options Plan was submitted to the DPE on 23/2/22 and approved on 3/6/22.

9 Completion Criteria

Completion criteria have been identified and approved in the MOP and will be further detailed under the new standard mining lease conditions in the next report period. No progress towards the completion criteria as stated in the MOP has been made during this reporting period.

10 Calculation of Security Deposit

A security deposit calculation was calculated in 2015 to accompany the Mine Lease Application (MLA) submission, calculations can be provided upon request. This security was estimated to be \$776,441.88. The estimate was made on the current footprint of the mine, which is yet to expand beyond the previous consent boundaries. Updates to the security calculation will be undertaken in accordance with the new standard conditions.

11 Community Consultation

A meeting of the Community Consultation Committee for the PGH Bringelly site was held via Zoom in September 2021. Traffic on Greendale Road around the school was discussed, along with the upcoming removal of African Olives in the south west of the site. Minutes are included in [Appendix M](#).

12 Complaints

No complaints were received during the reporting period.

13 Incidents and Non-Compliances

No incidents or non-compliances have occurred during the report period.

13.1 PARTICULATE MATTER LESS THAN 10 MICRON

A non-compliance was initially reported regarding a result of 51 µg/m³ on 28th July 2021, which exceeded the 24-hour average limit of 50 µg/m³. This result was later corrected by the laboratory as the filter was discovered to have run twice, with the result subsequently being halved to 26 µg/m³.

14 Improvement Measures

Table 26. Improvement Measures

Item	Due
Update any strategies, plans or programs as required under Approval conditions and submit to DPE for approval prior to commencement in the extension area.	As required
Provide annual quarry production data to RR using the online portal.	By 31st October 2022 for year ending 30th of June
The noise bund adjacent to the northern boundary of the extraction area is to be constructed.	Subject of Mod 2.
Maintain the effectiveness of noise suppression equipment on plant and equipment on site;	At all times
Minimise the noise impacts of the development during meteorological conditions under which the noise criteria in this Approval do not apply.	During adverse meteorologic conditions
Design and construct the new site access road intersection with Greendale Road in accordance with applicable AUSTROADS standards, to the satisfaction of Camden Council. Notify the Secretary in writing within 30 days of obtaining Council approval. Note: New intersection has prompted re-design by Council and consultation is continuing.	Subject of Mod 2. PGH has requested and been approved for an extension covering the annual review period for the access way.
Continue liaison with DPE regarding the Biodiversity Management Plan.	Next report period
Make suitable arrangements to provide appropriate long-term security for the offset area, to the satisfaction of DPE.	Next report period and subject of Mod 2
Lodge a conservation bond with DPE to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.	Within 6 months of the approval of the Biodiversity Management Plan
Update all Plans and Reporting under the Mine Lease conditions to be compliant with the July 2022 changes in the Mining Act and Regulation.	Underway
Establish a vegetation screen on both noise bunds, as soon as practicable after construction of the bunds.	As soon as practicable after construction of the bunds
Continue liaison with Community Consultative Committee	As required
Continue Environmental Monitoring and compare with relevant limits and undertake measures to maintain compliance with criteria.	As required
Continue weed control measures in accordance with the Weed Management Plan and as advised by Camden Council and qualified specialists.	Ongoing

Appendix A

SSD_5684 Approval Conditions Mod 1

Development Consent

Section 89E of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning, I approve the development application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

These conditions are required to:

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

David Kitto
Executive Director
Resource Assessments and Business Systems

Sydney

2015

SCHEDULE 1

Application Number:

SSD_5684

Applicant:

Boral Bricks Pty Ltd

Consent Authority:

Minister for Planning

Land:

[Lot 100 in DP 1203966](#)

Development:

Bringelly Brickworks Extension Project

Modification 1 (October 2016 shown in [blue](#) text)

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DEFINITIONS

AHD	Australian Height Datum
Annual Review Applicant	The review required by condition 4 of schedule 5 Boral Bricks Pty Ltd, or any other person or persons who rely on this consent to carry out the development that is subject to this consent
BCA	Building Code of Australia
Biodiversity offset strategy	The conservation and enhancement strategy described in the EIS, and shown conceptually in Appendix 4
Brick making operations	Includes the receipt, handling, processing, storage and transportation of raw materials on site, brick making on site and transportation of finished bricks on site
CCC	Community Consultative Committee
Conditions of consent	Conditions contained in schedules 1 to 5 inclusive
Construction	The demolition of buildings or works, carrying out of works and erection of buildings covered by this consent
CPI	Australian Bureau of Statistics Consumer Price Index
Date of commencement	The date notified to the Department by the Applicant under condition 8 of Schedule 2
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Environment
Development	The development described in the documents of condition 2(a) of Schedule 2
Development area	All land to which the development application applies, as listed under "Land" in schedule 1 and shown in Appendix 1
DPI Water	Department of Primary Industries - Water
DRE	Division of Resources and Energy, within the NSW Department of Industry
EEC	Endangered Ecological Community, as defined under the <i>Threatened Species Conservation Act 1995</i>
EIS	Environmental Impact Statement titled <i>Bringelly Brickworks and Quarry Expansion</i> (2 volumes), dated September 2013, as modified by the Response to Submissions titled, <i>Bringelly Brickworks and Quarry Expansion, Response to Submissions</i> dated February 2014 and the letter entitled <i>Bringelly Brickworks – Biodiversity Offsets</i> , dated 2 June 2014
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence under the POEO Act
Evening	The period from 6pm to 10pm
Extension area	The area outside of the existing quarry footprint (i.e. cells D, E, F, G, H and I, as shown conceptually in Appendix 2)
Feasible	Feasible relates to engineering considerations and what is practical to build
GDE	Groundwater Dependent Ecosystem
GPS	Global Positioning System
Growth Centres SEPP	<i>State Environmental Planning Policy (Sydney Regional Growth Centres) 2006</i>
Ha	Hectare
Incident	A set of circumstances that: <ul style="list-style-type: none"> • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this consent
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in schedules 3 and 4 of this consent

	where it is defined to mean the whole of a lot, or contiguous lots, owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
m	Metres
Minister	Minister for Planning, or delegate
Mitigation	Activities associated with reducing the impacts of the development
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NP&W Act	<i>National Parks and Wildlife Act 1974</i>
OEH	NSW Office of Environment and Heritage
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency or the Applicant (or its subsidiary)
Quarrying operations	Includes the removal of overburden and extraction, handling, storage and transportation of extractive materials on site
Raw materials	Raw materials imported for use in brick making including clay/shale and additives (such as manganese and iron oxides)
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Rehabilitation	The restoration of land disturbed by the development to a good condition, ensuring that it is safe, stable and non-polluting and appropriately revegetated
RMS	Roads and Maritime Services
Secretary	Secretary of the Department, or nominee
SEE (Mod 1)	Statement of Environmental Effects titled 'Section 96(1A) Modification Supporting Information' dated August 2016 and prepared by Element Environment, including the Response to Submissions document dated September 2016
Site	The land listed under "Land" in schedule 1
Shoulder	The period between 6am to 7am on Monday to Saturday
South West Growth Centre	An area of land identified under the Growth Centres SEPP

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this consent, the Applicant **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 development.

TERMS OF CONSENT

2. The Applicant **must**:
 - (a) carry out the development generally in accordance with the EIS **and SEE (Mod 1)**; and
 - (b) the conditions of this consent.

Note: The general layout of the development is shown in Appendix 2.

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

LIMITS ON CONSENT

Quarrying and Brick Making Operations

5. The Applicant may carry out quarrying **operations** and brick making operations from the date of commencement of development under this consent until 1 March 2045.

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

Production Limits

6. The Applicant **must** not:
 - (a) extract more than 200,000 tonnes of clay/shale from the site in any calendar year;
 - (b) produce more than 263,500 tonnes of bricks at the site in any calendar year;
 - (c) carry out quarrying operations beyond 46 m AHD; and
 - (d) receive more than **321,000** tonnes of raw materials required for brick making to the site in any calendar year.

Transportation Limits

7. The Applicant **must** not:
 - (a) transport more than 263,500 tonnes of bricks from the site in a calendar year;
 - (b) receive more than 90 trucks to the site per day or more than 18 trucks per hour; and
 - (c) dispatch more than 90 trucks from the site per day or more than 18 trucks per hour.

NOTIFICATION OF COMMENCEMENT

8. **Prior to commencing development under this consent, the Applicant must notify the Department in writing of the date on which it will commence development permitted under this consent.**

SURRENDER OF EXISTING DEVELOPMENT CONSENT

9. Within 4 months of commencing development under this consent, the Applicant must surrender the development consent (DA 91/1194) for existing operations on the site in accordance with Section 104A of the EP&A Act.

Following the commencement of development under this consent, the conditions of this consent (including any notes) shall prevail to the extent of any inconsistency with the conditions of the existing development consent (DA 91/1194).

STRUCTURAL ADEQUACY

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

Notes:

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

DEMOLITION

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

PROTECTION OF PUBLIC INFRASTRUCTURE

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

Note: This condition does not apply to any damage to roads caused as a result of general road usage.

OPERATION OF PLANT AND EQUIPMENT

13. The Applicant must ensure that all plant and equipment used on site or any monitoring equipment used off site for monitoring the performance of the development is:
- maintained in a proper and efficient condition; and
 - operated in a proper and efficient manner.

UPDATING AND STAGING STRATEGIES, PLANS OR PROGRAMS

14. With the approval of the Secretary, the Applicant may submit any strategies, plans or programs required by this consent on a progressive basis.

To ensure the strategies, plans or programs under the conditions of this consent are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval.

With the agreement of the Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this consent.

Notes:

- While any strategy, plan or program may be submitted on a progressive basis, the Applicant must ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times.
- If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage 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.

15. Until they are replaced by an equivalent strategy, plan or program approved under this consent, the Applicant **must** implement the existing strategies, plans or programs for the site that have been approved under DA 91/1194.

IDENTIFICATION OF APPROVED LIMITS OF EXTRACTION

16. Prior to undertaking quarrying operations in the extension area, the Applicant **must**:
 - (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction within the development area; and
 - (b) submit a survey plan of these boundaries with applicable GPS coordinates to the Secretary.
17. While quarrying operations are being carried out, the Applicant **must** ensure that these boundaries are clearly marked at all times to allow operating staff and inspecting officers to clearly identify the approved limits of extraction.

PRODUCTION DATA

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

DEVELOPER CONTRIBUTIONS

19. The Applicant **must** pay Camden Council road maintenance contributions of \$0.0811 for every tonne of material transported to and from the site, indexed to CPI. Each payment must be:
 - (a) paid to Council at the end of each calendar year; and
 - (b) based on weighbridge records of all supplementary brick making materials transported to the site and bricks and spoil transported from the site.

Note: If the parties are not able to agree on any aspect of the maintenance contributions, either party may refer the matter to the Secretary for resolution.

**SCHEDULE 3
ENVIRONMENTAL PERFORMANCE CONDITIONS**

HOURS OF OPERATION

- The Applicant **must** comply with the operating hours set out in Table 1.

Table 1: Operating Hours

Activity	Operating Hours
<ul style="list-style-type: none"> • Quarrying operations • Deliveries • Dispatch of finished bricks 	6am to 6pm, Monday to Friday 6am to 1pm, Saturday No activities on Sundays or Public Holidays
Brick making operations (except dispatch of finished bricks)	24 hours a day, 7 days a week
Construction activities	7am to 6pm, Monday to Friday 8am to 1pm, Saturday No construction to be undertaken on Sundays or Public Holidays

NOISE

Noise Criteria

- The Applicant **must** ensure that the noise generated by the development does not exceed the criteria in Table 2 at any residence on privately-owned land.

Table 2: Noise criteria dB(A)

Activity	Receiver	Day/Evening/Shoulder	Night	
		<i>L_{Aeq(15 min)}</i>	<i>L_{Aeq(15 min)}</i>	<i>L_{A1(max)}</i>
Brick making and quarrying	R1, R2	47	Not Applicable	
	R3, R4, R14	46		
	R15, R17	45		
	All other receivers	44		
Brick making	All receivers	44	43	53

Notes:

- To locate the receivers referred to in Table 2 refer to Appendix 3.
- After the first review on any EPL granted for this development under Section 78 of the POEO Act, nothing in this consent prevents the EPA from imposing stricter noise limits on the quarrying operations on site under the EPL.

Appendix 5 sets out the metrological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Applicant has a written agreement with the relevant landowner/s to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

Construction Noise

- The Applicant **must** manage noise generated during the construction of the new site access road and associated road alignment works, and the noise bund adjacent to Greendale Road, in accordance with the guidelines specified in Table 2 of the *Interim Construction Noise Guideline*.

Note: Management guidelines are applicable to receivers 3 and 4, shown in Appendix 3.

Noise Bunds

4. The Applicant must ensure that the noise bund adjacent to the northern boundary of the extraction area is constructed prior to the commencement of quarrying operations in the extension area.
- 4A. The Applicant must ensure that the noise bund adjacent to Greendale Road is constructed prior to the commencement of brick making operations.

Operating Conditions

5. The Applicant **must**:
 - (a) implement all reasonable and feasible mitigation measures to minimise construction, operational and road noise of the development;
 - (b) implement periods of respite during the construction of the new site access road and associated road alignment works, and the noise bund adjacent to Greendale Road;
 - (c) regularly assess noise monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the noise criteria in this consent;
 - (d) maintain the effectiveness of noise suppression equipment on plant and equipment on site;
 - (e) minimise the noise impacts of the development during meteorological conditions under which the noise criteria in this consent do not apply (see Appendix 5); and
 - (f) carry out regular noise monitoring to determine whether the development is complying with the relevant conditions of this consent, to the satisfaction of the Secretary.

Noise Management Plan

6. The Applicant **must** prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
 - (a) be prepared in consultation with the EPA;
 - (b) be submitted to the Secretary for approval prior to the commencement of **development** under this consent, unless the Secretary agrees otherwise;
 - (c) describe the reasonable and feasible mitigation measures that would be implemented to ensure:
 - construction noise is minimise;
 - compliance with the relevant noise criteria and operating conditions in this consent;
 - best management practice is being employed; and
 - the noise impacts of the development are minimised during meteorological conditions under which the noise criteria in this consent do not apply;
 - (d) describe the proposed noise management system on site; and
 - (e) include a quarterly (or as otherwise agreed with the Secretary) noise monitoring program that:
 - uses attended monitoring to evaluate the compliance of the development against the noise criteria in this consent;
 - evaluates and reports on the effectiveness of the noise management system and the best practice noise management measures; and
 - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

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

AIR QUALITY

Air Quality Criteria

7. The Applicant **must** implement all reasonable and feasible avoidance and mitigation measures so that particulate matter emissions generated by the development do not exceed the criteria in Tables 3 to 6 at any residence on privately-owned land.

Table 3: Long-Term Criteria for Particulate Matter

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

Table 4: Short-Term Criteria for Particulate Matter

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

Table 5: Long-Term Criteria for Deposited Dust

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

Table 6: Long and Short-Term Stack Emissions

Pollutant	Averaging period	^d Criterion
Sulphur Dioxide	10-minute	712 µg/m ³
	1-Hour	570 µg/m ³
	24-Hour	228 µg/m ³
	Annual	60 µg/m ³
Nitrogen Dioxide	1-Hour	246 µg/m ³
	Annual	62 µg/m ³
Hydrogen Chloride	1 hour	0.14 mg/m ³

Notes to Tables 3-6:

- ^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources).
- ^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own).
- ^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
- ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Secretary in consultation with EPA.

Operating Conditions

8. The Applicant **must**:
- implement all reasonable and feasible measures to minimise the stack and dust emissions of the development;
 - minimise surface disturbance and maximise progressive rehabilitation;
 - minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note (d) to Tables 3-6 above); and
 - monitor and report on compliance with the relevant air quality conditions in this consent; to the satisfaction of the Secretary.

Air Quality Management Plan

9. The Applicant **must** prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with the EPA;
 - be submitted to the Secretary for approval prior to the commencement of **development** under this consent, unless the Secretary agrees otherwise;
 - describe the measures that would be implemented to ensure:
 - compliance with the air quality criteria and operating conditions under this consent;
 - best practice management is being employed; and
 - the air quality impacts of the development are minimised during adverse meteorological conditions;
 - describe the air quality management system; and
 - include an air quality monitoring program that:
 - evaluates and reports on:
 - the effectiveness of the air quality management system; and
 - compliance with the air quality criteria and operating conditions; and
 - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.

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

METEOROLOGICAL MONITORING

10. For the life of the development, the Applicant **must** ensure that there is a suitable meteorological station operating in the vicinity of the site that:
 - (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
 - (b) is capable of continuous measurement of stability class, in accordance with the *NSW Industrial Noise Policy*, or as otherwise approved by EPA.

TRANSPORT

Monitoring of Product Transport

11. The Applicant **must** keep accurate records of the:
 - (a) **tonnage** of bricks transported from the site (monthly and annually);
 - (b) amount of raw material imported to the site (monthly and annually); and
 - (c) **tonnage of each type of raw materials imported to the site (monthly and annually)**; and provide the Secretary with a summary of this information upon request.

Parking

12. The Applicant **must** provide sufficient parking on-site for all development-related traffic, in accordance with Camden Council's parking codes, to the satisfaction of the Secretary.

Operating Conditions

13. The Applicant **must** ensure that:
 - (a) all development-related heavy vehicles enter and exit the site in a forward direction;
 - (b) all laden vehicles entering or exiting the site have their loads covered (with the exception of vehicles carrying bricks);
 - (c) all laden vehicles that have accessed the extraction and/or stockpile areas are cleaned of sand and other material that may fall on the road, before leaving the site;
 - (d) all heavy vehicles exiting the site travel east of the site along Greendale Road to The Northern Road and/or Bringelly Road;
 - (e) the dispatch of laden trucks is avoided during the peak drop-off and pick-up times at the Bringelly Public School to the greatest extent practicable, particularly prior to the upgrade of the Greendale Road/Bringelly Road intersection by RMS; and
 - (f) no trucks queue at the entrance to the site before 6am.

Access Road Intersection Construction

14. **Within 12 months of commencing development under this consent, unless otherwise agreed with the Secretary, the Applicant must design and construct the new site access road intersection with Greendale Road in accordance with applicable AUSTRROADS standards, to the satisfaction of Camden Council. The Applicant must notify the Secretary in writing within 30 days of obtaining Council approval.**

Within 7 days of completing construction and the new site access road being operational, the existing site access road must be permanently closed.

Transport Management Plan

15. The Applicant **must** prepare a Transport Management Plan for the development to the satisfaction of the Secretary. This plan must:
 - (a) be prepared in consultation with RMS, Camden Council, Liverpool City Council and Bringelly Public School, and be submitted to the Secretary for approval prior to the commencement of **development** under this consent, unless the Secretary agrees otherwise;
 - (b) describe the measures that would be implemented to ensure compliance with the transport operating conditions under this consent, including specific measures to avoid **the arrival and**

- [dispatch](#) of laden trucks from the site during the peak drop-off and pick-up times at the Bringelly Public School;
- (c) include a Code of Conduct for heavy vehicle drivers that addresses:
- travelling speeds;
 - [procedures to minimise noise including a regular Truck Noise Auditing Program](#);
 - [procedures to minimise diesel exhaust emissions](#);
 - instructions to avoid grouping or convoying of trucks;
 - procedures to ensure that drivers adhere to the designated haulage routes and the haulage hours permitted under this consent;
 - instructions to drivers not to overtake each other on the haulage route, as far as practicable, and to maintain appropriate distances between vehicles; and
 - instruction to drivers to be properly safety conscious and to strictly obey all traffic regulations, particularly in relation to school zones along Greendale Road; and
- (d) describe the measures that would be put in place to ensure compliance with the drivers' Code of Conduct and include a program to monitor the effectiveness of the implementation of these measures.

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

SOIL AND WATER

Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the development, including in respect of the extraction and/or interception of groundwater.

Water Supply

16. The Applicant [must](#) ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations under the consent to match its available water supply to the satisfaction of the Secretary.

Water Discharges

17. The Applicant [must](#) comply with the discharge limits in any EPL or with Section 120 of the POEO Act.

Water Management Plan

18. The Applicant [must](#) prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared by suitably qualified person/s approved by the Secretary;
 - (b) be prepared in consultation with the EPA and [DPI Water](#);
 - (c) be submitted to the Secretary for approval [prior to the commencement of development under this consent](#), unless the Secretary agrees otherwise;
 - (d) include a Site Water Balance that:
 - includes details of:
 - quantity of water required to support operations;
 - sources and security of water supply;
 - water use and management on site;
 - reporting procedures; and
 - measures to be implemented to minimise potable water use on site;
 - (e) include a Surface Water Management Plan, that includes:
 - baseline data on surface water flows and quality in the watercourses that could be affected by the development;
 - a description of the surface water management system on site, including:
 - clean water diversions;
 - erosion and sediment controls;
 - the dirty water management system; and
 - water storages (addressing maximum harvestable rights if applicable);
 - performance criteria, including trigger levels for investigating any potentially adverse surface water quality impacts;
 - a program to monitor and report on:
 - any surface water discharges;

- the effectiveness of the water management system; and
 - surface water flows and quality in local watercourses;
 - a plan to respond to any exceedances of the performance criteria.
- (f) a Groundwater Management Plan, which includes:
- baseline data on groundwater levels, yield and quality in surrounding aquifers;
 - groundwater assessment and performance criteria, including trigger levels for investigating potentially adverse groundwater impacts;
 - a program to monitor:
 - groundwater inflows to the quarry pit; and
 - impacts of the development on surrounding aquifers;
 - an analysis of the monitoring results to determine long-term water levels within the quarry void; and
 - a plan to respond to any exceedances of the performance criteria.

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

BIODIVERSITY

Biodiversity Offset Strategy

19. The Applicant **must** implement the Biodiversity Offset Strategy described in the EIS, as summarised in Table 7 and shown conceptually in Appendix 4, to the satisfaction of the Secretary.

Table 7: Summary of the Biodiversity Offsets

Area	Offset Criteria	Size (Ha)
On-site offset	Existing vegetation to be enhanced to establish an area of native woodland comprising species associated with Cumberland Plain Woodland.	1.93

Security of Offsets

20. Within 2 years of **notifying the Department of commencement of development (see condition 8 of Schedule 2)**, unless otherwise agreed with the Secretary, the Applicant **must** make suitable arrangements to provide appropriate long-term security for the offset area, to the satisfaction of the Secretary.

Note: Mechanisms to provide appropriate long term security to the land within the Biodiversity Offset Strategy include a Biobanking Agreement, Voluntary Conservation Agreement or an alternative mechanism that provides for a similar conservation outcome. Any mechanism must remain in force in perpetuity.

Biodiversity Management Plan

21. The Applicant **must** prepare a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the OEH and Camden Council;
 - (b) be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;
 - (c) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;
 - (d) describe the short, medium, and long term measures that would be implemented to:
 - manage the remnant vegetation and habitat on the site and in the offset area and;
 - implement the biodiversity offset strategy, including detailed performance and completion criteria;
 - (e) include performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);
 - (f) include a description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
 - maximising the salvage of resources within the approved disturbance area - including vegetative, soil and cultural heritage resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;

- minimising the impacts on fauna on site, including pre-clearance surveys and minimising the potential exposure to tailings;
 - controlling weeds and feral pests;
 - controlling erosion;
 - controlling access; and
 - bushfire management;
- (g) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
- (h) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

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

Conservation Bond

22. Within 6 months of the approval of the Biodiversity Management Plan, the Applicant **must** lodge a conservation bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.

The sum of the bond **must** be determined by:

- a. calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and
- b. employing a suitably qualified quantity surveyor to verify the calculated costs,
- c. to the satisfaction of the Secretary.

The calculation of the conservation bond must be submitted to the Department for approval at least 1 month prior to lodgement of the final bond.

If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.

If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works.

Notes:

- *Alternative funding arrangements for long term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate (or any other mechanism agreed with OEH) can be used to reduce the liability of the conservation bond.*
- *The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy or the completion of major milestones within the approved plan.*

REHABILITATION

Rehabilitation Objectives

23. The Applicant **must** rehabilitate the site to the satisfaction of the Secretary. Rehabilitation must:
- a. comply with the objectives in Table 8; and
 - b. be generally consistent with the proposed rehabilitation strategy in the EIS, and the final land form shown conceptually in Appendix 4 (unless modified by the Final Land Use Options Plan, prepared in accordance with condition 25 of this consent).

Table 8: Rehabilitation Objectives

Feature	Objective
Site (as a whole)	<ul style="list-style-type: none"> • Safe, stable and non-polluting • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native species and habitat

Surface infrastructure	<ul style="list-style-type: none"> To be decommissioned and removed (unless the Secretary agrees otherwise)
Final void	<ul style="list-style-type: none"> Minimise the size, depth and slope of the batters of the final void Minimise the drainage catchment of the final void
Quarry pit floor	<ul style="list-style-type: none"> Landscaped and revegetated using native flora species, above the anticipated final void water level
Community	<ul style="list-style-type: none"> Ensure public safety

Progressive Rehabilitation

24. The Applicant **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 stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.

Final Land Use Options Plan

25. The Applicant **must** prepare a Final Land Use Options Plan for the site to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with DRE and Camden Council;
 - be submitted to the Secretary for approval within 2 years of the date of [notifying the Department of commencement of development \(see condition 8 of Schedule 2\)](#), unless the Secretary agrees otherwise;
 - provide details of the conceptual final landform and associated final land uses for the site;
 - ensure that the conceptual final land form is compatible with surrounding land uses, and is consistent with the rehabilitation objectives in Table 8 and the objectives of the Growth Centres SEPP for the South West Growth Centre;
 - inform the Rehabilitation Management Plan (prepared in accordance with condition 26 of this consent); and
 - be reviewed every 7 years to account for applicable land use priorities, and if necessary updated.

Rehabilitation Management Plan

26. The Applicant **must** prepare a Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with OEH, DRE, [DPI Water](#) and Camden Council;
 - be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;
 - provide details of the conceptual final landform and associated land uses for the site (which must be consistent with the Final Land Use Options Plan under condition 25 of this consent);
 - describe the short, medium and long term measures that would be implemented to:
 - manage remnant vegetation and habitat on site; and
 - ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this consent;
 - include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggers for any necessary remedial action;
 - include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and
 - include details of who would be responsible for monitoring, reviewing, and implementing the plan.

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

Note: The Rehabilitation Management Plan must be reviewed, and if necessary updated, following any update of the Final Land Use Options Plan.

HERITAGE

Heritage Management Plan

27. The Applicant **must** prepare a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:
- a. be prepared in consultation with OEH;
 - (a) be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;
 - b. describe the measures that would be implemented to:
 - manage identified heritage objects, previously unidentified heritage objects or the discovery of any human remains on site;
 - ensure ongoing consultation with Aboriginal stakeholders in the conservation and management of any Aboriginal cultural heritage values on site; and
 - protect sites identified adjacent to the development.

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

VISUAL

28. The Applicant **must** establish a vegetation screen on both noise bunds, as soon as practicable after construction of the bunds, to minimise visibility of site infrastructure from outside the development area. Following establishment, the Applicant **must** maintain the vegetation screen, to the satisfaction of the Secretary.
29. The Applicant **must**:
- a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development; and
 - b) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting*, or its latest version.

BUSHFIRE MANAGEMENT

30. The Applicant **must**:
- a) ensure that the development is suitably equipped to respond to any fires on site; and
 - b) assist the Rural Fire Service, emergency services and National Parks and Wildlife Service as much as practicable if there is a fire in the surrounding area.

WASTE

31. Prior to importing onto the site any material that may be classified as a waste under the EPA *Waste Classification Guidelines 2009* (or its latest version), the Applicant **must** obtain a 'resource recovery exemption' under the POEO Act and provide evidence of this exemption to the Department.

Note: This condition does not apply to routine deliveries to the site.

32. The Applicant **must**:
- a) manage on-site sewage treatment and disposal in accordance with the requirements of its EPL, and to the satisfaction of the EPA and Camden Council; and
 - b) pump all sewage generated and stored on-site to a sewage treatment facility, unless otherwise agreed with the Secretary.
33. The Applicant **must**:
- a) minimise the waste generated by the development;
 - b) ensure that the waste generated by the development is appropriately stored, handled, and disposed of; and
 - c) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. As soon as practicable after obtaining monitoring results showing an exceedance of any relevant criteria in schedule 3, the Applicant **must** notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria.

INDEPENDENT REVIEW

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

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

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the development is complying with the relevant criteria in schedule 3;
 - if the development is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and
- (b) give the Secretary and landowner a copy of the independent review.

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

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

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

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

Adaptive Management

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

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

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

Management Plan Requirements

3. The Applicant must ensure that the Management Plans required under this consent are prepared in accordance with any relevant guidelines, and include:
 - (a) detailed baseline data;
 - (b) a description of:
 - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - any relevant limits or performance measures/criteria; and
 - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;
 - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
 - (d) a program to monitor and report on the:

- impacts and environmental performance of the development; and
 - effectiveness of any management measures (see (c) above);
- (e) a contingency plan to manage any unpredicted impacts and their consequences;
- (f) a program to investigate and implement ways to improve the environmental performance of the development over time;
- (g) a protocol for managing and reporting any:
- incidents;
 - complaints;
 - non-compliances with statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
- (h) a protocol for periodic review of the plan.

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

Annual Review

4. By the end of September each year, the Applicant **must submit a report to the Department reviewing** the environmental performance of the development to the satisfaction of the Secretary. This review must:
- (a) describe the development (including rehabilitation) that was carried out in the previous **financial** year, and the development that is proposed to be carried out over the current **financial** year;
- (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous **financial** year, which includes a comparison of these results against:
- the relevant statutory requirements, limits or performance measures/criteria;
 - the monitoring results of previous years; and
 - the relevant predictions in the **documents in condition 2(a) 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 development;
- (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
- (f) describe what measures will be implemented over the current **financial** year to improve the environmental performance of the development.

Revision of Strategies, Plans and Programs

5. **Within 3 months of the submission of an:**
- (a) **Annual Review under condition 4 above;**
- (b) **incident report under condition 7 below;**
- (c) **audit report under condition 9 below; and**
- (d) **any modifications to this consent,**
- the Applicant **must review the strategies, plans and programs required under this consent, to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.**

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

Community Consultative Committee

6. The Applicant **must** establish and operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Developments* (Department of Planning, 2007, or its latest version), and be operating **prior to the commencement of development under this consent.**

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.*

- In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Applicant, Camden Council and the local community.

REPORTING

Incident Reporting

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

Regular Reporting

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

INDEPENDENT ENVIRONMENTAL AUDIT

9. Within a year of **commencing development under this consent**, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant **must** commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
 - (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licence (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 development, and/or any assessment, plan or program required under these approvals; **and be conducted and reported to the satisfaction of the Secretary.**

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

10. Within **12 weeks of commencing** this audit, unless the Secretary agrees otherwise, the Applicant **must** submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, including a timetable for the implementation of any measures proposed to address the recommendations in the audit report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented.

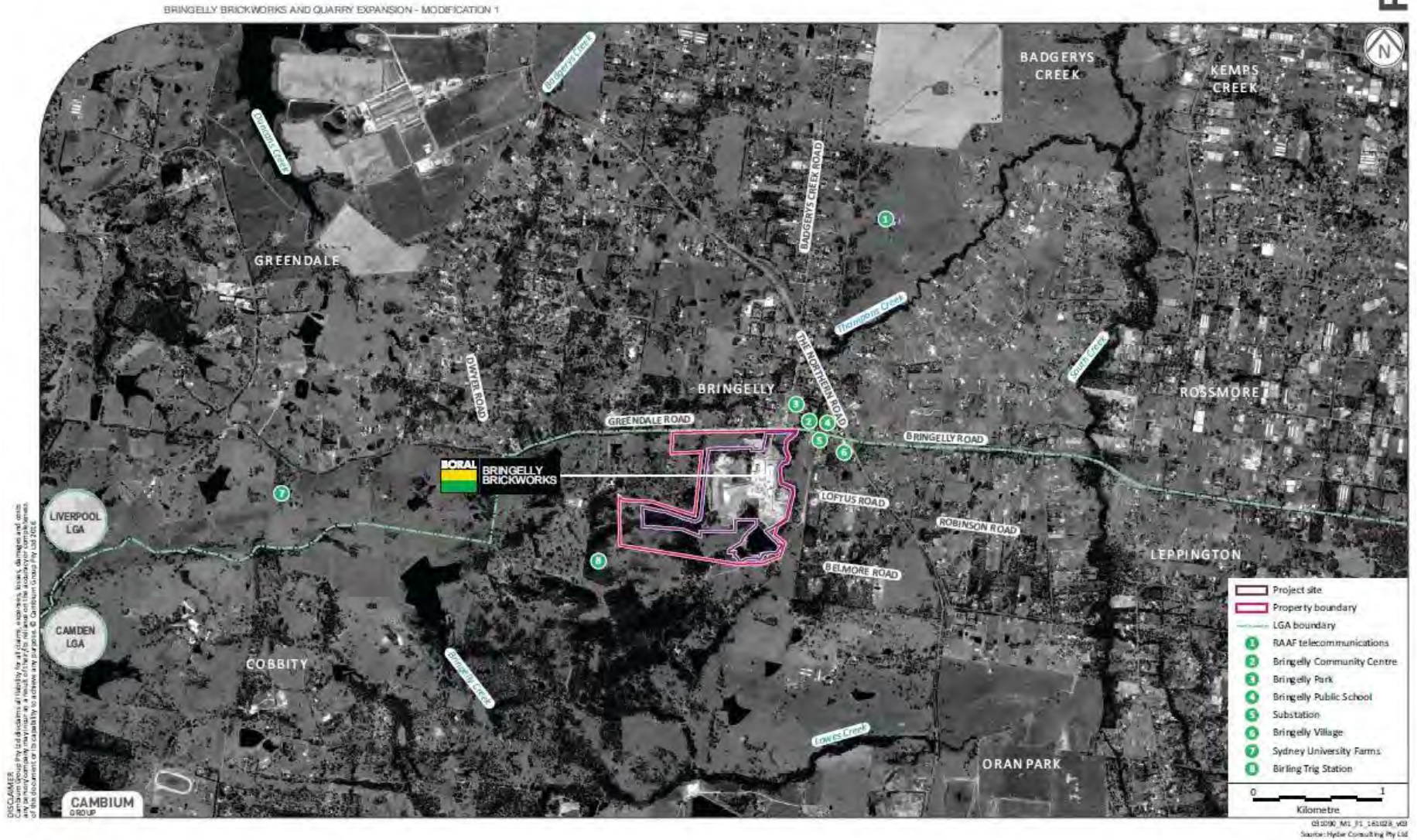
Within 7 days of commencing the audit, the Applicant must notify the Department in writing of the commencement of the audit.

ACCESS TO INFORMATION

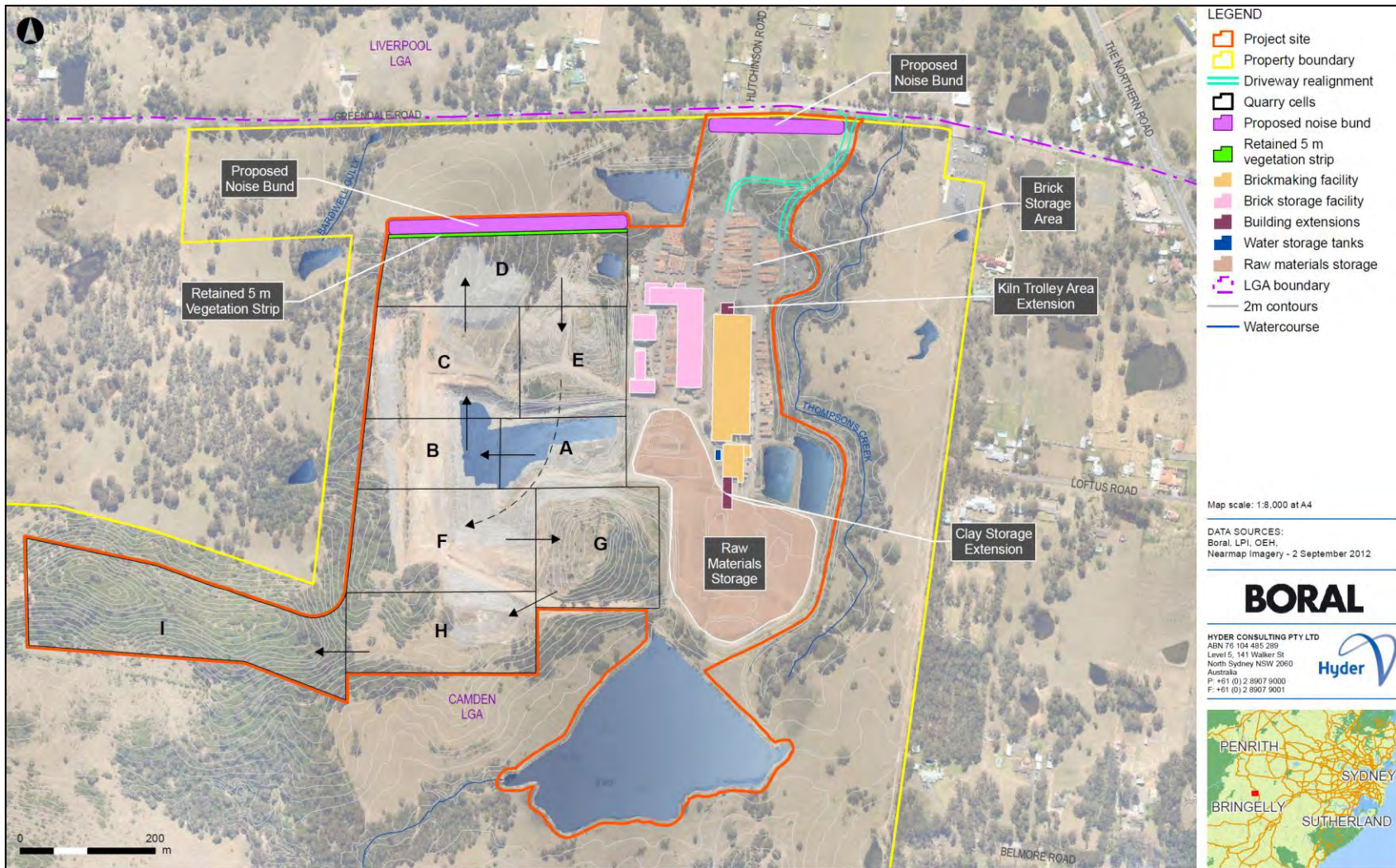
11. Within 6 months of **commencing development under this consent**, the Applicant **must**:
 - (a) make copies of the following publicly available on its website:
 - the documents in **condition 2(a) of Schedule 2**;
 - current statutory approvals for the development;
 - approved strategies, plans and programs required under the conditions of this consent;
 - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - a complaints register, which is to be updated monthly;
 - minutes of CCC meetings;
 - the annual reviews of the development (for the last 5 years);
 - any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;
 - any other matter required by the Secretary; and

(b) keep this information up-to-date,
to the satisfaction of the Secretary.

APPENDIX 1 DEVELOPMENT AREA



APPENDIX 2 DEVELOPMENT LAYOUT

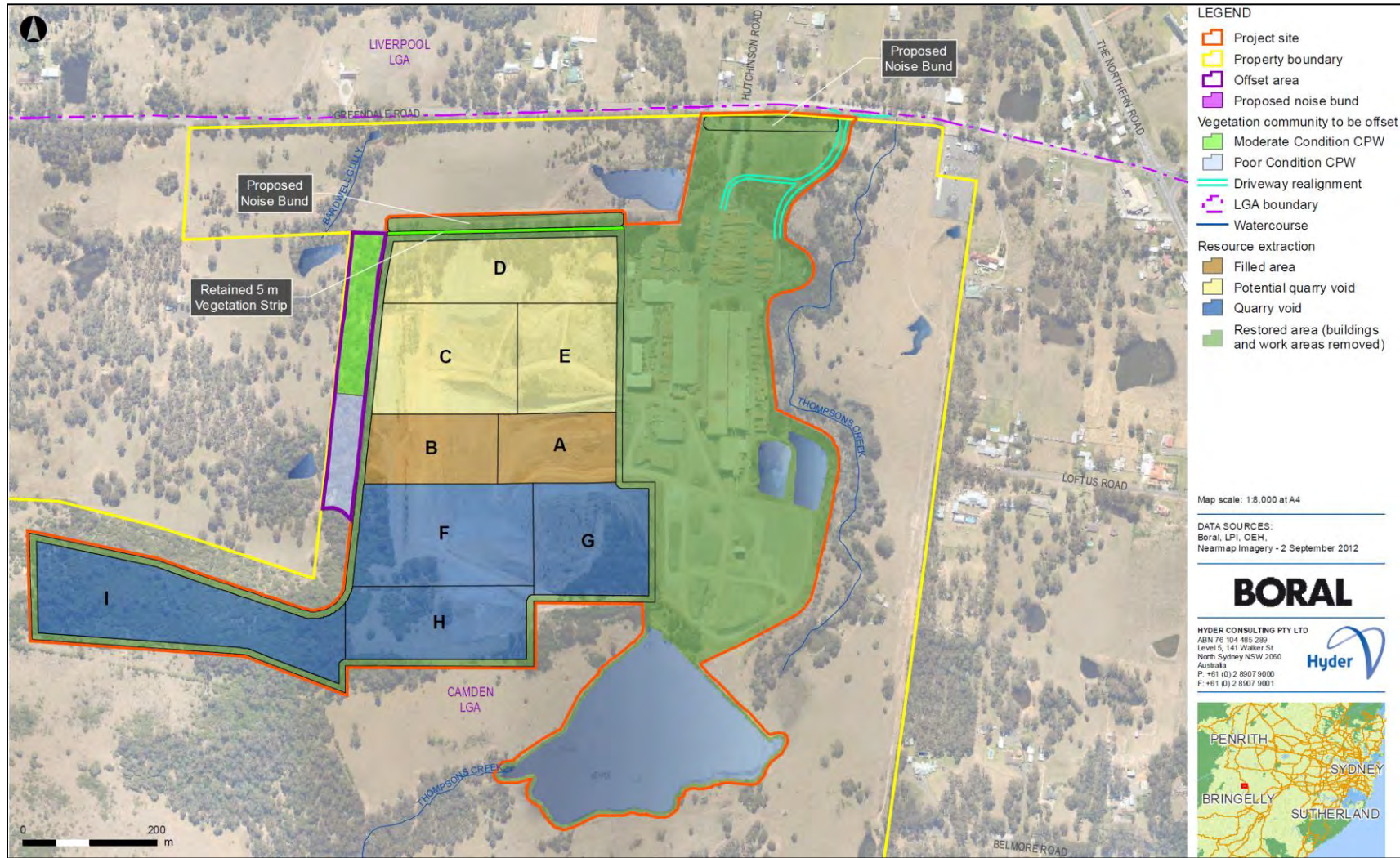


APPENDIX 3 RECEIVER LOCATIONS



Receiver number	Receiver address
1	55 Loftus Road
2	54 Loftus Road
3	20 Greendale Road
4	9 Greendale Road
5	5 Greendale Road (Bringelly Community Centre)
6	46 Loftus Road
7	36 Loftus Road
8	47 Loftus Road
9	37 Loftus Road
10	27 Loftus Road
11	26 Loftus Road
12	15 Loftus Road
13	5 Loftus Road
14	23 Greendale Road
15	27 Greendale Road
16	29 Greendale Road
17	25 Greendale Road
18	31 Greendale Road
19	35 Greendale Road
20	170 Tyson Road
21	196 Greendale Road
22	46 Belmore Road
23	55 Belmore Road
24	63 Belmore Road
25	67 Belmore Road
26	73 Belmore Road
27	83-85 Belmore Road
28	76 Belmore Road
29	86 Belmore Road
30	87 Belmore Road
31	93 Belmore Road
32	95-97 Belmore Road
33	107 Belmore Road
34	96 Belmore Road
35	108 Belmore Road
36	1037 Northern Road
37	10 Greendale Road
38	Bringelly Public School

APPENDIX 4 CONCEPTUAL FINAL LANDFORM AND BIODIVERSITY OFFSET STRATEGY



APPENDIX 5 NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

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

Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions **must** be that recorded by the meteorological station on or in the vicinity of the site.

Compliance Monitoring

3. Unless directed otherwise by the Secretary, quarterly attended monitoring is to be used to evaluate compliance with the relevant conditions of consent.

Note: The Secretary may direct that the frequency of attended monitoring increase or decrease at any time during the life of the development.

4. Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
 - (a) monitoring locations for the collection of representative noise data;
 - (b) meteorological conditions during which collection of noise data is not appropriate;
 - (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
 - (d) modifications to noise data collected including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.

Appendix B Mine Lease 1731 Conditions

MINING LEASE

MINING ACT 1992

NO 1731

DATED 09 MARCH 2016

MINISTER FOR INDUSTRY RESOURCES
AND ENERGY

OF THE STATE

OF NEW SOUTH WALES

TO

BORAL CSR BRICKS PTY LIMITED
ACN 168 794 821

Mining Lease Application No 508

Mining Lease

Section 63 of the *Mining Act 1992*

I, as delegate of the Minister for Industry Resources and Energy for the State of New South Wales, under delegation dated 9 February 2016 pursuant to section 63 of the *Mining Act 1992*, determine Mining Lease Application No 508 by granting a Mining Lease as described in Schedule 1 to **BORAL CSR BRICKS PTY LIMITED, ACN 168 794 821**, subject to the conditions set out in Schedule 2.

The conditions set out in Schedule 2 are required to:

- ensure optimal resource recovery;
- prevent, minimise, and offset adverse environmental impacts;
- provide for the ongoing environmental management of the project; and
- ensure that the areas disturbed by mineral production and exploration activities are appropriately rehabilitated.

The rights and duties of a Lease Holder are those prescribed by the *Mining Act 1992*, subject to the terms and conditions of this Lease. This lease does not override any obligation on the Lease Holder to comply with the requirements of other legislation and regulatory instruments which may apply to the Lease Holder (including all relevant development approvals) unless specifically provided in the *Mining Act 1992* or other legislation or regulatory instruments.



SIGNED

Under delegation

Bryan Whitlock
Manager Royalty and Advisory Services

Dated: 9/3/16

SCHEDULE 1

Description of Lease

Land: The lease area embraces all land described in the attached lease plan titled **M27393** and approved on **21 January 2016**.

Area: **37.25 Hectares**

Minerals/ Mining Purpose: **Clay / Shale**

Method: **Open Cut**

Term: **21 Years**

Due expiry date: **9 March 2037**

**SCHEDULE 2
MINING LEASE CONDITIONS 2013**

Definitions

- 1. Notice to Landholders**
- 2. Rehabilitation**
- 3. Mining Operations Plan and Annual Rehabilitation Report**
- 4. Compliance Report**
- 5. Environmental Incident Report**
- 6. Resource Recovery**
- 7. Security**
- 8. Cooperation Agreement**

Note: Exploration Reports (Geological and Geophysical)

Definitions:

Words used in this mining lease have the same meaning as defined in the *Mining Act 1992* except where otherwise defined below:

Act means the *Mining Act 1992*.

Department means the Division of Resources & Energy within the Department of Industry, Skills and Regional Development.

Environment has the same meaning as in the *Protection of the Environment Operations Act 1997*.

Harm to the environment has the same meaning as in the *Protection of the Environment Operations Act 1997*.

Landholder for the purposes of these conditions does not include a secondary landholder and includes, in the case of exempted areas, the controlling body for the exempted area.

Material harm to the environment has the same meaning as in the *Protection of the Environment Operations Act 1997*.

Minister means the Minister administering the Act.

Pollution incident has the same meaning as in the *Protection of the Environment Operations Act 1997*.

MINING LEASE CONDITIONS 2013

1. Notice to Landholders

- (a) Within a period of three months from the date of grant/renewal of this mining lease, the lease holder must serve on each landholder a notice in writing indicating that this mining lease has been granted/renewed and whether the lease includes the surface. A plan identifying each landholder and individual land parcel subject to the lease area, and a description of the lease area must accompany the notice.
- (b) If there are ten or more landholders, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this mining lease has been granted/renewed; state whether the lease includes the surface and must contain a plan and description of the lease area. If a notice is made under condition 1(b), compliance with condition 1(a) is not required.

2. Rehabilitation

Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.

3. Mining Operations Plan and Annual Rehabilitation Report

- (a) The lease holder 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 lease holder 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.
- (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 *Environmental Planning and Assessment Act 1979*;
 - the *Protection of the Environment Operations Act 1997*; and

- any other approvals relevant to the development including the conditions of this mining lease.
- (c) The MOP must be prepared in accordance with the *ESG3: Mining Operations Plan (MOP) Guidelines September 2013* published on the Department's website at www.resources.nsw.gov.au/environment
- (d) The lease holder may apply to the Minister to amend an approved MOP at any time.
- (e) It is not a breach of this condition if:
- (i) the operations which, but for this condition 3(e) would be a breach of condition 3(a), were necessary to comply with a lawful order or direction given under the *Environmental Planning and Assessment Act 1979*, the *Protection of the Environment Operations Act 1997*, the *Mine Health and Safety Act 2004 / Coal Mine Health and Safety Act 2002* and *Mine Health and Safety Regulation 2007 / Coal Mine Health and Safety Regulation 2006* or the *Work Health and Safety Act 2011*; and
 - (ii) the Minister had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out.
- (f) The lease holder must prepare a Rehabilitation Report to the satisfaction of the Minister. The report must:
- (i) provide a detailed review of the progress of rehabilitation against the performance measures and criteria established in the approved MOP;
 - (ii) be submitted annually on the grant anniversary date (or at such other times as agreed by the Minister); and
 - (iii) be prepared in accordance with any relevant annual reporting guidelines published on the Department's website at www.resources.nsw.gov.au/environment.

Note: The Rehabilitation Report replaces the Annual Environmental Management Report.

4. Compliance Report

- (a) The lease holder must submit a Compliance Report to the satisfaction of the Minister. The report must be prepared in accordance with any relevant guidelines or requirements published by the Minister for compliance reporting.
- (b) The Compliance Report must include:
- (i) the extent to which the conditions of this mining lease or any provisions of the Act or the regulations applicable to activities under this mining lease, have or have not been complied with;
 - (ii) particulars of any non-compliance with any such conditions or provisions,
 - (iii) the reasons for any such non-compliance;

- (iv) any action taken, or to be taken, to prevent any recurrence, or to mitigate the effects, of that non-compliance.
- (c) The Compliance Report must be lodged with the Department annually on the grant anniversary date for the life of this mining lease.
- (d) In addition to annual lodgement under condition 4(c) above, a Compliance Report:
 - (i) must accompany any application to renew this mining lease under the Act;
 - (ii) must accompany any application to transfer this mining lease under the Act; and
 - (iii) must accompany any application to cancel, or to partially cancel, this mining lease under the Act.
- (e) Despite the submission of any Compliance Report under (c) or (d) above, the titleholder must lodge a Compliance Report with the Department at any date or dates otherwise required by the Minister.
- (f) A Compliance Report must be submitted one month prior to the expiry of this mining lease, where the licence holder is not seeking to renew or cancel this mining lease.

5. Environmental Incident Report

- (a) The lease holder must notify the Department of all:
 - (i) breaches of the conditions of this mining lease or breaches of the Act causing or threatening material harm to the environment; and
 - (ii) breaches of environmental protection legislation causing or threatening material harm to the environment (as defined in the *Protection of the Environment Operations Act 1997*),

arising in connection with significant surface disturbing activities, including mining operations, mining purposes and prospecting operations, under this mining lease. The notification must be given immediately after the lease holder becomes aware of the breach.

Note. Refer to www.resources.nsw.gov.au/environment for notification contact details.

- (b) The lease holder must submit an Environmental Incident Report to the Department within seven (7) days of all breaches referred to in condition 5(a)(i) and (ii). The Environmental Incident Report must include:
 - (i) the details of the mining lease;
 - (ii) contact details for the lease holder;
 - (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 5(a).
- (vi) a summary of all previous incidents or breaches which have occurred in the previous 12 months relating to significant surface disturbing activities, including mining operations, mining purposes and prospecting operations under this mining lease.

Note. The lease holder should have regard to any relevant Secretary's guidelines in the preparation of an Environmental Incident Report. Refer to www.resources.nsw.gov.au/environment for further details.

- (c) In addition to the requirements set out in conditions 5(a) and (b), the lease holder must immediately advise the Department of any notification made under section 148 of the *Protection of the Environment Operations Act 1997* arising in connection with significant surface disturbing activities including mining operations, mining purposes and prospecting operations, under this mining lease.

6. Resource Recovery

The lease holder must optimise recovery of the minerals that are the subject of this mining lease to the extent economically feasible.

7. Security

The lease holder 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.

The amount of the security deposit to be provided has been assessed by the Minister at **\$776,000**.

8. Cooperation Agreement

The lease holder must make every reasonable attempt, and be able to demonstrate its attempts, to enter into a cooperation agreement with the holder(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issues such as:

- access arrangements
- operational interaction procedures
- dispute resolution
- information exchange
- well location
- timing of drilling
- potential resource extraction conflicts; and
- rehabilitation issues.

Exploration Reporting

Note: Exploration Reports (Geological and Geophysical)

The lease holder must lodge reports to the satisfaction of the Minister in accordance with section 163C of the Mining Act 1992 and in accordance with clause 57 of the Mining Regulation 2010.

Reports must be prepared in accordance with Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales (Department of Trade and Investment; Regional Infrastructure and Services 2010).

SPECIAL CONDITIONS

Note: The standard conditions apply to all mining leases. The Division of Resources & Energy (DRE) reserves the right to impose special conditions, based on individual circumstances, where appropriate.

By Certificate of Registration on Change of Name Boral CSR Bricks Pty Limited ACN 168 794 821 changed its name to PGH Bricks And Pavers Pty Limited ACN 168794821 on 04. November 2016. Recorded in the Department of Resources and Geoscience this 15. August 2017 against the following titles:-

Mining Lease Application 519 (Act 1992)
Mining Lease 1730 (Act 1992)
Mining Lease 1731 (Act 1992)
Private Lands Lease 1236 (Act 1924)

Chris Berry
TITLES SERVICES
FOR SECRETARY

INSTRUMENT OF VARIATION

I, as delegate of the Minister for Resources for the State of New South Wales, under delegation dated 1 May 2017, and pursuant to Clause 12 of Schedule 1B of the *Mining Act 1992*, vary ML 1731 (1992) as follows:

Conditions 4 and 5 are varied by deleting the existing conditions and inserting instead the conditions set out below:

4. Non-Compliance Reporting

- (a) The lease holder must notify the Department upon becoming aware of any breaches of the conditions of this mining lease or breaches of the Mining Act or Regulations;
- (b) Notifications under condition 4(a) must be provided in the form specified on the Department's website within seven (7) days of the mining lease holder becoming aware of the breach.

5. Environmental Incident Report

The lease holder must provide environmental incident notifications and reports to the Secretary no later than seven (7) days after those environmental incident notifications and reports are provided to the relevant authorities under the *Protection of the Environment Operations Act 1997*.

Definitions

Environmental incident notifications and reports means any notifications and reports required to be provided to relevant authorities under Part 5.7 or Part 5.7A of the *Protection of the Environment Operations Act 1997*.

This variation is effective from 19 February 2018.

SIGNED



As delegate for the Minister for Resources

Steven Palmer
Acting Director Title Services
Dated 19 February 2018

Appendix C

EPA Licence 1808

Conditions

Environment Protection Licence

Licence - 1808

Licence Details	
Number:	1808
Anniversary Date:	01-June

Licensee
PGH BRICKS & PAVERS PTY LIMITED
LOCKED BAG 1345
NORTH RYDE NSW 1670

Premises
BRINGELLY
LOT 2 GREENDALE ROAD
BRINGELLY NSW 2556

Scheduled Activity
Ceramic works
Crushing, grinding or separating
Extractive activities
Mining for minerals

Fee Based Activity	Scale
Ceramics production	> 50000-200000 T annual production capacity
Crushing, grinding or separating	> 100000-500000 T annual processing capacity
Land-based extractive activity	> 100000-500000 T annual capacity to extract, process or store
Mining for minerals	> 100000-500000 T annual production capacity

Region
Metropolitan South - Wollongong
Level 3, NSW Govt Offices, 84 Crown Street
WOLLONGONG NSW 2500
Phone: (02) 4224 4100
Fax: (02) 4224 4110
PO Box 513
WOLLONGONG EAST NSW 2520



Environment Protection Licence

Licence - 1808

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Environment Protection Licence



Licence - 1808

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Environment Protection Licence

Licence - 1808



Information about this licence

Dictionary

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

Responsibilities of licensee

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

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

Variation of licence conditions

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

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

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

Duration of licence

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

Licence review

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

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

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

Environment Protection Licence



Licence - 1808

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

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

Transfer of licence

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

Public register and access to monitoring data

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

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

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

This licence is issued to:

PGH BRICKS & PAVERS PTY LIMITED
LOCKED BAG 1345
NORTH RYDE NSW 1670

subject to the conditions which follow.

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1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

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

Scheduled Activity	Fee Based Activity	Scale
Ceramic works	Ceramics production	> 50000 - 200000 T annual production capacity
Crushing, grinding or separating	Crushing, grinding or separating	> 100000 - 500000 T annual processing capacity
Extractive activities	Land-based extractive activity	> 100000 - 500000 T annual capacity to extract, process or store
Mining for minerals	Mining for minerals	> 100000 - 500000 T annual production capacity

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
BRINGELLY
LOT 2 GREENDALE ROAD
BRINGELLY
NSW 2556
LOT 11 DP 1125892

A3 Information supplied to the EPA

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

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

a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998;

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and

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

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

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

<i>Air</i>			
EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
2	Discharge to Air; Air Emissions Monitoring	Discharge to Air; Air Emissions Monitoring	Kiln exhaust stack as marked on map showing locations of discharge points submitted to the EPA with Licence Information Form dated 9/05/00.

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

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

<i>Water and land</i>			
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
1	Discharge and Monitoring; Discharge to waters	Discharge and Monitoring; Discharge to waters	Outlet from Dam 1 on map labelled: Site Layout Plan, Figure 2, Water Management Plan dated 10.11.15 (EPA DOC15/464889-02). Discharge point is located on the NE corner of Dam 1.
5	Discharge and Monitoring; Discharge to waters	Discharge and Monitoring; Discharge to waters	Discharge from Dam 5 on map labelled: Site Layout Plan, Figure 2, Water Management Plan dated 10.11.15 (EPA DOC15/464889-02). Discharge point is located on the NW corner of Dam 5.

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3 Limit Conditions

L1 Pollution of waters

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

L2 Load limits

L2.1 The actual load of an assessable pollutant discharged from the premises during the reporting period must not exceed the load limit specified for the assessable pollutant in the table below.

L2.2 The actual load of an assessable pollutant must be calculated in accordance with the relevant load calculation protocol.

Assessable Pollutant	Load limit (kg)
Coarse Particulates (Air)	8400.00
Fine Particulates (Air)	33300.00
Fluoride (Air)	11700.00
Nitrogen Oxides - Summer (Air)	
Nitrogen Oxides (Air)	90300.00
Sulfur Oxides (Air)	186500.00

Note: An assessable pollutant is a pollutant which affects the licence fee payable for the licence.

L3 Concentration limits

L3.1 For each monitoring/discharge point or utilisation area specified in the table below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

L3.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

L3.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table.

L3.4 Air Concentration Limits

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POINT 2

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Total Solid Particles	milligrams per cubic metre	100			
Hydrogen fluoride	milligrams per cubic metre	50			
Nitrogen Oxides	milligrams per cubic metre	2000			

L3.5 Water and/or Land Concentration Limits

POINT 1

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Oil and Grease	milligrams per litre	-	-	-	10
pH	pH	-	-	-	6.5-8.5
Turbidity	nephelometric turbidity units	-	-	-	150

POINT 5

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Conductivity	microsiemens per centimetre	-	-	-	1450
Oil and Grease	milligrams per litre	-	-	-	10
pH	pH	-	-	-	6.5-8.5
Turbidity	nephelometric turbidity units	-	-	-	150

L3.6 Exceedance of a quality limit specified in this Licence for the discharge of total suspended solids or turbidity from Point 1 or Point 5 is only permitted if the discharge from Point 1 or Point 5 occurs solely as a result of rainfall. The rainfall must be equal to, or greater than, a 90th percentile 5-day rain event.

L3.7 For the purposes of Condition L3.6, a 90th percentile 5-day rain event equates to rainfall of 50

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millimetres over a consecutive five day period.

- L3.8 For the purposes of the condition(s) above, rainfall data recorded by the meteorological station identified as the Bureau of Meteorology (BoM) *Badgerys Creek* Weather Station must be used to determine the rain event.

L4 Noise limits

- L4.1 Noise from the mobile plant must not exceed an LA10 (15 minute) noise emission criterion of 35 dB(A) at all times.

except as expressly provided by this licence.

- L4.2 Noise from the premises must not exceed an LA10 (15 minute) noise emission criterion of 35 dB(A) at all times.

except as expressly provided by this licence.

- L4.3 Noise from the premises is to be measured or computed at any point within 30 metres of the most affected residence to determine compliance with condition L4.1 and L4.2 5dB(A) must be added if the noise is tonal or impulsive in character

4 Operating Conditions

O1 Activities must be carried out in a competent manner

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

This includes:

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

O2 Maintenance of plant and equipment

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

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

O3 Dust

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

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5 Monitoring and Recording Conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

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

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

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

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

M2 Requirement to monitor concentration of pollutants discharged

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

M2.2 Air Monitoring Requirements

POINT 2

Pollutant	Units of measure	Frequency	Sampling Method
Hydrogen fluoride	milligrams per cubic metre	Yearly	TM-9
Nitrogen Oxides	milligrams per cubic metre	Yearly	TM-11
Total Solid Particles	milligrams per cubic metre	Yearly	TM-15

M2.3 Water and/ or Land Monitoring Requirements

POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
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Oil and Grease	milligrams per litre	Weekly during any discharge	Grab sample
pH	pH	Weekly during any discharge	Grab sample
Turbidity	nephelometric turbidity units	Weekly during any discharge	Grab sample

POINT 5

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	microsiemens per centimetre	<24hrs prior to discharge	Grab sample
Oil and Grease	milligrams per litre	<24hrs prior to discharge	Grab sample
pH	pH	<24hrs prior to discharge	Grab sample
Turbidity	nephelometric turbidity units	<24hrs prior to discharge	Grab sample

M3 Testing methods - concentration limits

M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:

- any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
- if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or
- if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

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

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

M4 Testing methods - load limits

Note: Division 3 of the *Protection of the Environment Operations (General) Regulation 2009* requires that monitoring of actual loads of assessable pollutants listed in L2.2 must be carried out in accordance with the relevant load calculation protocol set out for the fee-based activity classification listed in the

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Administrative Conditions of this licence.

M5 Recording of pollution complaints

- M5.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.
- M5.2 The record must include details of the following:
- a) the date and time of the complaint;
 - b) the method by which the complaint was made;
 - c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
 - d) the nature of the complaint;
 - e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
 - f) if no action was taken by the licensee, the reasons why no action was taken.
- M5.3 The record of a complaint must be kept for at least 4 years after the complaint was made.
- M5.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M6 Telephone complaints line

- M6.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.
- M6.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.
- M6.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

6 Reporting Conditions

R1 Annual return documents

- R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
- 1. a Statement of Compliance,
 - 2. a Monitoring and Complaints Summary,
 - 3. a Statement of Compliance - Licence Conditions,
 - 4. a Statement of Compliance - Load based Fee,
 - 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
 - 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and

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7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee notification that the Annual Return is due.

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

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

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

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

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

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

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

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

R1.6 Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date. The notification must specify:

- a) the assessable pollutants for which the actual load could not be calculated; and
- b) the relevant circumstances that were beyond the control of the licensee.

R1.7 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

R1.8 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

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

R2 Notification of environmental harm

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

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

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

R3 Written report

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

- a) where this licence applies to premises, an event has occurred at the premises; or
- b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

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

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

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

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

7 General Conditions

G1 Copy of licence kept at the premises or plant

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

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

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

G2 Other general conditions

G2.1 Completed Programs

Program	Description	Completed Date
PRP 1 - WATER MONITORING PROGRAM	Water monitoring program for conductivity in discharges into Thompsons Creek from Licensed Discharge Point 4.	30-May-2014
PRP 2 - WATER MANAGEMENT PLAN	Protect and reduce the impact on Thompsons Creek by preparing a Water Management Plan (WMP) which outlines options to improve on site water management and reduce pollutant loads discharged from the site to Thompsons Creek.	13-November-2015

8 Special Conditions

E1 Summary Table of Special Conditions Completed

E1.1

No.	Special Condition	Description	Completed Date
1	Water Quality	To submit a report confirming details of all surface water; process water and effluent management systems; all existing sedimentation controls; modifications required; and timetable for implementation.	1 Nov 2002
2	Surface water management options	To submit a report on the best utilisation of water from dams 5 & 6.	1 Mar 2005

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Dictionary

General Dictionary

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

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

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

Ms Nadia Kanhoush

Environment Protection Authority

(By Delegation)

Date of this edition: 10-August-2000

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End Notes

- 1 Licence varied by Change of contact details, issued on 20-Nov-2001, which came into effect on 20-Nov-2001.
- 2 Licence varied by notice 1016336, issued on 27-Jun-2002, which came into effect on 22-Jul-2002.
- 3 Licence varied by notice 1040220, issued on 23-Sep-2004, which came into effect on 18-Oct-2004.
- 4 Licence varied by notice 1043879, issued on 21-Jan-2005, which came into effect on 15-Feb-2005.
- 5 Licence varied by notice 1051526, issued on 05-Sep-2005, which came into effect on 30-Sep-2005.
- 6 Licence varied by notice 1062983, issued on 28-Aug-2006, which came into effect on 28-Aug-2006.
- 7 Licence varied by change to legislation, issued on 06-Jul-2007, which came into effect on 06-Jul-2007.
- 8 Licence varied by notice 1076143, issued on 19-Sep-2007, which came into effect on 19-Sep-2007.
- 9 Licence varied by notice 1079902, issued on 15-Nov-2007, which came into effect on 15-Nov-2007.
- 10 Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
- 11 Licence varied by change to FBA for summer pollutants, issued on 16-Jan-2009, which came into effect on 16-Jan-2009.
- 12 Licence varied by notice 1503297 issued on 23-Jan-2012
- 13 Licence varied by notice 1510257 issued on 06-Feb-2013
- 14 Licence varied by notice 1520429 issued on 20-May-2014
- 15 Licence varied by notice 1524516 issued on 28-Aug-2014
- 16 Licence transferred through application 1530191 approved on 04-May-2015 , which came into effect on 04-May-2015
- 17 Licence format updated on 04-May-2015
- 18 Licence format updated on 05-May-2015
- 19 Licence varied by notice 1536325 issued on 04-Mar-2016
- 20 Licence varied by notice 1597020 issued on 11-Aug-2020

Appendix D

Bore Licences

NSW Office of Water

Sydney South Coast Region
Locked Bag 5123
Level 11, 10 Valentine Avenue
Parramatta NSW 2124
Phone: (18) 00353104

BORE LICENSE CERTIFICATE
UNDER SECTION 115 OF THE WATER ACT, 1912

10BL605770



Boral C S R Bricks Pty Limited
P O Box 2335
Greenhills NSW 2323

LICENSE NUMBER
10BL605770
DATE LICENSE VALID FROM
28-Jan-2016
DATE LICENSE VALID TO
PERPETUITY
FEE
\$0.00

ABN 72189919072 GST NIL

LOCATION OF WORKS

<u>Portion(s) or Lot/Section/DP</u>	<u>PARISH</u>	<u>COUNTY</u>
100//1203966	Cook	Cumberland

<u>TYPE OF WORKS</u>	<u>PURPOSE(S) FOR WHICH WATER MAY BE USED</u>
Bore	Monitoring Bore

CONDITIONS APPLYING TO THIS LICENSE ARE

As shown on the attached Condition Statement

ORIGINAL

NSW Office of Water**CONDITIONS STATEMENT REFERRED TO ON
10BL605770
ISSUED UNDER PART V OF THE WATER ACT, 1912
ON 28-Jan-2016**

- (1) THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.
- (2) THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO NSW OFFICE OF WATER:-
- (A) DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).
- (B) A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.
- (C) A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.
- (D) DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.
- (3) THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.
- (4) IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-
- (A) INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.
- (B) CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.
- ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.
- (5) (A) THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.
- (B) IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.
- (6) IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-
- (A) BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR
- (B) SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.

(7) THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:-

- ANY ADJOINING PUBLIC OR CROWN ROAD;
- ANY OTHER PERSONS LAND;
- ANY CROWN LAND;
- ANY RIVER, CREEK OR WATERCOURSE;
- ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997;
- ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.

(8) WORKS USED FOR THE PURPOSE OF CONVEYING, DISTRIBUTING OR STORING WATER TAKEN BY MEANS OF THE LICENSED WORK SHALL NOT BE CONSTRUCTED OR INSTALLED SO AS TO OBSTRUCT THE REASONABLE PASSAGE OF FLOOD WATERS FLOWING INTO OR FROM A RIVER.

(9) IF THE BORE AUTHORISED BY THIS LICENSE IS LINED WITH STEEL OR PLASTIC CASING THE INSIDE DIAMETER OF THAT CASING SHALL NOT EXCEED 220 MM.

(10) WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.

(11) SUBJECT TO CONDITION (12) THE LICENSEE SHALL WITHIN TWO MONTHS OF THE DATE OF COMPLETION OF THE BORE AUTHORISED BY THE LICENSE,

(1) BACKFILL IT WITH CLAY OR CEMENT TO GROUND LEVEL, AFTER WITHDRAWING ANY CASING(LINING), OR:-

(2) RENDER IT INEFFECTIVE BY ANY OTHER MEANS ACCEPTABLE TO THE DEPARTMENT.

(12) CONDITION (11) SHALL HAVE NO FORCE OR EFFECT IF:-

(1) AT THE RELEVANT TIME THERE IS WITH NSW OFFICE OF WATER, AN APPLICATION IN RESPECT OF WHICH THE DEPARTMENT HAS NOT MADE A DECISION TO CONVERT THE GROUNDWATER INVESTIGATION BORE INTO A PRODUCTION BORE; OR

(2) THE LICENSEE HAS COMPLETED THE BORE FOR THE PURPOSE OF MEASURING WATER LEVELS OR WATER QUALITY BY THE ADDITION OF CASING WITH A DIAMETER NOT EXCEEDING 220MM.

End Of Conditions

Appendix E

Surface Water Licences

BOX 1W
(AP671375)



NEW SOUTH WALES

CERTIFICATE OF TITLE

WATER MANAGEMENT ACT, 2000



WAL TITLE REFERENCE	
WAL25987	
EDITION	DATE OF ISSUE
3	22/11/2019
CERTIFICATE AUTHENTICATION CODE	
D4LF-3P-5JY6	



This certificate is issued under s87B of the Water Management Act, 2000.

WARNING NOTE: INFORMATION ON THIS REGISTER IS NOT GUARANTEED

TENURE TYPE: CONTINUING

HOLDER(S)

PGH BRICKS & PAVERS PTY LIMITED

(T AP671375)

ENCUMBRANCES

1. TERM TRANSFER: NIL

ACCESS LICENCE DETAILS

CATEGORY: UNREGULATED RIVER

SHARE COMPONENT:

SHARE - 152.5 UNITS

WATER SOURCE - HAWKESBURY AND LOWER NEPEAN RIVERS WATER SOURCE

WATER SHARING PLAN - GREATER METROPOLITAN REGION UNREGULATED RIVER
WATER SOURCES 2011

EXTRACTION COMPONENT:

TIMES/RATES/CIRCUMSTANCES - SUBJECT TO THE CONDITIONS OF THE WATER
ACCESS LICENCE

EXTRACTION FROM - RIVER, LAKE OR SURFACE WATER RUNOFF

EXTRACTION ZONE - UPPER SOUTH CREEK MANAGEMENT ZONE

NOMINATED WORKS:

WORK APPROVAL NUMBER(S) - 10CA104630

INTERSTATE TAGGING ZONE - NIL

CONDITIONS

LICENCE CONDITIONS FORM A PART OF THIS LICENCE AND AFFECT THE SHARE
AND EXTRACTION COMPONENTS. CONDITION STATEMENTS ARE AVAILABLE FROM
WATERSW

NOTES

A WATER LICENCE INFORMATION SHEET IS AVAILABLE FROM THE WATERSW
WEBSITE AND SHOULD BE REFERRED TO IN INTERPRETING THIS LICENCE.
WATERSW PHONE 1300 662 077, EMAIL CUSTOMER.HELPDESK@WATERSW.COM.AU
LICENCE REFERENCE NUMBER: 10AL104629
PREVIOUS WATER ACT LICENCE NUMBER(S): 10SL037783.

**** END OF CERTIFICATE ****

ANY ATTEMPT TO ALTER THIS CERTIFICATE COULD RESULT IN HEAVY FINES OR IMPRISONMENT (S.141 REAL PROPERTY ACT).

BOX 1W
(AP671373)

NEW SOUTH WALES

CERTIFICATE OF TITLE

WATER MANAGEMENT ACT, 2000



WAL TITLE REFERENCE	
WAL26257	
EDITION	DATE OF ISSUE
3	22/11/2019
CERTIFICATE AUTHENTICATION CODE	
SC3Z-RM-HTN9	



This certificate is issued under s87B of the Water Management Act, 2000.

WARNING NOTE: INFORMATION ON THIS REGISTER IS NOT GUARANTEED

TENURE TYPE: SPECIFIC PURPOSE

HOLDER(S)

PGH BRICKS & PAVERS PTY LIMITED

(T AP671373)

ENCUMBRANCES

1. TERM TRANSFER: NIL
2. A SECURITY INTEREST (MORTGAGE OR CHARGE) CANNOT BE REGISTERED ON THIS LICENCE. SEE S71D(2) WATER MANAGEMENT ACT 2000.

ACCESS LICENCE DETAILS

CATEGORY: DOMESTIC AND STOCK

SHARE COMPONENT:

SHARE - 6.5 MEGALITRES PER YEAR
WATER SOURCE - HAWKESBURY AND LOWER NEPEAN RIVERS WATER SOURCE
WATER SHARING PLAN - GREATER METROPOLITAN REGION UNREGULATED RIVER
WATER SOURCES 2011

EXTRACTION COMPONENT:

TIMES/RATES/CIRCUMSTANCES - SUBJECT TO THE CONDITIONS OF THE WATER
ACCESS LICENCE
EXTRACTION FROM - RIVER, LAKE OR SURFACE WATER RUNOFF
EXTRACTION ZONE - UPPER SOUTH CREEK MANAGEMENT ZONE

NOMINATED WORKS:

WORK APPROVAL NUMBER(S) - 10CA104630
INTERSTATE TAGGING ZONE - NIL

CONDITIONS

LICENCE CONDITIONS FORM A PART OF THIS LICENCE AND AFFECT THE SHARE
AND EXTRACTION COMPONENTS. CONDITION STATEMENTS ARE AVAILABLE FROM
WATERSW

NOTES

A WATER LICENCE INFORMATION SHEET IS AVAILABLE FROM THE WATERSW
WEBSITE AND SHOULD BE REFERRED TO IN INTERPRETING THIS LICENCE.
WATERSW PHONE 1300 662 077, EMAIL CUSTOMER.HELPDESK@WATERSW.COM.AU
LICENCE REFERENCE NUMBER: 10AL104628
PREVIOUS WATER ACT LICENCE NUMBER(S): 10SL037783.

**** END OF CERTIFICATE ****

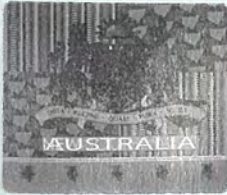
ANY ATTEMPT TO ALTER THIS CERTIFICATE COULD RESULT IN HEAVY FINES OR IMPRISONMENT (S.141 REAL PROPERTY ACT).

BOX 1W
(AP671374)

NEW SOUTH WALES

CERTIFICATE OF TITLE

WATER MANAGEMENT ACT, 2000



WAL TITLE REFERENCE	
WAL26259	
EDITION	DATE OF ISSUE
3	22/11/2019
CERTIFICATE AUTHENTICATION CODE	
SGJY-DX-NGFD	



This certificate is issued under s87B of the Water Management Act, 2000.

WARNING NOTE: INFORMATION ON THIS REGISTER IS NOT GUARANTEED

TENURE TYPE: CONTINUING

HOLDER(S)

PGH BRICKS & PAVERS PTY LIMITED

(T AP671374)

ENCUMBRANCES

1. TERM TRANSFER: NIL

ACCESS LICENCE DETAILS

CATEGORY: UNREGULATED RIVER

SHARE COMPONENT:

SHARE - 150 UNITS

WATER SOURCE - HAWKESBURY AND LOWER NEPEAN RIVERS WATER SOURCE

WATER SHARING PLAN - GREATER METROPOLITAN REGION UNREGULATED RIVER

WATER SOURCES 2011

EXTRACTION COMPONENT:

TIMES/RATES/CIRCUMSTANCES - SUBJECT TO THE CONDITIONS OF THE WATER
ACCESS LICENCE

EXTRACTION FROM - RIVER, LAKE OR SURFACE WATER RUNOFF

EXTRACTION ZONE - UPPER SOUTH CREEK MANAGEMENT ZONE

NOMINATED WORKS:

WORK APPROVAL NUMBER(S) - 10CA104657

INTERSTATE TAGGING ZONE - NIL

CONDITIONS

LICENCE CONDITIONS FORM A PART OF THIS LICENCE AND AFFECT THE SHARE
AND EXTRACTION COMPONENTS. CONDITION STATEMENTS ARE AVAILABLE FROM
WATERSW

NOTES

A WATER LICENCE INFORMATION SHEET IS AVAILABLE FROM THE WATERSW
WEBSITE AND SHOULD BE REFERRED TO IN INTERPRETING THIS LICENCE.
WATERSW PHONE 1300 662 077, EMAIL CUSTOMER.HELPDESK@WATERSW.COM.AU
LICENCE REFERENCE NUMBER: 10AL104656
PREVIOUS WATER ACT LICENCE NUMBER(S): 10SL038385.

**** END OF CERTIFICATE ****

ANY ATTEMPT TO ALTER THIS CERTIFICATE COULD RESULT IN HEAVY FINES OR IMPRISONMENT (S.141 REAL PROPERTY ACT).

Appendix F Conditions Compliance Worksheet

Bringelly Brickworks Extension Project

Applicable Period: 1 July 2021 to 30 June 2022

SSD Conditions: SSD_5684 Mod 1

Compliant

Non-Compliant Non-compliance

Not Triggered A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken, therefore an assessment of compliance is not relevant.

Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments
2		ADMINISTRATIVE CONDITIONS						
2	1	OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT In addition to meeting the specific performance criteria established under this consent, the Applicant 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 development.	At all times	Annual review of performance including management policies, strategys and plans	Annual Review	Compliant	The whole document	
2		TERMS OF CONSENT						
2	2	The Applicant must: (a) carry out the development generally in accordance with the EIS and SEE (Mod 1); and (b) the conditions of this consent.	At all times	Annual review of performance including management policies, strategys and plans	Annual Review, EMS, Management Plans, MOP and ARR.	Compliant	The whole document	
2	3	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.	At all times	Not applicable	Not applicable	Compliant	-	
2	4	The Applicant must comply with any reasonable requirement/s of the Secretary arising the Department's assessment of: (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent; (b) any reports, reviews or audits commissioned by the Department regarding compliance with this consent; or (c) the implementation of any actions or measures contained in these documents.	At all times	Annual review of performance including management policies, strategys and plans	Annual Review	Compliant	-	All comments from DPIE have been addressed
2		LIMITS ON CONSENT						
2		Quarrying and Brick Making Operations						
2	5	The Applicant may carry out quarrying operations and brick making operations from the date of commencement of development under this consent until 1 March 2045. Note: Under this consent, the Applicant is required to rehabilitate the site and carry out additional undertakings to the satisfaction of the Secretary. Consequently, this consent will continue to apply in all other respects other than the right to conduct quarrying operations until the rehabilitation of the site and those undertakings have been carried out to a satisfactory standard.	At all times	Not applicable	Not applicable	Compliant		Operations on the site are currently being undertaken.
2		Production Limits						
2	6	The Applicant must not: (a) extract more than 200,000 tonnes of clay/shale from the site in any calendar year; (b) produce more than 263,500 tonnes of bricks at the site in any calendar year; (c) carry out quarrying operations beyond 46 m AHD; and (d) receive more than 321,000 tonnes of raw materials required for brick making to the site in any calendar year	Calendar year	Review weighbridge records, sales records, mining records and survey data	Weighbridge records, sales records, mining records and survey data	Compliant		For the reporting period 1/7/2021 to 30/6/2022 there was 24,300 (<200,000) tonnes mined. There were 178,042 (<263,500) tonnes of bricks produced. Survey data indicates there is no mining below 46m AHD. 176,750 (<321,000) tonnes of raw material was received on site.
2		Transportation Limits						
2	7	The Applicant must not: (a) transport more than 263,500 tonnes of bricks from the site in a calendar year; (b) receive more than 90 trucks to the site per day or more than 18 trucks per hour; and (c) dispatch more than 90 trucks from the site per day or more than 18 trucks per hour.	Calendar year	Review weighbridge records, sales records.	Weighbridge records, sales records.	Compliant		There was 178,042 tonnes of bricks produced. Max daily trucks recorded per day was 90 on the 23/9/21 Max hourly trucks counted was 18 on the 22/9/21, 9/6/21, and 22/6/21.
2		NOTIFICATION OF COMMENCEMENT						
2	8	Prior to commencing development under this consent, the Applicant must notify the Department in writing of the date on which it will commence development permitted under this consent.	Prior to undertaking quarrying operations in the extension area	Correspondence	Correspondence	Compliant		Correspondence sent to DPIE. Date of commencement is 24/2/2020.
2		SURRENDER OF EXISTING DEVELOPMENT CONSENT						
2	9	Within 4 months of commencing development under this consent, the Applicant must surrender the development consent (DA 91/1194) for existing operations on the site in accordance with Section 104A of the EP&A Act. Following the commencement of development under this consent, the conditions of this consent (including any notes) shall prevail to the extent of any inconsistency with the conditions of the existing development consent (DA 91/1194).	Within 4 months of commencing development	Correspondence	Correspondence	Compliant		Correspondence dated 28/7/2020 sent to DPIE.
2		STRUCTURAL ADEQUACY						
2	10	The Applicant must ensure that any new buildings and structures, and any alterations, or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. Notes: - Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works. - Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.	Prior to occupation	Review certificates of construction and occupation	Certificates of construction and occupation	Compliant		No construction or alterations have been undertaken.

Bringelly Brickworks Extension Project

Applicable Period: 1 July 2021 to 30 June 2022

SSD Conditions: SSD_5684 Mod 1

Compliant

Non-Compliant Non-compliance

Not Triggered A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken, therefore an assessment of compliance is not relevant.

Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments
2		DEMOLITION						
2	11	The Applicant must ensure that all demolition work on site is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.	As required	Review of demolition documentation	Demolition documentation	Compliant		No demolition has been undertaken on the site.
2		PROTECTION OF PUBLIC INFRASTRUCTURE						
2	12	The Applicant must: (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development. Note: This condition does not apply to any damage to roads caused as a result of general road usage.	As required	Not applicable	Not applicable	Not Triggered		Not required
		OPERATION OF PLANT AND EQUIPMENT						
2	13	The Applicant must ensure that all plant and equipment used on site or any monitoring equipment used off site for monitoring the performance of the development is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	As required	As per individual management plans and equipment maintenance records	As per individual management plans, calibration reports, equipment service records	Compliant		Plant and Equipment on-site is regularly serviced. Monitoring equipment off-site (noise) is maintained by contractors and calibration certificates are supplied with reports.
2		UPDATING AND STAGING STRATEGIES, PLANS OR PROGRAMS						
2	14	With the approval of the Secretary, the Applicant may submit any strategies, plans or programs required by this consent on a progressive basis. To ensure the strategies, plans or programs under the conditions of this consent are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval. With the agreement of the Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this consent. Notes: - While any strategy, plan or program may be submitted on a progressive basis, the Applicant must ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times. - If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage 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.	As required	Assess if any revision of strategies, plans or programs have been undertaken	Approval correspondence from the Secretary.	Compliant		
2	15	Until they are replaced by an equivalent strategy, plan or program approved under this consent, the Applicant must implement the existing strategies, plans or programs for the site that have been approved under DA 91/1194.	Until Mod 1 has commenced	Approvals retained	ARR	Compliant		
2		IDENTIFICATION OF APPROVED LIMITS OF EXTRACTION						
2	16	Prior to undertaking quarrying operations in the extension area, the Applicant must: (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction within the development area; and (b) submit a survey plan of these boundaries with applicable GPS coordinates to the Secretary.	Prior to undertaking quarrying operations in the extension area	Survey	Survey plans with co-ordinates have been supplied to DPIE in the EMS submitted for approval 19/09/2017.	Compliant		Mine lease survey plan has been undertaken for the mine lease. The ML boundaries are pegged. The original DA extraction limits have been pegged. Prior to commencing extraction in new cells, the limits of extraction will be pegged.
2	17	While quarrying operations are being carried out, the Applicant must ensure that these boundaries are clearly marked at all times to allow operating staff and inspecting officers to clearly identify the approved limits of extraction.	At all times	Visual observation	Photography and site inspection records	Compliant		Extraction limits clearly pegged
2		PRODUCTION DATA						
2	18	The Applicant must: (a) provide annual quarry production data to DRE using the standard form for that purpose; and (b) include a copy of this data in the Annual Review (see condition 4 of schedule 5).	By 31st October each year for year ending 30th of June.	Maintenance of mining records	Mining records and DRE standard form	Compliant	Appendix G	Production data included in this report and results submitted to DRE each year.
2		DEVELOPER CONTRIBUTIONS						
2	19	The Applicant must pay Camden Council road maintenance contributions of \$0.0811 for every tonne of material transported to and from the site, indexed to CPI. Each payment must be: (a) paid to Council at the end of each calendar year; and (b) based on weighbridge records of all supplementary brick making materials transported to the site and bricks and spoil transported from the site. Note: If the parties are not able to agree on any aspect of the maintenance contributions, either party may refer the matter to the Secretary for resolution.	by 31st December each year.	Council receipts	Council receipts	Compliant		Invoices from Camden Council received and paid.

Bringelly Brickworks Extension Project
Applicable Period: 1 July 2021 to 30 June 2022

SSD Conditions: SSD_5684 Mod 1

Compliant

Non-Compliant Non-compliance

Not Triggered A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken, therefore an assessment of compliance is not relevant.

Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments																															
3		ENVIRONMENTAL PERFORMANCE CONDITIONS																																					
3		Hours of Operation																																					
3	1	The Applicant must comply with the operating hours set out in Table 1.	Daily	Site inductions, employee hours	Employee hours logged in Kronus system	Compliant																																	
		<p><i>Table 1: Operating Hours</i></p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>Quarrying operations</td> <td>6am to 6pm, Monday to Friday</td> </tr> <tr> <td>Deliveries</td> <td>6am to 1pm, Saturday</td> </tr> <tr> <td>Dispatch of finished bricks</td> <td>No activities on Sundays or Public Holidays</td> </tr> <tr> <td>Brick making operations (except dispatch of finished bricks)</td> <td>24 hours a day, 7 days a week</td> </tr> <tr> <td>Construction activities</td> <td>7am to 6pm, Monday to Friday 8am to 1pm, Saturday No construction to be undertaken on Sundays or Public Holidays</td> </tr> </tbody> </table>	Activity	Operating Hours	Quarrying operations	6am to 6pm, Monday to Friday	Deliveries	6am to 1pm, Saturday	Dispatch of finished bricks	No activities on Sundays or Public Holidays	Brick making operations (except dispatch of finished bricks)	24 hours a day, 7 days a week	Construction activities	7am to 6pm, Monday to Friday 8am to 1pm, Saturday No construction to be undertaken on Sundays or Public Holidays																									
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3		NOISE																																					
3		Noise Criteria																																					
3	2	<p>The Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 2 at any residence on privately-owned land.</p> <p>Notes:</p> <ul style="list-style-type: none"> - To locate the receivers referred to in Table 2 refer to Appendix 3. - After the first review on any EPL granted for this development under Section 78 of the POEO Act, nothing in this consent prevents the EPA from imposing stricter noise limits on the quarrying operations on site under the EPL. Appendix 5 sets out the metrological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria. <p>However, these criteria do not apply if the Applicant has a written agreement with the relevant landowner/s to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.</p>	As per Noise Management Plan	NSW Industrial Noise Policy	Noise monitoring results	Compliant	Section 7.5	Noise monitoring has been undertaken for the periods ending December 2021, March 2022 and June 2022. Site attributable contributions were estimated to satisfy the relevant noise criteria at all locations during the assessments.																															
		<p><i>Table 2: Noise criteria dB(A)</i></p> <table border="1"> <thead> <tr> <th rowspan="2">Activity</th> <th rowspan="2">Receiver</th> <th colspan="2">Day/Evening/Shoulder</th> <th colspan="2">Night</th> </tr> <tr> <th>L_{Aeq(15min)}</th> <th>L_{Aeq(15min)}</th> <th>L_{Aeq(15min)}</th> <th>L_{A(1hr)}</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Brick making and quarrying</td> <td>R1, R2</td> <td>47</td> <td></td> <td rowspan="4">Not Applicable</td> <td rowspan="4"></td> </tr> <tr> <td>R3, R4, R14</td> <td>48</td> <td></td> </tr> <tr> <td>R15, R17</td> <td>45</td> <td></td> </tr> <tr> <td>All other receivers</td> <td>44</td> <td></td> </tr> <tr> <td>Brick making</td> <td>All receivers</td> <td>44</td> <td>43</td> <td>53</td> <td></td> </tr> </tbody> </table>	Activity	Receiver	Day/Evening/Shoulder		Night		L _{Aeq(15min)}	L _{Aeq(15min)}	L _{Aeq(15min)}	L _{A(1hr)}	Brick making and quarrying	R1, R2	47		Not Applicable		R3, R4, R14	48		R15, R17	45		All other receivers	44		Brick making	All receivers	44	43	53							
Activity	Receiver	Day/Evening/Shoulder			Night																																		
		L _{Aeq(15min)}	L _{Aeq(15min)}	L _{Aeq(15min)}	L _{A(1hr)}																																		
Brick making and quarrying	R1, R2	47		Not Applicable																																			
	R3, R4, R14	48																																					
	R15, R17	45																																					
	All other receivers	44																																					
Brick making	All receivers	44	43	53																																			
3		Construction Noise																																					
3	3	<p>The Applicant must manage noise generated during the construction of the new site access road and associated road alignment works, and the noise bund adjacent to Greendale Road, in accordance with the guidelines specified in Table 2 of the Interim Construction Noise Guideline.</p> <p>Note: Management guidelines are applicable to receivers 3 and 4, shown in Appendix 3.</p>	During Construction	Interim Construction Noise Guideline	Noise monitoring results	Not Triggered	Section 7.5	Noise monitoring to be undertaken prior to commencing works under this development.																															
3		Noise Bunds																																					
3	4	The Applicant must ensure that the noise bund adjacent to the northern boundary of the extraction area is constructed prior to the commencement of quarrying operations in the extension area.	Prior to undertaking quarrying operations in the extension area	NSW Road Noise Policy	Visual observation and photographic evidence	Not Triggered	Section 7.5																																
3	4a	The Applicant must ensure that the noise bund adjacent to Greendale Road is constructed prior to the commencement of brick making operations.	Prior to commencement of brickmaking operations	NSW Road Noise Policy	Visual observation and photographic evidence	Not Triggered	Section 7.5																																
3		Operating Conditions																																					
3	5	<p>The Applicant must:</p> <p>(a) implement all reasonable and feasible mitigation measures to minimise construction, operational and road noise of the development;</p> <p>(b) implement periods of respite during the construction of the new site access road and associated road alignment works, and the noise bund adjacent to Greendale Road;</p> <p>(c) regularly assess noise monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the noise criteria in this consent;</p> <p>(d) maintain the effectiveness of noise suppression equipment on plant and equipment on site;</p> <p>(e) minimise the noise impacts of the development during meteorological conditions under which the noise criteria in this consent do not apply (see Appendix 5); and</p> <p>(f) carry out regular noise monitoring to determine whether the development is complying with the relevant conditions of this consent, to the satisfaction of the Secretary.</p>	At all times	Deploy Noise Management Plan. Scheduled equipment inspections	Annual review, equipment service records and noise monitoring results	Compliant	Section 7.5																																
			During Construction	Interim Construction Noise Guideline	Noise monitoring results.	Not Triggered		Record construction and respite hours when commenced.																															
			Quarterly and as required	NSW Industrial Noise Policy	Noise monitoring results. Annual Review. Absence of complaints.	Compliant	Section 7.5 and Appendix N																																
			At all times	Deploy Noise Management Plan. Scheduled equipment inspections	Annual review, equipment service records and noise monitoring results. Absence of complaints.	Compliant	Section 7.5																																
			During the applicable periods of meteorological conditions	NSW Industrial Noise Policy Meteorological monitoring	Noise monitoring results. Meteorological data. Absence of complaints.	Not Triggered		No adverse meteorological conditions recorded																															
			Quarterly	NSW Industrial Noise Policy	Noise monitoring results	Compliant	Section 7.5 and Appendix N																																

Bringelly Brickworks Extension Project
Applicable Period: 1 July 2021 to 30 June 2022

SSD Conditions: SSD_5684 Mod 1

Compliant

Non-Compliant Non-compliance

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments
3		Noise Management Plan						
3	6	The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:	Prior to undertaking quarrying operations in the extension area	Correspondence	Correspondence	Compliant	Section 7.5	Version 7 approved 16/5/22
		(a) be prepared in consultation with the EPA;						
		(b) be submitted to the Secretary for approval prior to the commencement of development under this consent, unless the Secretary agrees otherwise;	Prior to undertaking quarrying operations in the extension area	Correspondence	Correspondence	Compliant	Section 7.5	
		(c) describe the reasonable and feasible mitigation measures that would be implemented to ensure: - construction noise is minimised; - compliance with the relevant noise criteria and operating conditions in this consent; - best management practice is being employed; and - the noise impacts of the development are minimised during meteorological conditions under which the noise criteria in this consent do not apply;	Prior to undertaking quarrying operations in the extension area	Not applicable	Noise Management Plan	Compliant	Section 7.5	
		(d) describe the proposed noise management system on site; and	Prior to undertaking quarrying operations in the extension area	Not applicable	Noise Management Plan	Compliant	Section 7.5	
		(e) include a quarterly (or as otherwise agreed with the Secretary) noise monitoring program that: - uses attended monitoring to evaluate the compliance of the development against the noise criteria in this consent; - evaluates and reports on the effectiveness of the noise management system and the best practice noise management measures; and - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.	Prior to undertaking quarrying operations in the extension area	Not applicable	Noise Management Plan	Compliant	Section 7.5	
		The Applicant must implement the approved management plan as approved from time to time by the Secretary.	Prior to undertaking quarrying operations in the extension area	Not applicable	Noise Management Plan. Annual Review.	Compliant	Section 7.5	

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments																																											
3		AIR QUALITY																																																	
3		Air Quality Criteria																																																	
3	7	The Applicant must implement all reasonable and feasible avoidance and mitigation measures so that particulate matter emissions generated by the development do not exceed the criteria in Tables 3 to 6 at any residence on privately-owned land. <table border="1"> <caption>Table 3: Long-Term Criteria for Particulate Matter</caption> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulates (TSP)</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a 30 µg/m³</td> </tr> </tbody> </table> <table border="1"> <caption>Table 4: Short-Term Criteria for Particulate Matter</caption> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a 50 µg/m³</td> </tr> </tbody> </table> <table border="1"> <caption>Table 5: Long-Term Criteria for Deposited Dust</caption> <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>^a 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table> <table border="1"> <caption>Table 6: Long and Short-Term Stack Emissions</caption> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Sulphur Dioxide</td> <td>10-minute</td> <td>712 µg/m³</td> </tr> <tr> <td>1-Hour</td> <td>570 µg/m³</td> </tr> <tr> <td>24-Hour</td> <td>228 µg/m³</td> </tr> <tr> <td rowspan="2">Nitrogen Dioxide</td> <td>Annual</td> <td>80 µg/m³</td> </tr> <tr> <td>1-Hour</td> <td>246 µg/m³</td> </tr> <tr> <td rowspan="2">Hydrogen Chloride</td> <td>Annual</td> <td>82 µg/m³</td> </tr> <tr> <td>1 hour</td> <td>0.14 mg/m³</td> </tr> </tbody> </table> Notes to Tables 3-6: • ^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources). • ^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own). • ^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method. • ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Secretary in consultation with EPA.	Pollutant	Averaging period	^d Criterion	Total suspended particulates (TSP)	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging period	^d Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³	Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level	^c Deposited dust	Annual	^a 2 g/m ² /month	^a 4 g/m ² /month	Pollutant	Averaging period	^d Criterion	Sulphur Dioxide	10-minute	712 µg/m ³	1-Hour	570 µg/m ³	24-Hour	228 µg/m ³	Nitrogen Dioxide	Annual	80 µg/m ³	1-Hour	246 µg/m ³	Hydrogen Chloride	Annual	82 µg/m ³	1 hour	0.14 mg/m ³	At all times	EPA Approved methods for the Sampling and Analysis of Air Pollutants in NSW	Air quality monitoring results	Compliant	Section 7.2	HVAS has been installed and monitoring commenced in February 2020. The PM10 results are included in the AR and are below the criteria for the annual average and 24 hour average for this report period. The annual average for all dust gauges was below the criteria. Stack testing results were within the EPL conditions. No monitoring of residences was undertaken however the stack emissions are below the input data which produced acceptable results in the EIS AusPlume modelling.
Pollutant	Averaging period	^d Criterion																																																	
Total suspended particulates (TSP)	Annual	^a 90 µg/m ³																																																	
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	1 hour	0.14 mg/m ³																																																	
3		Operating Conditions																																																	
3	8	The Applicant must: (a) implement all reasonable and feasible measures to minimise the stack and dust emissions of the development; (b) minimise surface disturbance and maximise progressive rehabilitation; (c) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note (d) to Tables 3-6 above); and (d) monitor and report on compliance with the relevant air quality conditions in this consent; to the satisfaction of the Secretary.	At all times At all times During adverse meteorological conditions Annually	Not applicable Visual observation Meteorological data. Visual observation. EPA Approved methods for the Sampling and Analysis of Air Pollutants in NSW	Air quality monitoring results Annual Review Photographic evidence Air quality monitoring results. Absence of complaints. Air quality monitoring results. Absence of complaints.	Compliant Compliant Compliant Compliant	Section 7.2 Section 8 Section 7.2 Section 7.2	There have been no extraordinary events, or adverse weather conditions recorded. Monitoring results will be submitted and satisfaction from the Secretary sought with the submission of the AR.																																											
3		Air Quality Management Plan																																																	
3	9	The Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with the EPA; (b) be submitted to the Secretary for approval prior to the commencement of development under this consent, unless the Secretary agrees otherwise; (c) describe the measures that would be implemented to ensure: - compliance with the air quality criteria and operating conditions under this consent; - best practice management is being employed; and - the air quality impacts of the development are minimised during adverse meteorological conditions; (d) describe the air quality management system; and (e) include an air quality monitoring program that: - evaluates and reports on: -- the effectiveness of the air quality management system; and -- compliance with the air quality criteria and operating conditions; and - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents. The Applicant must implement the approved management plan as approved from time to time by the Secretary.	Prior to undertaking quarrying operations in the extension area Prior to undertaking quarrying operations in the extension area Prior to undertaking quarrying operations in the extension area Prior to undertaking quarrying operations in the extension area Prior to undertaking quarrying operations in the extension area Prior to undertaking quarrying operations in the extension area	Correspondence Correspondence Not applicable Not applicable Not applicable	Correspondence Correspondence Air Quality Management Plan Air Quality Management Plan Air Quality Management Plan	Compliant Compliant Compliant Compliant Compliant	Version 5 approved 12/12/19																																												
3		METEOROLOGICAL MONITORING																																																	

Bringelly Brickworks Extension Project
Applicable Period: 1 July 2021 to 30 June 2022

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Compliant

Non Compliant Non-compliance

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments
3	10	For the life of the development, the Applicant must ensure that there is a suitable meteorological station operating in the vicinity of the site that: (a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and (b) is capable of continuous measurement of stability class, in accordance with the NSW Industrial Noise Policy, or as otherwise approved by EPA.	Prior to undertaking quarrying operations in the extension area	EPA Approved methods for the Sampling and Analysis of Air Pollutants in NSW - USEPA (2000) EPA 454/R-99-005 NSW Industrial Noise Policy.	Meteorological monitoring results.	Compliant	Section 7.1	
3		TRANSPORT						
		Monitoring of Product Transport						
3	11	The Applicant must keep accurate records of the: (a) tonnage of bricks transported from the site (monthly and annually); (b) amount of raw material imported to the site (monthly and annually); and (c) tonnage of each type of raw materials imported to the site (monthly and annually); and provide the Secretary with a summary of this information upon request.	Annually	Review of weighbridge records.	Weighbridge records	Compliant	Section 6	
		Parking						
3	12	The Applicant must provide sufficient parking on-site for all development-related traffic, in accordance with Camden Council's parking codes, to the satisfaction of the Secretary.	Prior to undertaking quarrying operations in the extension area	Visual observation. Camden Council parking codes.	Photography and site inspection records	Compliant		
3		Operating Conditions						
3	13	The Applicant must ensure that: (a) all development-related heavy vehicles enter and exit the site in a forward direction;	At all times	Transport Management Plan	Weighbridge operator/staff observations	Compliant	Drivers Code of Conduct Appendix H	
		(b) all laden vehicles entering or exiting the site have their loads covered (with the exception of vehicles carrying bricks);	At all times	Transport Management Plan	Weighbridge operator/staff observations	Compliant	Drivers Code of Conduct Appendix H	
		(c) all laden vehicles that have accessed the extraction and/or stockpile areas are cleaned of sand and other material that may fall on the road, before leaving the site;	At all times	Transport Management Plan	Weighbridge operator/staff observations	Compliant	Drivers Code of Conduct Appendix H	
		(d) all heavy vehicles exiting the site travel east of the site along Greendale Road to The Northern Road and/or Bringelly Road;	At all times	Transport Management Plan	Weighbridge operator/staff observations	Compliant	Drivers Code of Conduct Appendix H	
		(e) the dispatch of laden trucks is avoided during the peak drop-off and pick-up times at the Bringelly Public School to the greatest extent practicable, particularly prior to the upgrade of the Greendale Road/Bringelly Road intersection by RMS; and	At all times	Transport Management Plan	Weighbridge operator/staff observations	Compliant	Drivers Code of Conduct Appendix H	
		(f) no trucks queue at the entrance to the site before 6am.	At all times	Transport Management Plan	Weighbridge operator/staff observations	Compliant	Drivers Code of Conduct Appendix H	
		Access Road Intersection Construction						
3	14	Within 12 months of commencing development under this consent, unless otherwise agreed with the Secretary, the Applicant must design and construct the new site access road intersection with Greendale Road in accordance with applicable AUSTROADS standards, to the satisfaction of Camden Council. The Applicant must notify the Secretary in writing within 30 days of obtaining Council approval. Within 7 days of completing construction and the new site access road being operational, the existing site access road must be permanently closed.	Within 12 month of commencing development	Visual observation	Correspondence	Not Triggered	Section 14	Extended to 18/08/2022

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments
3		Transport Management Plan						
3	15	The Applicant must prepare a Transport Management Plan for the development to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with RMS, Camden Council, Liverpool City Council and Bringelly Public School, and be submitted to the Secretary for approval prior to the commencement of development under this consent, unless the Secretary agrees otherwise;	Prior to undertaking quarrying operations in the extension area	Not applicable	Transport Management Plan	Compliant		Version 1 approved 12/12/19
		(b) describe the measures that would be implemented to ensure compliance with the transport operating conditions under this consent, including specific measures to avoid the arrival and dispatch of laden trucks from the site during the peak drop-off and pick-up times at the Bringelly Public School;	Prior to undertaking quarrying operations in the extension area	Not applicable	Transport Management Plan	Compliant		
		(c) include a Code of Conduct for heavy vehicle drivers that addresses: - travelling speeds; - procedures to minimise noise including a regular Truck Noise Auditing Program; - procedures to minimise diesel exhaust emissions; - instructions to avoid grouping or convoying of trucks; - procedures to ensure that drivers adhere to the designated haulage routes and the haulage hours permitted under this consent; - instructions to drivers not to overtake each other on the haulage route, as far as practicable, and to maintain appropriate distances between vehicles; and - instruction to drivers to be properly safety conscious and to strictly obey all traffic regulations, particularly in relation to school zones along Greendale Road; and	Prior to undertaking quarrying operations in the extension area	Not applicable	Transport Management Plan	Compliant		
		(d) describe the measures that would be put in place to ensure compliance with the drivers' Code of Conduct and include a program to monitor the effectiveness of the implementation of these measures.	Prior to undertaking quarrying operations in the extension area	Not applicable	Transport Management Plan	Compliant		
		The Applicant must implement the approved management plan as approved from time to time by the Secretary.	Prior to undertaking quarrying operations in the extension area	Not applicable	Transport Management Plan	Compliant		
3		SOIL AND WATER						
		Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the development, including in respect of the extraction and/or interception of groundwater.	Prior to extraction or interception of groundwater	Review of water licences held	Surface Water Licences WAL26259 (150ML), WAL26257 (6.5ML) and WAL25987 (152.5ML) are current. Monitoring Bore licence 10BL605770 held in perpetuity. Monitoring Bore licence 10BL605629 held but bores are destroyed.	Compliant	Section 5.5	
		Water Supply						
3	16	The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations under the consent to match its available water supply to the satisfaction of the Secretary.	At all times	Water balance review	Water Balance	Compliant		Water balance in approved WMP
3		Water Discharges						
3	17	The Applicant must comply with the discharge limits in any EPL or with Section 120 of the POEO Act.	On discharge	EPL approved water sampling and analysis methods. Surface Water Management Plan.	EPL return. Annual Review.	Compliant	Section 7.3	
3		Water Management Plan						
3	18	The Applicant must prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must: (a) be prepared by suitably qualified person/s approved by the Secretary;	Prior to undertaking quarrying operations in the extension area	Correspondence	Correspondence	Compliant		Version 3 approved 12/12/19
		(b) be prepared in consultation with the EPA and DPI Water;	Prior to undertaking quarrying operations in the extension area	Correspondence	Correspondence	Compliant		
		(c) be submitted to the Secretary for approval prior to the commencement of development under this consent, unless the Secretary agrees otherwise;	Prior to undertaking quarrying operations in the extension area	Correspondence	Correspondence	Compliant		
		(d) include a Site Water Balance that: - includes details of: -- quantity of water required to support operations; -- sources and security of water supply; -- water use and management on site; -- reporting procedures; and -- measures to be implemented to minimise potable water use on site;	Prior to undertaking quarrying operations in the extension area	Not applicable	Not applicable	Compliant		

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments						
		(e) include a Surface Water Management Plan, that includes: - baseline data on surface water flows and quality in the watercourses that could be affected by the development; - a description of the surface water management system on site, including: -- clean water diversions; -- erosion and sediment controls; -- the dirty water management system; and -- water storages (addressing maximum harvestable rights if applicable); - performance criteria, including trigger levels for investigating any potentially adverse surface water quality impacts; - a program to monitor and report on: -- any surface water discharges; the effectiveness of the water management system; and -- surface water flows and quality in local watercourses; - a plan to respond to any exceedances of the performance criteria.	Prior to undertaking quarrying operations in the extension area	Not applicable	Not applicable	Compliant								
		(f) a Groundwater Management Plan, which includes: - baseline data on groundwater levels, yield and quality in surrounding aquifers; - groundwater assessment and performance criteria, including trigger levels for investigating potentially adverse groundwater impacts; - a program to monitor: -- groundwater inflows to the quarry pit; and -- impacts of the development on surrounding aquifers; - an analysis of the monitoring results to determine long-term water levels within the quarry void; and - a plan to respond to any exceedances of the performance criteria. The Applicant must implement the approved management plan as approved from time to time by the Secretary.	Prior to undertaking quarrying operations in the extension area	Not applicable	Not applicable	Compliant								
			Prior to undertaking quarrying operations in the extension area	Not applicable	Water Management Plan	Compliant								
		BIODIVERSITY												
		Biodiversity Offset Strategy												
3	19	The Applicant must implement the Biodiversity Offset Strategy described in the EIS, as summarised in Table 7 and shown conceptually in Appendix 4, to the satisfaction of the Secretary. <table border="1"> <caption>Table 7: Summary of the Biodiversity Offsets</caption> <thead> <tr> <th>Area</th> <th>Offset Criteria</th> <th>Size (Ha)</th> </tr> </thead> <tbody> <tr> <td>On-site offset</td> <td>Existing vegetation to be enhanced to establish an area of native woodland comprising species associated with Cumberland Plain Woodland.</td> <td>1.93</td> </tr> </tbody> </table>	Area	Offset Criteria	Size (Ha)	On-site offset	Existing vegetation to be enhanced to establish an area of native woodland comprising species associated with Cumberland Plain Woodland.	1.93	On commencement	Visual observations	Photographic evidence Annual review	Compliant	Section 7.6	The site is awaiting approval before further actions can commence.
Area	Offset Criteria	Size (Ha)												
On-site offset	Existing vegetation to be enhanced to establish an area of native woodland comprising species associated with Cumberland Plain Woodland.	1.93												
3		Security of Offsets												
3	20	Within 2 years of notifying the Department of commencement of development (see condition 8 of Schedule 2), unless otherwise agreed with the Secretary, the Applicant must make suitable arrangements to provide appropriate long-term security for the offset area, to the satisfaction of the Secretary. Note: Mechanisms to provide appropriate long term security to the land within the Biodiversity Offset Strategy include a Biobanking Agreement, Voluntary Conservation Agreement or an alternative mechanism that provides for a similar conservation outcome. Any mechanism must remain in force in perpetuity.	Within 2 years of notifying the Department of commencement of development	Correspondence	Correspondence	Compliant		The site is awaiting approval before further actions can commence.						

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3		Biodiversity Management Plan						
3	21	The Applicant must prepare a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:	Prior to undertaking quarrying operations in the extension area	Not applicable	Biodiversity Management Plan	Compliant		The site is awaiting approval before further actions can commence.
		(a) be prepared in consultation with the OEH and Camden Council;						
		(b) be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;	Prior to undertaking quarrying operations in the extension area	Not applicable	Biodiversity Management Plan	Compliant		
		(c) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;	Prior to undertaking quarrying operations in the extension area	Not applicable	Biodiversity Management Plan	Compliant		
		(d) describe the short, medium, and long term measures that would be implemented to: <input type="checkbox"/> manage the remnant vegetation and habitat on the site and in the offset area and; <input type="checkbox"/> implement the biodiversity offset strategy, including detailed performance and completion criteria;	Prior to undertaking quarrying operations in the extension area	Not applicable	Biodiversity Management Plan	Compliant		
		(e) include performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);	Prior to undertaking quarrying operations in the extension area	Not applicable	Biodiversity Management Plan	Compliant		
		(f) include a description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: <input type="checkbox"/> maximising the salvage of resources within the approved disturbance area - including vegetative, soil and cultural heritage resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area; <input type="checkbox"/> minimising the impacts on fauna on site, including pre-clearance surveys and minimising the potential exposure to tailings; <input type="checkbox"/> controlling weeds and feral pests; <input type="checkbox"/> controlling erosion; <input type="checkbox"/> controlling access; and <input type="checkbox"/> bushfire management;	Prior to undertaking quarrying operations in the extension area	Not applicable	Biodiversity Management Plan	Compliant		
		(g) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and	Prior to undertaking quarrying operations in the extension area	Not applicable	Biodiversity Management Plan	Compliant		
		(h) include details of who would be responsible for monitoring, reviewing, and implementing the plan.	Prior to undertaking quarrying operations in the extension area	Not applicable	Biodiversity Management Plan	Compliant		
		The Applicant must implement the approved management plan as approved from time to time by the Secretary.	Prior to undertaking quarrying operations in the extension area	Not applicable	Biodiversity Management Plan	Compliant		
3		Conservation Bond						
3	22	Within 6 months of the approval of the Biodiversity Management Plan, the Applicant must lodge a conservation bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan. The sum of the bond must be determined by: a. calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and b. employing a suitably qualified quantity surveyor to verify the calculated costs, c. to the satisfaction of the Secretary. The calculation of the conservation bond must be submitted to the Department for approval at least 1 month prior to lodgement of the final bond. If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond. If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works. Notes: <input type="checkbox"/> Alternative funding arrangements for long term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate (or any other mechanism agreed with OEH) can be used to reduce the liability of the conservation bond. <input type="checkbox"/> The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy or the completion of major milestones within the approved plan.	Within 6 months of the approval of the Biodiversity Management Plan.	Correspondence	Correspondence	Not Triggered		The site is awaiting approval before further actions can commence.

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments							
3		REHABILITATION BOND													
3		Rehabilitation Objectives													
3	23	<p>The Applicant must rehabilitate the site to the satisfaction of the Secretary. Rehabilitation must:</p> <p>a. comply with the objectives in Table 8; and</p> <p>b. be generally consistent with the proposed rehabilitation strategy in the EIS, and the final land form shown conceptually in Appendix 4 (unless modified by the Final Land Use Options Plan, prepared in accordance with condition 25 of this consent).</p> <p><i>Table 8: Rehabilitation Objectives</i></p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>Site (as a whole)</td> <td> <ul style="list-style-type: none"> Safe, stable and non-polluting Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native species and habitat </td> </tr> <tr> <td>Surface infrastructure</td> <td> <ul style="list-style-type: none"> To be decommissioned and removed (unless the Secretary agrees otherwise) </td> </tr> <tr> <td>Final void</td> <td> <ul style="list-style-type: none"> Minimise the size, depth and slope of the batters of the final void Minimise the drainage catchment of the final void </td> </tr> <tr> <td>Quarry pit floor</td> <td> <ul style="list-style-type: none"> Landscaped and revegetated using native flora species, above the anticipated final void water level </td> </tr> <tr> <td>Community</td> <td> <ul style="list-style-type: none"> Ensure public safety </td> </tr> </tbody> </table>	Feature	Objective	Site (as a whole)	<ul style="list-style-type: none"> Safe, stable and non-polluting Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native species and habitat 	Surface infrastructure	<ul style="list-style-type: none"> To be decommissioned and removed (unless the Secretary agrees otherwise) 	Final void	<ul style="list-style-type: none"> Minimise the size, depth and slope of the batters of the final void Minimise the drainage catchment of the final void 	Quarry pit floor	<ul style="list-style-type: none"> Landscaped and revegetated using native flora species, above the anticipated final void water level 	Community	<ul style="list-style-type: none"> Ensure public safety 	<p>During rehabilitation</p> <p>Visual observations.</p> <p>Photographic evidence</p> <p>Compliant</p> <p>Section 8</p> <p>Rehabilitation Management Plan and Final Landuse Option Plan submitted to DPIE December 2021. Awaiting approval</p>
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3	24	<p>Progressive Rehabilitation</p> <p>The Applicant 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 stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.</p>	<p>During rehabilitation</p>	<p>Visual observations.</p> <p>Review of Rehabilitation Management Plan, Environmental Management Strategy, Final Land Use Options Plan.</p> <p>Review of Mine Operations Plan.</p>	<p>Photographic evidence</p> <p>Annual review</p>	<p>Compliant</p>	<p>Section 8</p>	<p>Rehabilitation Management Plan and Final Landuse Option Plan submitted to DPIE December 2021. Awaiting approval</p>							
3		Final Land Use Options Plan													
3	25	<p>The Applicant must prepare a Final Land Use Options Plan for the site to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with DRE and Camden Council;</p> <p>(b) be submitted to the Secretary for approval within 2 years of the date of notifying the Department of commencement of development (see condition 8 of Schedule 2), unless the Secretary agrees otherwise;</p> <p>(c) provide details of the conceptual final landform and associated final land uses for the site;</p> <p>(d) ensure that the conceptual final land form is compatible with surrounding land uses, and is consistent with the rehabilitation objectives in Table 8 and the objectives of the Growth Centres SEPP for the South West Growth Centre;</p> <p>(e) inform the Rehabilitation Management Plan (prepared in accordance with condition 26 of this consent); and</p> <p>(f) be reviewed every 7 years to account for applicable land use priorities, and if necessary updated.</p>	<p>within 2 years of the date of notifying the Department of commencement of development</p> <p>Every 7 years</p>	<p>Correspondence</p> <p>Correspondence</p> <p>Review of Final Land Use Options Plan</p> <p>Review of Final Land Use Options Plan</p> <p>Review of Rehabilitation Management Plan</p> <p>Review of Final Land Use Options Plan</p>	<p>Correspondence</p> <p>Correspondence</p> <p>Final Land Use Options Plan</p> <p>Final Land Use Options Plan</p> <p>Rehabilitation Management Plan</p> <p>Final Land Use Options Plan</p>	<p>Compliant</p> <p>Compliant</p> <p>Compliant</p> <p>Compliant</p> <p>Compliant</p> <p>Not Triggered</p>	<p>Section 8</p> <p>Section 8</p> <p>Section 8</p> <p>Section 8</p> <p>Section 8</p>	<p>FLUOP approved 3/6/2022</p>							
3		Rehabilitation Management Plan													
3	26	<p>The Applicant must prepare a Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with OEH, DRE, DPI Water and Camden Council;</p> <p>(b) be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;</p> <p>(c) provide details of the conceptual final landform and associated land uses for the site (which must be consistent with the Final Land Use Options Plan under condition 25 of this consent);</p> <p>(d) describe the short, medium and long term measures that would be implemented to:</p> <p><input type="checkbox"/> manage remnant vegetation and habitat on site; and</p> <p><input type="checkbox"/> ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this consent;</p>	<p>Prior to undertaking quarrying operations in the extension area</p> <p>Prior to undertaking quarrying operations in the extension area</p> <p>Prior to undertaking quarrying operations in the extension area</p> <p>Prior to undertaking quarrying operations in the extension area</p>	<p>Correspondence</p> <p>Correspondence</p> <p>Review of Rehabilitation Management Plan</p> <p>Review of Rehabilitation Management Plan</p>	<p>Correspondence</p> <p>Correspondence</p> <p>Rehabilitation Management Plan</p> <p>Rehabilitation Management Plan</p>	<p>Compliant</p> <p>Compliant</p> <p>Compliant</p> <p>Compliant</p>		<p>Rehabilitation Management Plan awaiting approval</p>							

Bringelly Brickworks Extension Project
Applicable Period: 1 July 2021 to 30 June 2022

SSD Conditions: SSD_5684 Mod 1

Compliant

Non-Compliant Non-compliance

Not Triggered A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken, therefore an assessment of compliance is not relevant.

Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments
		(e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggers for any necessary remedial action;	Prior to undertaking quarrying operations in the extension area	Review of Rehabilitation Management Plan	Rehabilitation Management Plan	Compliant		
		(f) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and	Prior to undertaking quarrying operations in the extension area	Review of Rehabilitation Management Plan	Rehabilitation Management Plan	Compliant		
		(g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.	Prior to undertaking quarrying operations in the extension area	Review of Rehabilitation Management Plan	Rehabilitation Management Plan	Compliant		
		The Applicant must implement the approved management plan as approved from time to time by the Secretary. Note: The Rehabilitation Management Plan must be reviewed, and if necessary updated, following any update of the Final Land Use Options Plan.	Prior to undertaking quarrying operations in the extension area	Not applicable	Rehabilitation Management Plan	Compliant		
		HERITAGE						
3		Heritage Management Plan						
3	27	The Applicant must prepare a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must: a. be prepared in consultation with OEH;	Prior to undertaking quarrying operations in the extension area	Correspondence	Correspondence	Compliant		Version 4 approved 12/12/19
		(a) be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;	Prior to undertaking quarrying operations in the extension area	Correspondence	Correspondence	Compliant		
		b. describe the measures that would be implemented to: <input type="checkbox"/> manage identified heritage objects, previously unidentified heritage objects or the discovery of any human remains on site; <input type="checkbox"/> ensure ongoing consultation with Aboriginal stakeholders in the conservation and management of any Aboriginal cultural heritage values on site; and <input type="checkbox"/> protect sites identified adjacent to the development.	Prior to undertaking quarrying operations in the extension area	Not applicable	Heritage Management Plan	Compliant		
		The Applicant must implement the approved management plan as approved from time to time by the Secretary.	As required	Not applicable	Heritage Management Plan	Compliant		
		VISUAL						
3	28	The Applicant must establish a vegetation screen on both noise bunds, as soon as practicable after construction of the bunds, to minimise visibility of site infrastructure from outside the development area. Following establishment, the Applicant must maintain the vegetation screen, to the satisfaction of the Secretary.	As soon as practicable after construction of the bunds	Visual observations	Photographic evidence Annual review	Not Triggered		Bundwalls have not been constructed.
3	29	The Applicant must; a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development; and b) ensure that all external lighting associated with the development complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting, or its latest version.	At all times	Visual observations	Photographic evidence. Annual Review. Absence of complaints.	Compliant	Section 7.8	The quarry does not utilise lighting and operates during daylight hours. The factory is lit for security purposes at night but is sufficient distance from residents for the impact to be minimal.
		BUSHFIRE MANAGEMENT						
3	30	The Applicant must: a) ensure that the development is suitably equipped to respond to any fires on site; and b) assist the Rural Fire Service, emergency services and National Parks and Wildlife Service as much as practicable if there is a fire in the surrounding area.	At all times	Site audit for suitable equipment	Annual Review	Compliant	Section 7.10	The site maintains appropriate fire fighting equipment for the brickplant and offices. Any bushfire in the vegetation around the mine is dealt with by the RFS. The site maintains a Site Emergency Response Procedure.
		WASTE						
3	31	Prior to importing onto the site any material that may be classified as a waste under the EPA Waste Classification Guidelines 2009 (or its latest version), the Applicant must obtain a 'resource recovery exemption' under the POEO Act and provide evidence of this exemption to the Department. Note: This condition does not apply to routine deliveries to the site.	Prior to importation of waste	Correspondence	Correspondence	Compliant	Section 7.9	No waste has been imported onto the site.
3	32	The Applicant must: a) manage on-site sewage treatment and disposal in accordance with the requirements of its EPL, and to the satisfaction of the EPA and Camden Council; and b) pump all sewage generated and stored on-site to a sewage treatment facility, unless otherwise agreed with the Secretary.	At all times	Review of EPL returns and site documents	EPL return.	Compliant	Section 7.9	There have been no EPL non-compliances related to the on-site sewerage treatment and disposal in the last 12 months.
3	33	The Applicant must: a) minimise the waste generated by the development;	At all times	Visual observations Review of waste management plans or policies or procedures	Visual observations Waste management plans or policies or procedures	Compliant	Section 7.9	The quarry generates minimal waste (overburden) which is reused in rehabilitation. Waste generated by the brickworks is stored in the appropriate containers and removed by licenced waste contractors. PGH reviews its purchasing and waste policies and procedures regularly to improve processes as required.
		b) ensure that the waste generated by the development is appropriately stored, handled, and disposed of; and	At all times	Visual observations Review of waste management plans or policies or procedures	Visual observations Waste management plans or policies or procedures	Compliant	Section 7.9	

Bringelly Brickworks Extension Project
Applicable Period: 1 July 2021 to 30 June 2022
SSD Conditions: SSD_5684 Mod 1

Compliant
Non-Compliant Non-compliance
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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments
		c) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.	Annually	Visual observations Review of waste management plans or policies or procedures	Visual observations Waste management plans or policies or procedures Annual Review	Compliant	Section 7.9	
4		ADDITIONAL PROCEDURES						
4		NOTIFICATION OF LANDOWNERS						
4	1	As soon as practicable after obtaining monitoring results showing an exceedance of any relevant criteria in schedule 3, the Applicant must notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria.	As soon as practicable after obtaining monitoring results that exceed criteria	Correspondence	Correspondence	Not Triggered	Section 13	No exceedances of relevant criteria
4		INDEPENDENT REVIEW						
4	2	If an owner of privately-owned land considers the development to be exceeding the relevant criteria in schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land. If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision the Applicant must: (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to: <input type="checkbox"/> consult with the landowner to determine his/her concerns; <input type="checkbox"/> conduct monitoring to determine whether the development is complying with the relevant criteria in schedule 3; <input type="checkbox"/> if the development is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and (b) give the Secretary and landowner a copy of the independent review.	Within 2 months of the Secretary's decision	Independent Review	Independent Review	Not Triggered		
5		ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING						
5		ENVIRONMENTAL MANAGEMENT						
5		Environmental Management Strategy						
5	1	If the Secretary requires, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must: (a) be submitted to the Secretary for approval within 6 months of the Secretary requiring preparation of the strategy by notice to the Applicant;	Within 6 months of the Secretary requiring preparation of the strategy	Correspondence	Correspondence	Compliant	Section 5.2.2	Version 4 approved 12/12/19
		(b) provide the strategic framework for environmental management of the development;	Within 6 months of the Secretary requiring preparation of the strategy	Not applicable	Environmental Management Strategy	Compliant		
		(c) identify the statutory approvals that apply to the development;	Within 6 months of the Secretary requiring preparation of the strategy	Not applicable	Environmental Management Strategy	Compliant		
		(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	Within 6 months of the Secretary requiring preparation of the strategy	Not applicable	Environmental Management Strategy	Compliant		
		(e) describe the procedures that would be implemented to: <input type="checkbox"/> keep the local community and relevant agencies informed about the operation and environmental performance of the development; <input type="checkbox"/> receive, handle, respond to, and record complaints; <input type="checkbox"/> resolve any disputes that may arise during the course of the development; <input type="checkbox"/> respond to any non-compliance; <input type="checkbox"/> respond to emergencies; and	Within 6 months of the Secretary requiring preparation of the strategy	Not applicable	Environmental Management Strategy	Compliant		
		(f) include: <input type="checkbox"/> copies of any strategies, plans and programs approved under the conditions of this consent; and <input type="checkbox"/> a clear plan depicting all the monitoring required to be carried out under the conditions of this consent.	Within 6 months of the Secretary requiring preparation of the strategy	Not applicable	Environmental Management Strategy	Compliant		
		The Applicant must implement any Environmental Management Strategy as approved from time to time by the Secretary.	As required	Not applicable	Environmental Management Strategy	Compliant		
5		Adaptive Management						

Bringelly Brickworks Extension Project
Applicable Period: 1 July 2021 to 30 June 2022
SSD Conditions: SSD_5684 Mod 1

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments
5	2	The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation. Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity: (a) take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur; (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and (c) implement remediation measures as directed by the Secretary; to the satisfaction of the Secretary.	When exceedance of criteria in Schedule 3 occurs.	Review of each monitoring data set.	Annual Review Reports of exceedances and any management plans developed as a result of the exceedances.	Compliant		
5		Management Plan Requirements						
5	3	The Applicant must ensure that the Management Plans required under this consent are prepared in accordance with any relevant guidelines, and include: (a) detailed baseline data; (b) a description of: <input type="checkbox"/> the relevant statutory requirements (including any relevant approval, licence or lease conditions); <input type="checkbox"/> any relevant limits or performance measures/criteria; and <input type="checkbox"/> the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; (d) a program to monitor and report on the: impacts and environmental performance of the development; and <input type="checkbox"/> effectiveness of any management measures (see (c) above); (e) a contingency plan to manage any unpredicted impacts and their consequences; (f) a program to investigate and implement ways to improve the environmental performance of the development over time; (g) a protocol for managing and reporting any: <input type="checkbox"/> incidents; <input type="checkbox"/> complaints; <input type="checkbox"/> non-compliances with statutory requirements; and <input type="checkbox"/> exceedances of the impact assessment criteria and/or performance criteria; and (h) a protocol for periodic review of the plan. Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.	As required	Review of relevant Management Plans	Relevant Management Plans	Compliant	Section 5.2.2	

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments
		Annual Review						
5	4	By the end of September each year, the Applicant must submit a report to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must: (a) describe the development (including rehabilitation) that was carried out in the previous financial year, and the development that is proposed to be carried out over the current financial year; (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous financial year, which includes a comparison of these results against: <input type="checkbox"/> the relevant statutory requirements, limits or performance measures/criteria; <input type="checkbox"/> the monitoring results of previous years; and <input type="checkbox"/> the relevant predictions in the documents in condition 2(a) 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 development; (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and (f) describe what measures will be implemented over the current financial year to improve the environmental performance of the development.	End of September each year.	Review of all data and plans for site for the financial year	Monitoring data and other relevant documents and photography	Compliant		This report will be submitted prior to the end of September. 2021 Annual review was submitted via the portal. The client has no correspondence regarding further information required.
5		Revision of Strategies, Plans & Programs						
5	5	Within 3 months of the submission of an: (a) Annual Review under condition 4 above; (b) incident report under condition 7 below; (c) audit report under condition 9 below; and (d) any modifications to this consent, the Applicant must review the strategies, plans and programs required under this consent, to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary. Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve environmental performance of the development.	Within 3 months of described conditions	Not applicable	Correspondence	Compliant		
5		Community Consultative Committee						
5	6	The Applicant must establish and operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Developments (Department of Planning, 2007, or its latest version), and be operating prior to the commencement of development under this consent. Notes: <input type="checkbox"/> The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent. <input type="checkbox"/> In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Applicant, Camden Council and the local community.	Prior to undertaking quarrying operations in the extension area	Correspondence	Correspondence	Compliant	Section 11	
		REPORTING						
5		Incident Reporting						
5	7	The Applicant must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	Immediately notify after any incident and report within 7 days of incident	Not applicable	Correspondence	Compliant		
		Regular Reporting						
5	8	The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.	As required	Review of website	Website	Compliant		
5		INDEPENDENT ENVIRONMENTAL AUDIT						

Bringelly Brickworks Extension Project
Applicable Period: 1 July 2021 to 30 June 2022

SSD Conditions: SSD_5684 Mod 1

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Where addressed in Annual Review	Comments
5	9	Within a year of commencing development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must: (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary; (b) include consultation with the relevant agencies; (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licence (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 development, and/or any assessment, plan or program required under these approvals; and be conducted and reported to the satisfaction of the Secretary. Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.	Within a year of commencing development under this consent, and every 3 years thereafter,	Review of all data, documents, correspondence, reports and plans for site.	Audit report	Compliant		Independent Audit was undertaken by Element Environment Pty Ltd in January 2021. The next Audit will be due in 2024.
5	10	Within 12 weeks of commencing this audit, unless the Secretary agrees otherwise, the Applicant must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, including a timetable for the implementation of any measures proposed to address the recommendations in the audit report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented. Within 7 days of commencing the audit, the Applicant must notify the Department in writing of the commencement of the audit.	Audit report to be supplied to Secretary within 12 weeks of commencing audit. Notify the Department within 7 days of commencing the audit.	Correspondence	Correspondence	Compliant		
5		ACCESS TO INFORMATION						
5	11	Within 6 months of commencing development under this consent, the Applicant must: (a) make copies of the following publicly available on its website: <input type="checkbox"/> the documents in condition 2(a) of Schedule 2; <input type="checkbox"/> current statutory approvals for the development; <input type="checkbox"/> approved strategies, plans and programs required under the conditions of this consent; <input type="checkbox"/> a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; <input type="checkbox"/> a complaints register, which is to be updated monthly; <input type="checkbox"/> minutes of CCC meetings; <input type="checkbox"/> the annual reviews of the development (for the last 5 years); <input type="checkbox"/> any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit; <input type="checkbox"/> any other matter required by the Secretary; and keep this information up-to-date, to the satisfaction of the Secretary. (b)	Within 6 months of commencing development under this consent.	Review of website	Website	Compliant		The approved Plans and Strategies have been uploaded to the website.
Appendix 5		NOISE COMPLIANCE ASSESSMENT						
		Applicable Meteorological Conditions						
	1	The noise criteria in Table 2 of the conditions are to apply under all meteorological conditions except the following: (a) wind speeds greater than 3 m/s at 10 m above ground level; or (b) temperature inversion conditions between 1.5 °C and 3°C/100 m and wind speeds greater than 2 m/s at 10 m above ground level; or (c) temperature inversion conditions greater than 3°C/100 m.	When meteorological conditions apply	NSW Industrial Noise Policy Meteorological monitoring	Noise monitoring results. Meteorological data	Compliant		A weather station has been installed in early 2017. Generally the site does not operate during inversion conditions as these are commonly experienced outside of operating hours. No complaints have been received during the report period.
		Determination of Meteorological Conditions						
	2	Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station on or in the vicinity of the site.	During meteorological monitoring	On-site meteorological station.	Meteorological data.	Compliant		A weather station has been installed in early 2017.
		Compliance Monitoring						
	3	Unless directed otherwise by the Secretary, quarterly attended monitoring is to be used to evaluate compliance with the relevant conditions of consent. Note: The Secretary may direct that the frequency of attended monitoring increase or decrease at any time during the life of the development.	Quarterly	NSW Industrial Noise Policy	Noise monitoring results.	Compliant	Appendix N	Current management measures have been satisfactory to date and no complaints have been received the the last 12 months.
	4	Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Industrial Noise Policy (as amended from time to time), in particular the requirements relating to: (a) monitoring locations for the collection of representative noise data; (b) meteorological conditions during which collection of noise data is not appropriate; (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and (d) modifications to noise data collected including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.	Quarterly	NSW Industrial Noise Policy	Noise monitoring results.	Compliant	Appendix N	Monitoring has been undertaken as required by consent conditions.

Bringelly Brickworks Extension Project

EPL1808

Compliant
Non Compliant
Not Triggered

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Condition	Commitment	Details of compliance status	Comments												
1	Administrative Conditions														
A1.1	<p>What the licence authorises and regulates This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation. Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.</p> <table border="1"> <thead> <tr> <th>Scheduled Activity</th> <th>Fee Based Activity</th> <th>Scale</th> </tr> </thead> <tbody> <tr> <td>Ceramic Works produced</td> <td>Ceramics production</td> <td>> 50000 - 200000 T</td> </tr> <tr> <td>Crushing, grinding or separating Extractive Activities processed or stored</td> <td>Crushing, Grinding or Separating Land-based extractive activity</td> <td>> 100000 - 500000 T processed > 100000 - 500000 T extracted,</td> </tr> <tr> <td>Mining for minerals</td> <td>Mining for Minerals</td> <td>> 100000 - 500000 T produced</td> </tr> </tbody> </table>	Scheduled Activity	Fee Based Activity	Scale	Ceramic Works produced	Ceramics production	> 50000 - 200000 T	Crushing, grinding or separating Extractive Activities processed or stored	Crushing, Grinding or Separating Land-based extractive activity	> 100000 - 500000 T processed > 100000 - 500000 T extracted,	Mining for minerals	Mining for Minerals	> 100000 - 500000 T produced	Compliant	
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A2.1	The licence applies to the following premises: Premises Details BRINGELLY LOT 2 GREENDALE ROAD BRINGELLY NSW 2556 LOT 11 DP 1125892	Compliant													
A3.1	<p>Information supplied to the EPA Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence. In this condition the reference to "the licence application" includes a reference to: a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.</p>	Compliant													
2	Discharges to Air and Water and Applications to Land														
P1.1	<p>Location of monitoring/discharge points and areas The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th colspan="4" style="text-align: center;"><i>Air</i></th> </tr> <tr> <th>EPA identification no.</th> <th>Type of Monitoring Point</th> <th>Type of Discharge Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>Discharge to Air; Air Emissions Monitoring</td> <td>Discharge to Air; Air Emissions Monitoring</td> <td>Kiln exhaust stack as marked on map showing locations of discharge points submitted to the EPA with Licence Information Form dated 9/05/00.</td> </tr> </tbody> </table>	<i>Air</i>				EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	2	Discharge to Air; Air Emissions Monitoring	Discharge to Air; Air Emissions Monitoring	Kiln exhaust stack as marked on map showing locations of discharge points submitted to the EPA with Licence Information Form dated 9/05/00.	Compliant	
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Bringelly Brickworks Extension Project

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Condition	Commitment	Details of compliance status	Comments																
P1.2	The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.	Compliant																	
P1.3	<p>The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="4" style="text-align: center;"><i>Water and land</i></th> </tr> <tr> <th>EPA Identification no.</th> <th>Type of Monitoring Point</th> <th>Type of Discharge Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Discharge and Monitoring; Discharge to waters</td> <td>Discharge and Monitoring; Discharge to waters</td> <td>Outlet from Dam 1 on map labelled: Site Layout Plan, Figure 2, Water Management Plan dated 10.11.15 (EPA DOC15/464889-02). Discharge point is located on the NE corner of Dam 1.</td> </tr> <tr> <td>5</td> <td>Discharge and Monitoring; Discharge to waters</td> <td>Discharge and Monitoring; Discharge to waters</td> <td>Discharge from Dam 5 on map labelled: Site Layout Plan, Figure 2, Water Management Plan dated 10.11.15 (EPA DOC15/464889-02). Discharge point is located on the NW corner of Dam 5.</td> </tr> </tbody> </table>	<i>Water and land</i>				EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	1	Discharge and Monitoring; Discharge to waters	Discharge and Monitoring; Discharge to waters	Outlet from Dam 1 on map labelled: Site Layout Plan, Figure 2, Water Management Plan dated 10.11.15 (EPA DOC15/464889-02). Discharge point is located on the NE corner of Dam 1.	5	Discharge and Monitoring; Discharge to waters	Discharge and Monitoring; Discharge to waters	Discharge from Dam 5 on map labelled: Site Layout Plan, Figure 2, Water Management Plan dated 10.11.15 (EPA DOC15/464889-02). Discharge point is located on the NW corner of Dam 5.	Compliant	
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3	Limit Conditions																		
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	Compliant																	
L2.1	<p>Load limits</p> <p>The actual load of an assessable pollutant discharged from the premises during the reporting period must not exceed the load limit specified for the assessable pollutant in the table below.</p>	Compliant																	
L2.2	<p>The actual load of an assessable pollutant must be calculated in accordance with the relevant load calculation protocol.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Assessable Pollutant</th> <th>Load limit (kg)</th> </tr> </thead> <tbody> <tr> <td>Coarse Particulates (Air)</td> <td>8400.00</td> </tr> <tr> <td>Fine Particulates (Air)</td> <td>33300.00</td> </tr> <tr> <td>Fluoride (Air)</td> <td>11700.00</td> </tr> <tr> <td>Nitrogen Oxides - Summer (Air)</td> <td></td> </tr> <tr> <td>Nitrogen Oxides (Air)</td> <td>90300.00</td> </tr> <tr> <td>Sulfur Oxides (Air)</td> <td>186500.00</td> </tr> </tbody> </table> <p>Note: An assessable pollutant is a pollutant which affects the licence fee payable for the licence.</p>	Assessable Pollutant	Load limit (kg)	Coarse Particulates (Air)	8400.00	Fine Particulates (Air)	33300.00	Fluoride (Air)	11700.00	Nitrogen Oxides - Summer (Air)		Nitrogen Oxides (Air)	90300.00	Sulfur Oxides (Air)	186500.00	Compliant			
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L3.1	<p>Concentration limits</p> <p>For each monitoring/discharge point or utilisation area specified in the tables below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.</p>	Compliant																	
L3.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	Compliant																	

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L3.3	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table's.	Compliant																																																							
L3.4	<p>Air Concentration Limits</p> <p>POINT 2</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>100 percentile concentration limit</th> <th>Reference conditions</th> <th>Oxygen correction</th> <th>Averaging period</th> </tr> </thead> <tbody> <tr> <td>Total Solid Particles</td> <td>milligrams per cubic metre</td> <td>100</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Hydrogen fluoride</td> <td>milligrams per cubic metre</td> <td>50</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Nitrogen Oxides</td> <td>milligrams per cubic metre</td> <td>2000</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period	Total Solid Particles	milligrams per cubic metre	100				Hydrogen fluoride	milligrams per cubic metre	50				Nitrogen Oxides	milligrams per cubic metre	2000				Compliant																															
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L3.6	Exceedance of a quality limit specified in this Licence for the discharge of total suspended solids or turbidity from Point 1 or Point 5 is only permitted if the discharge from Point 1 or Point 5 occurs solely as a result of rainfall. The rainfall must be equal to, or greater than, a 90th percentile 5-day rain event.	Compliant																																																							

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Condition	Commitment	Details of compliance status	Comments
L3.7	For the purposes of Condition L3.6, a 90th percentile 5-day rain event equates to rainfall of 50 millimetres over a 5 day period.	Compliant	
L3.8	For the purposes of the condition(s) above, rainfall data recorded by the meteorological station identified as the Bureau of Meteorology (BoM) Badgerys Creek Weather Station must be used to determine the rain event.	Compliant	
L4.1	Noise from the mobile plant must not exceed an LA10 (15 minute) noise emission criterion of 35 dB(A) at all times. except as expressly provided by this licence.	Compliant	
L4.2	Noise from the premises must not exceed an LA10 (15 minute) noise emission criterion of 35 dB(A) at all times. except as expressly provided by this licence.	Compliant	
L4.3	Noise from the premises is to be measured or computed at any point within 30 metres of the most affected residence to determine compliance with condition L4.1 and L4.2. 5dB(A) must be added if the noise is tonal or impulsive in character.	Compliant	
4	Operating Conditions		
O1.1	Activities must be carried out in a competent manner Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	Compliant	
O2.1	Maintenance of plant and equipment All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.	Compliant	
O3.1	Dust The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Compliant	
5	Monitoring and Recording Conditions		
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Compliant	
M1.2	All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them.	Compliant	

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M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	Compliant																																					
M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Compliant																																					
M2.2	Air Monitoring Requirements POINT 2 <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Hydrogen fluoride</td> <td>milligrams per cubic metre</td> <td>Yearly</td> <td>TM-9</td> </tr> <tr> <td>Nitrogen Oxides</td> <td>milligrams per cubic metre</td> <td>Yearly</td> <td>TM-11</td> </tr> <tr> <td>Total Solid Particles</td> <td>milligrams per cubic metre</td> <td>Yearly</td> <td>TM-15</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Hydrogen fluoride	milligrams per cubic metre	Yearly	TM-9	Nitrogen Oxides	milligrams per cubic metre	Yearly	TM-11	Total Solid Particles	milligrams per cubic metre	Yearly	TM-15	Compliant																					
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Condition	Commitment	Details of compliance status	Comments
M3.1	<p>Testing methods - concentration limits Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence the pollutant; or b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.</p> <p>must be done in accordance with: a) any methodology which is required by or under the Act to be used for the testing of the concentration of</p> <p>Note: The Protection of the Environment Operations (Clean Air) Regulation 2010 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".</p>	Compliant	
M3.2	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.	Compliant	
M4	<p>Testing methods - load limits Note: Division 3 of the Protection of the Environment Operations (General) Regulation 2009 requires that monitoring of actual loads of assessable pollutants listed in L2.2 must be carried out in accordance with the relevant load calculation protocol set out for the fee-based activity classification listed in the Administrative Conditions of this licence.</p>	Compliant	
M5.1	<p>Recording of pollution complaints The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.</p>	Compliant	
M5.2	<p>The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.</p>	Compliant	
M5.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Compliant	
M5.4	The record must be produced to any authorised officer of the EPA who asks to see them.	Compliant	

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M6.1	Telephone complaints line The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or	Compliant	
M6.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	Compliant	
M6.3	The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.	Compliant	
6	Reporting Conditions		
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: 1. a Statement of Compliance, 2. a Monitoring and Complaints Summary, 3. a Statement of Compliance - Licence Conditions, 4. a Statement of Compliance - Load based Fee, 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan, 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data, 7. a Statement of Compliance - Environmental Management Systems and Practices; and 8. a Statement of Compliance - Environmental Improvement Works. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	Compliant	
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below. Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.	Compliant	
R1.3	Where this licence is transferred from the licensee to a new licensee: a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.	Compliant	
R1.4	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on: a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.	Compliant	
R1.5	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	Compliant	

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Condition	Commitment	Details of compliance status	Comments
R1.6	Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date. The notification must specify: a) the assessable pollutants for which the actual load could not be calculated; and b) the relevant circumstances that were beyond the control of the licensee.	Compliant	
R1.7	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	Compliant	
R1.8	Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	Compliant	
R2.1	Notification of environmental harm Notifications must be made by telephoning the Environment Line service on 131 555.	Compliant	
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred. Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	Compliant	
R3.1	Written report Where an authorised officer of the EPA suspects on reasonable grounds that: a) where this licence applies to premises, an event has occurred at the premises; or b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	Compliant	
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	Compliant	
R3.3	The request may require a report which includes any or all of the following information: a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) any other relevant matters.	Compliant	

Bringelly Brickworks Extension Project

EPL1808

Compliant
Non Compliant
Not Triggered

A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken, therefore an assessment of compliance is not relevant.

Condition	Commitment	Details of compliance status	Comments												
R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	Compliant													
7	General Conditions														
G1.1	Copy of licence kept at the premises or plant A copy of this licence must be kept at the premises to which the licence applies.	Compliant													
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	Compliant													
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	Compliant													
G2.1	Completed Programs <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #cccccc;">PRP</th> <th style="background-color: #cccccc;">Description</th> <th style="background-color: #cccccc;">Completed Date</th> </tr> </thead> <tbody> <tr> <td>PRP 1 - WATER MONITORING PROGRAM</td> <td>Water monitoring program for conductivity in discharges into Thompsons Creek from Licensed Discharge Point 4.</td> <td>30-May-2014</td> </tr> <tr> <td>PRP 2 - WATER MANAGEMENT PLAN</td> <td>Protect and reduce the impact on Thompsons Creek by preparing a Water Management Plan (WMP) which outlines options to improve on site water management and reduce pollutant loads discharged from the site to Thompsons Creek.</td> <td>13-November-2015</td> </tr> </tbody> </table>	PRP	Description	Completed Date	PRP 1 - WATER MONITORING PROGRAM	Water monitoring program for conductivity in discharges into Thompsons Creek from Licensed Discharge Point 4.	30-May-2014	PRP 2 - WATER MANAGEMENT PLAN	Protect and reduce the impact on Thompsons Creek by preparing a Water Management Plan (WMP) which outlines options to improve on site water management and reduce pollutant loads discharged from the site to Thompsons Creek.	13-November-2015	Compliant				
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No.	Special Condition	Description	Completed Date												
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2	Surface water management options	To submit a report on the best utilisation of water from dams 5 & 6.	1 Mar 2005												

Bringelly Brickworks Extension Project

ML1731 (Act 1992) and Variation from 1/5/2017

Compliant

Non Compliant Non-compliance

Not Triggered A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken, therefore an assessment of compliance is not relevant.

Number	Condition	Details of compliance status	Comments
1 a)	Notice to Landholders Within a period of three months from the date of grant/renewal of this mining lease, the lease holder must serve on each landholder a notice in writing indicating that this mining lease has been granted/renewed and whether the lease includes the surface. A plan identifying each landholder and individual land parcel subject to the lease area, and a description of the lease area must accompany the notice.	Compliant	PGH are the landholder.
1 b)	If there are ten or more landholders, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this mining lease has been granted/renewed; state whether the lease includes the surface and must contain a plan and description of the lease area. If a notice is made under condition 1(b), compliance with condition 1(a) is not required.	Not Triggered	
2	Rehabilitation Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.	Compliant	Rehabilitation to date has been reviewed in the ARR submitted to the DPE annually and approved. Rehabilitation to date has been consistent with the Objectives and approved RMP.
3 a)	Mining Operations Plan and Annual Rehabilitation Report The lease holder 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 lease holder 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	A MOP has been submitted and approved by the DPE and Resources Regulator. The Annual Review is provided to Resources Regulator and DPIE. New reporting conditions for ML's will commence next report period.
3 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 Environmental Planning and Assessment Act 1979; •the Protection of the Environment Operations Act 1997; and •any other approvals relevant to the development including the conditions of this mining lease.	Compliant	A MOP has been submitted and approved
3 c)	The MOP must be prepared in accordance with the ESG3: Mining Operations Plan (MOP) Guidelines September 2013 published on the Department's website at www.resourcesandenergy.nsw.gov.au/miners-and-explorers/rules-and-forms/pgf/environmental-guidelines	Compliant	A MOP was prepared in accordance with the guideline and approved
3 d)	The lease holder may apply to the Minister to amend an approved MOP at any time.	Not Triggered	
3 e)	It is not a breach of this condition if: (i) the operations which, but for this condition 3(e) would be a breach of condition 3(a), were necessary to comply with a lawful order or direction given under the Environmental Planning and Assessment Act 1979, the Protection of the Environment Operations Act 1997, the Work Health and Safety (Mines and Petroleum Sites) Act 2013 and Work Health and Safety (Mines and Petroleum Sites) Regulation 2014 or the Work Health and Safety Act 2011; and Work Health and Safety Regulation 2011 (ii) the Minister had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out.	Not Triggered	

Bringelly Brickworks Extension Project

ML1731 (Act 1992) and Variation from 1/5/2017

Compliant

Non Compliant Non-compliance

Not Triggered A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken, therefore an assessment of compliance is not relevant.

Number	Condition	Details of compliance status	Comments
3 f)	The lease holder must prepare a Rehabilitation Report to the satisfaction of the Minister. The report must: (i) provide a detailed review of the progress of rehabilitation against the performance measures and criteria established in the approved MOP; (ii) be submitted annually on the grant anniversary date (or at such other times as agreed by the Minister); and (iii) be prepared in accordance with any relevant annual reporting guidelines published on the Department's website at www.resourcesandenergy.nsw.gov.au/miners-and-explorers/rules-and-forms/pgf/environmental-guidelines Note: The Rehabilitation Report replaces the Annual Environmental Management Report.	Compliant	The ML was granted in March 2016. The DPE has approved that the completion date for the ARR will now correspond to the financial year in line with the Annual Review required by DPIE.
4 a)	The lease holder must notify the Department upon becoming aware of any breaches of the conditions of this mining lease or breaches of the Mining Act or Regulations;	Not Triggered	
4 b)	Notifications under condition 4(a) must be provided in the form specified on the Department's website within seven (7) days of the mining lease holder becoming aware of the breach.	Not Triggered	
5	Environmental Incident Report The lease holder must provide environmental incident notifications and reports to the Secretary no later than seven (7) days after those environmental incident notifications and reports are provided to the relevant authorities under the Protection of the Environment Operations Act 1997.	Compliant	
6	Resource Recovery The lease holder must optimise recovery of the minerals that are the subject of this mining lease to the extent economically feasible.	Compliant	
7	Security The lease holder 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. The amount of the security deposit to be provided has been assessed by the Minister at \$776,000.	Compliant	Security has been provided.
8	Cooperation Agreement The lease holder must make every reasonable attempt, and be able to demonstrate its attempts, to enter into a cooperation agreement with the holder(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issues such as: access arrangements operational interaction procedures dispute resolution information exchange well location timing of drilling potential resource extraction conflicts; and rehabilitation issues.	Compliant	
	Exploration Reporting Note: Exploration Reports (Geological and Geophysical) The lease holder must lodge reports to the satisfaction of the Minister in accordance with section 163C of the Mining Act 1992 and in accordance with clause 59 of the Mining Regulation 2016. Reports must be prepared in accordance with Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales.	Compliant	An exploration report was submitted 5/4/22.

Bringelly Brickworks Extension Project

Water Licence 10BL605770 for monitoring bores

Compliant

Non Compliant

Not Triggered

A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken, therefore an assessment of compliance is not relevant.

Condition	Commitment	Details of compliance status	Comments
1	The licence shall lapse if the work is not commenced and completed within 3 years of the date of the issue of the licence.	Compliant	The bores have been installed.
2	The licensee shall within 2 months of completion or after the issue of the licence of the work is existing, furnish to NSW Office of Water: a) details of the work set out in the attached Form "A" (completed by a driller). b) A plan showing accurately the location of the work, in relation to portion and property boundaries. c) A one litre water sample for all licences other than those for stock, domestic, test bores and farming purposes. d) details of any water analysis and/or pumping tests.	Compliant	The Form A, location plan and analysis details have been provided to DPI Water in 2015 with the application for the bore licence.
3	The licensee shall allow NSW Office of Water or any person authorised by it, full and free access to the works, either during or after construction, for the purpose of carrying out inspection or test of the works and its fittings and shall carry out any work or alterations deemed necessary by the department for the protection and proper maintenance of the works, or the control of the water extracted and for the protection of the quality and the prevention from pollution or contamination of sub-surface water.	Compliant	
4	If during the construction of the work, saline or polluted water is encountered above the producing aquifer, such water shall be sealed off by: a) inserting the appropriate length of casing to a depth sufficient to exclude the saline or polluted water from the work b) cementing between the casing(s) and the walls of the bore hole from the bottom of the casing to ground level. Any departure from these procedures must be approved by the Department before undertaking the work.	Compliant	
5	a) the licensee shall notify NSW Office of Water if a flowing supply of water is obtained. The bore shall then be lined with casing and cemented and a suitable closing gear shall be attached to the bore head as specified by NSW Office of Water. B) if a flowing supply of water is obtained from the work, the licensee shall only distribute water from the bore head by a system of pipelines and shall not distribute it in drains, natural or artificial channels or depressions.	Not Triggered	
6	If a work is abandoned at any time the licensee shall notify NSW Office of Water that the work has been abandoned and seal off the aquifer by: a) backfilling the work to the ground level with clay or cement after withdrawing the casing (lining); or b) Such methods as agreed to or directed by NSW Office of Water.	Not Triggered	
7	The licensee shall not allow any tailwater/drainage to discharge into or onto: any adjoining public or crown road; any other persons land; any Crown land; any river, creek or watercourse; any native vegetation as described under the native Vegetation Conservation Act 1997; Any wetlands of environmental significance.	Compliant	
8	Works used for the purpose of conveying, distributing or storing water taken by means of the licenced work shall not be constructed or installed so as to obstruct the reasonable passage of flood waters flowing into or from a river.	Compliant	
9	If the bore authorised by this licence is lined with steel or plastic casing the inside diameter of that casing shall not exceed 220mm.	Compliant	Bore diameters are approximately 60mm.
10	Water shall not be pumped from the bore authorised by this licence from any purpose other than groundwater investigation.	Compliant	
11	Subject to condition (12) the licensee shall within 2 months of the date of completion of the bore authorised by the licence, 1) backfill it with clay or cement to ground level after withdrawing any casing (lining) or; 2) render it ineffective by any other means acceptable to the Department.	Not Triggered	
12	Condition 11 shall have no force or effect if: 1) at the relevant time there is with NSW Office of Water, an application in respect of which the Department has not made a decision to convert the groundwater investigation bore into a production bore; or 2) The licensee has completed the bore for the purpose of measuring water levels or water quality by the addition of casing with a diameter not exceeding 220mm.	Not Triggered	

Bringelly Brickworks Extension Project

Water Licence WAL26259- Surface Water

Compliant

Non Compliant: High Risk

Non Compliant: Medium Risk

Non Compliant: Low Risk

Not Triggered

A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken, therefore an assessment of compliance is not relevant.

Condition	Commitment	Details of compliance status	Comments
	Unregulated River; Hawkesbury and Lower Nepean Rivers Water Source; Upper South Creek Management Zone; Share components 150.0		
MW0112-00001	The maximum water allocation that may be carried over in the account for this access licence from one water year to the next water year is: A. a volume equal to 100 % of the share component of the licence, or B. 1 ML/unit share of the share component of the licence.	Compliant	No water has been drawn from the WALs over the reporting period.
MW0036-00002	The volume of water taken in any three (3) consecutive water years from 1 July 2012 must be recorded in the logbook at the end of those three water years. The maximum volume of water permitted to be taken in those years must also be recorded in the logbook.	Compliant	No water has been drawn from the WALs over the reporting period.
MW0605-00001	Water must be taken in compliance with the conditions of the approval for the nominated work on this access licence through which water is to be taken. This restriction does not apply if water is to be taken: A. from an off-river pool, an in-river pool, a runoff harvesting dam or an in-river dam pool, or B. from the following Weirs: Maldon, Douglas Park, Menangle, Camden, Sharpes, Cobbity, Mount Hunter Rivulet, Brownlow Hill, Theresa Park and Wallacia.	Compliant	No water has been drawn from the WALs over the reporting period.
MW0080-00012	From 1 July 2011, water must not be taken from the Upper South Creek Management Zone of the Hawkesbury and Lower Nepean Rivers Water Source when flows are in the Very Low Flow Class, which means that the flow is 0.2 ML/day or less at South Creek at the Great Western Highway gauge [No. 212048]. This restriction does not apply if water is to be taken from a runoff harvesting dam or an in-river dam pool.	Compliant	No water has been drawn from the WALs over the reporting period.
MW0078-00004	In the Upper South Creek Management Zone of the Hawkesbury and Lower Nepean Rivers Water Source, if the flow is less than 0.2 ML/day at South Creek at the Great Western Highway gauge [No. 212048] for a period of 24 or more consecutive hours, then there must be a minimum flow of 0.2 ML/day at that gauge for at least 24 hours before water can be taken.	Compliant	No water has been drawn from the WALs over the reporting period.
MW0004-00002	From 1 July 2012, the total volume of water taken in any three (3) consecutive water years under this access licence must not exceed a volume which is equal to the lesser of either: A. the sum of: i. water in the account from the available water determinations in those 3 consecutive water years, plus ii. water in the account carried over from the water year prior to those 3 consecutive water years, plus iii. any net amount of water assigned to or from this account under a water allocation assignment in those 3 consecutive water years, plus iv. any water re-credited by the Minister to the account in those 3 consecutive water years, or B. the sum of: i. the share component of this licence at the beginning of the first year in those 3 consecutive water years, plus ii. the share component of this licence at the beginning of the second year in those 3 consecutive water years, plus iii. the share component of this licence at the beginning of the third year in those 3 consecutive water years, plus iv. any net amount of water assigned to or from this account under a water allocation assignment in those 3 consecutive water years, plus v. any water re-credited by the Minister to the account in those 3 consecutive water years.	Compliant	No water has been drawn from the WALs over the reporting period.
MW2338-00001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.	Compliant	No water has been drawn from the WALs over the reporting period.
MW2337-00001	The following information must be recorded in the logbook for each period of time that water is taken: A. date, volume of water, start and end time when water was taken as well as the pump capacity per unit of time, and B. the access licence number under which the water is taken, and C. the approval number under which the water is taken, and D. the volume of water taken for domestic consumption and/or stock watering.	Compliant	No water has been drawn from the WALs over the reporting period.
MW2339-00001	A logbook must be kept, unless the work is metered and fitted with a data logger. The logbook must be produced for inspection when requested by the relevant licensor.	Compliant	No water has been drawn from the WALs over the reporting period.
MW0051-00002	Once the licence holder becomes aware of a breach of any condition on this access licence, the licence holder must notify the Minister as soon as practicable. The Minister must be notified by: A. email: water.enquiries@dpi.nsw.gov.au, or B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.	Not Triggered	

Bringelly Brickworks Extension Project

Water Licence WAL26257- Surface Water

Compliant

Non Compliant

Not Triggered

A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken, therefore an assessment of compliance is not relevant.

Condition	Commitment	Details of compliance status	Comments
	Domestic and Stock; Hawkesbury and Lower Nepean Rivers Water Source; Upper South Creek Management Zone; Share components 6.50		
MW0112-00001	The maximum water allocation that may be carried over in the account for this access licence from one water year to the next water year is: A. a volume equal to 100 % of the share component of the licence, or B. 1 ML/unit share of the share component of the licence.	Compliant	No water has been drawn from the WALs over the reporting period.
MW4215-00001	Water may be taken for domestic consumption not exceeding 1 kL/house per day: A. when flows in the Upper South Creek Management Zone of the Hawkesbury and Lower Nepean Rivers Water Source are in the Very Low Flow Class which means that the flow is 0.2 ML/day or less at the South Creek Great Western Highway gauge [No. 212048], or B. when there is no visible flow at the location at which the water proposed to be taken, or C. if water is taken from an in-river, off-river pool, natural pool, lake or lagoon, when the volume of water in that pool lake or lagoon is less than at full capacity.	Compliant	
MW0036-00002	The volume of water taken in any three (3) consecutive water years from 1 July 2012 must be recorded in the logbook at the end of those three water years. The maximum volume of water permitted to be taken in those years must also be recorded in the logbook.	Compliant	
MW0605-00001	Water must be taken in compliance with the conditions of the approval for the nominated work on this access licence through which water is to be taken. This restriction does not apply if water is to be taken: A. from an off-river pool, an in-river pool, a runoff harvesting dam or an in-river dam pool, or B. from the following Weirs: Maldon, Douglas Park, Menangle, Camden, Sharpes, Cobbity, Mount Hunter Rivulet, Brownlow Hill, Theresa Park and Wallacia.	Compliant	
MW4251-00001	Water must not be taken for stock watering: A. when flows in the Upper South Creek Management Zone of the Hawkesbury and Lower Nepean Rivers Water Source are in the Very Low Flow Class, which means that the flow is 0.2 ML/day or less at the South Creek Great Western Highway gauge [No. 212048], or B. when there is no visible flow in the water source at the location where water is to be taken. These restrictions do not apply if water is to be taken from a runoff harvesting dam or an in-river dam pool.	Compliant	
MW0004-00002	From 1 July 2012, the total volume of water taken in any three (3) consecutive water years under this access licence must not exceed a volume which is equal to the lesser of either: A. the sum of: i. water in the account from the available water determinations in those 3 consecutive water years, plus ii. water in the account carried over from the water year prior to those 3 consecutive water years, plus iii. any net amount of water assigned to or from this account under a water allocation assignment in those 3 consecutive water years, plus iv. any water re-credited by the Minister to the account in those 3 consecutive water years, or B. the sum of: i. the share component of this licence at the beginning of the first year in those 3 consecutive water years, plus ii. the share component of this licence at the beginning of the second year in those 3 consecutive water years, plus iii. the share component of this licence at the beginning of the third year in those 3 consecutive water years, plus iv. any net amount of water assigned to or from this account under a water allocation assignment in those 3 consecutive water years, plus v. any water re-credited by the Minister to the account in those 3 consecutive water years.	Compliant	
MA2455-00012	Water must be used for the purpose of domestic consumption and stock watering.	Compliant	
MW2338-00001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.	Compliant	
MW2337-00001	The following information must be recorded in the logbook for each period of time that water is taken: A. date, volume of water, start and end time when water was taken as well as the pump capacity per unit of time, and B. the access licence number under which the water is taken, and C. the approval number under which the water is taken, and D. the volume of water taken for domestic consumption and/or stock watering.	Compliant	
MW2339-00001	A logbook must be kept, unless the work is metered and fitted with a data logger. The logbook must be produced for inspection when requested by the relevant licensor.	Compliant	
MW0051-00002	Once the licence holder becomes aware of a breach of any condition on this access licence, the licence holder must notify the Minister as soon as practicable. The Minister must be notified by: A. email: water.enquiries@dpi.nsw.gov.au, or B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.	Not Triggered	

Bringelly Brickworks Extension Project

Water Licence WAL25987- Surface Water

Compliant

Non Compliant

Not Triggered

A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken, therefore an assessment of compliance is not relevant.

Condition	Commitment	Details of compliance status	Comments
	Unregulated River; Hawkesbury and Lower Nepean Rivers Water Source; Upper South Creek Management Zone; Share components 152.5		
MW0112-00001	The maximum water allocation that may be carried over in the account for this access licence from one water year to the next water year is: A. a volume equal to 100 % of the share component of the licence, or B. 1 ML/unit share of the share component of the licence.	Compliant	No water has been drawn from the WALs over the reporting period.
MW0036-00002	The volume of water taken in any three (3) consecutive water years from 1 July 2012 must be recorded in the logbook at the end of those three water years. The maximum volume of water permitted to be taken in those years must also be recorded in the logbook.	Compliant	
MW0605-00001	Water must be taken in compliance with the conditions of the approval for the nominated work on this access licence through which water is to be taken. This restriction does not apply if water is to be taken: A. from an off-river pool, an in-river pool, a runoff harvesting dam or an in-river dam pool, or B. from the following Weirs: Maldon, Douglas Park, Menangle, Camden, Sharpes, Cobbity, Mount Hunter Rivulet, Brownlow Hill, Theresa Park and Wallacia.	Compliant	
MW0080-00012	From 1 July 2011, water must not be taken from the Upper South Creek Management Zone of the Hawkesbury and Lower Nepean Rivers Water Source when flows are in the Very Low Flow Class, which means that the flow is 0.2 ML/day or less at South Creek at the Great Western Highway gauge [No. 212048]. This restriction does not apply if water is to be taken from a runoff harvesting dam or an in-river dam pool.	Compliant	
MW0670-00001	Water must only be taken if there is visible flow in the water source at the location where water is to be taken. This restriction does not apply if water is to be taken: A. from an off-river pool, an in-river pool, a runoff harvesting dam or an in-river dam pool, or B. from the following Weirs: Maldon, Douglas Park, Menangle, Camden, Sharpes, Cobbity, Mount Hunter Rivulet, Brownlow Hill, Theresa Park and Wallacia.	Compliant	
MW0078-00004	In the Upper South Creek Management Zone of the Hawkesbury and Lower Nepean Rivers Water Source, if the flow is less than 0.2 ML/day at South Creek at the Great Western Highway gauge [No. 212048] for a period of 24 or more consecutive hours, then there must be a minimum flow of 0.2 ML/day at that gauge for at least 24 hours before water can be taken.	Compliant	
MW0004-00002	From 1 July 2012, the total volume of water taken in any three (3) consecutive water years under this access licence must not exceed a volume which is equal to the lesser of either: A. the sum of: i. water in the account from the available water determinations in those 3 consecutive water years, plus ii. water in the account carried over from the water year prior to those 3 consecutive water years, plus iii. any net amount of water assigned to or from this account under a water allocation assignment in those 3 consecutive water years, plus iv. any water re-credited by the Minister to the account in those 3 consecutive water years, or B. the sum of: i. the share component of this licence at the beginning of the first year in those 3 consecutive water years, plus ii. the share component of this licence at the beginning of the second year in those 3 consecutive water years, plus iii. the share component of this licence at the beginning of the third year in those 3 consecutive water years, plus iv. any net amount of water assigned to or from this account under a water allocation assignment in those 3 consecutive water years, plus v. any water re-credited by the Minister to the account in those 3 consecutive water years.	Compliant	
MW2338-00001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.	Compliant	
MW2337-00001	The following information must be recorded in the logbook for each period of time that water is taken: A. date, volume of water, start and end time when water was taken as well as the pump capacity per unit of time, and B. the access licence number under which the water is taken, and C. the approval number under which the water is taken, and D. the volume of water taken for domestic consumption and/or stock watering.	Compliant	
MW2339-00001	A logbook must be kept, unless the work is metered and fitted with a data logger. The logbook must be produced for inspection when requested by the relevant licensor.	Compliant	
MW0051-00002	Once the licence holder becomes aware of a breach of any condition on this access licence, the licence holder must notify the Minister as soon as practicable. The Minister must be notified by: A. email: water.enquiries@dpi.nsw.gov.au, or B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.	Not Triggered	

Bringelly Brickworks Extension Project

Water Approval 10CA104657 for WAL26259

Compliant

Non Compliant

Not Triggered

A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken,

Condition	Commitment	Details of compliance status	Comments
	Water supply works and water use, expiry 20/4/2026; Hawkesbury and Lower Nepean Rivers Water Source; Diversion works - pumps; 80mm centrifugal pump; irrigation purpose	Compliant	
MW0655-00001	Any water supply work authorised by this approval must take water in compliance with the conditions of the access licence under which water is being taken.	Compliant	No water has been drawn from the WALs over the reporting period.
MW0911-00001	Before water is taken through the water supply work authorised by this approval, visible flow in the water source at the location at which water is proposed to be taken must be confirmed. If a logbook is required to be kept: A. confirmation that water may be taken, and B. the method of confirmation, such as visual inspection, internet search must be recorded in the logbook.	Compliant	
MW2435-00001	Water must be taken through the approved metering equipment installed on the water supply work authorised by this approval.	Compliant	
MW0080-00012	From 1 July 2011, water must not be taken from the Upper South Creek Management Zone of the Hawkesbury and Lower Nepean Rivers Water Source when flows are in the Very Low Flow Class, which means that the flow is 0.2 ML/day or less at South Creek at the Great Western Highway gauge [No. 212048]. This restriction does not apply if water is to be taken from a runoff harvesting dam or an in-river dam pool.	Compliant	
MW2338-00001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.	Compliant	
MW2336-00001	The purpose or purposes for which water is taken, as well as details of the type of crop, area cropped, and dates of planting and harvesting, must be recorded in the logbook each time water is taken.	Compliant	
MW2337-00001	The following information must be recorded in the logbook for each period of time that water is taken: A. date, volume of water, start and end time when water was taken as well as the pump capacity per unit of time, and B. the access licence number under which the water is taken, and C. the approval number under which the water is taken, and D. the volume of water taken for domestic consumption and/or stock watering.	Compliant	
MW2339-00001	A logbook must be kept, unless the work is metered and fitted with a data logger. The logbook must be produced for inspection when requested by the relevant licensor.	Compliant	
MW0482-00001	Where a water meter is installed on a water supply work authorised by this approval, the meter reading must be recorded in the logbook before taking water. This reading must be recorded every time water is to be taken.	Compliant	
MW0051-00001	Once the approval holder becomes aware of a breach of any condition on this access licence, the licence holder must notify the Minister as soon as practicable. The Minister must be notified by: A. email: water.enquiries@dpi.nsw.gov.au, or B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.	Not Triggered	
MW3860-00001	A. When a water supply work authorised by this approval is no longer to be used permanently, the approval holder must: i. notify the relevant licensor in writing of the intention to decommission the work at least 90 days before the start of decommissioning, and ii. decommission the work, unless the approval holder receives notice in writing from the Minister within 60 days of notifying DPI Water requiring that the work is not to be decommissioned or be decommissioned in accordance with specific requirements. B. Within 60 days of the work being decommissioned, the approval holder must notify the relevant licensor in writing that the work has been decommissioned.	Not Triggered	
DK0888-00001	Any water supply work authorised by this approval used for the purpose of conveying, diverting or storing water must be constructed or installed to allow free passage of floodwaters flowing into or from a river or lake.	Compliant	
DK0878-00001	A. The construction, installation or use of the water supply work authorised by this approval must not cause or increase erosion to the channel or bank of the watercourse. B. If erosion is observed, the area must be stabilised with grass cover, stone pitching or any other material that will prevent any further occurrence of erosion.	Compliant	
DS2349-00001	The approval holder must make all reasonable efforts not to allow any used water to discharge, by any means including surface or subsurface drains or pipes, into or onto: - any adjoining public or crown road; - any other person's land; - any Crown land; - any river, creek or watercourse or aquifer.	Compliant	

Bringelly Brickworks Extension Project

Water Approval 10CA104630 for WAL26257 & WAL25987

Compliant

Non Compliant

Not Triggered

A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken,

Condition	Commitment	Details of compliance status	Comments
	Water supply works and water use, expiry 18/6/2025; Hawkesbury and Lower Nepean Rivers Water Source; Diversion works - pumps and Storages; 80mm centrifugal pump and Bywash Dam; irrigation purpose	Compliant	
MW0655-00001	Any water supply work authorised by this approval must take water in compliance with the conditions of the access licence under which water is being taken.	Compliant	No water has been drawn from the WALs over the reporting period.
MW0911-00001	Before water is taken through the water supply work authorised by this approval, visible flow in the water source at the location at which water is proposed to be taken must be confirmed. If a logbook is required to be kept: A. confirmation that water may be taken, and B. the method of confirmation, such as visual inspection, internet search must be recorded in the logbook.	Compliant	
MW2338-00001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.	Compliant	
MW2336-00001	The purpose or purposes for which water is taken, as well as details of the type of crop, area cropped, and dates of planting and harvesting, must be recorded in the logbook each time water is taken.	Compliant	
MW2337-00001	The following information must be recorded in the logbook for each period of time that water is taken: A. date, volume of water, start and end time when water was taken as well as the pump capacity per unit of time, and B. the access licence number under which the water is taken, and C. the approval number under which the water is taken, and D. the volume of water taken for domestic consumption and/or stock watering.	Compliant	
MW2339-00001	A logbook must be kept, unless the work is metered and fitted with a data logger. The logbook must be produced for inspection when requested by the relevant licensor.	Compliant	
MW0482-00001	Where a water meter is installed on a water supply work authorised by this approval, the meter reading must be recorded in the logbook before taking water. This reading must be recorded every time water is to be taken.	Not Triggered	
MW0051-00001	Once the approval holder becomes aware of a breach of any condition on this access licence, the licence holder must notify the Minister as soon as practicable. The Minister must be notified by: A. email: water.enquiries@dpi.nsw.gov.au, or B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.	Not Triggered	
MW3860-00001	A. When a water supply work authorised by this approval is no longer to be used permanently, the approval holder must: i. notify the relevant licensor in writing of the intention to decommission the work at least 90 days before the start of decommissioning, and ii. decommission the work, unless the approval holder receives notice in writing from the Minister within 60 days of notifying DPI Water requiring that the work is not to be decommissioned or be decommissioned in accordance with specific requirements. B. Within 60 days of the work being decommissioned, the approval holder must notify the relevant licensor in writing that the work has been decommissioned.	Not Triggered	
DK0888-00001	Any water supply work authorised by this approval used for the purpose of conveying, diverting or storing water must be constructed or installed to allow free passage of floodwaters flowing into or from a river or lake.	Compliant	
DK0871-00001	The water supply work authorised by this approval must be constructed and maintained in a way that will: A. ensure the work's safe construction and operation, and B. prevent the possibility of damage being caused by the work, or resulting from the work, to any public or private interest.	Compliant	
DK0878-00001	A. The construction, installation or use of the water supply work authorised by this approval must not cause or increase erosion to the channel or bank of the watercourse. B. If erosion is observed, the area must be stabilised with grass cover, stone pitching or any other material that will prevent any further occurrence of erosion.	Compliant	
DK0233-00078	The level of the crest of the bywash of the dam must be fixed at not higher than 1.99 m below the level of a benchmark established on a box tree on the right bank of the watercourse near the work and particulars of which are retained in the office of the relevant licensor.	Compliant	
DK1217-00001	The location of the dam(s) as shown on a plan retained in the office of the relevant licensor shall not be altered.	Compliant	
DS2349-00001	The approval holder must make all reasonable efforts not to allow any used water to discharge, by any means including surface or subsurface drains or pipes, into or onto: - any adjoining public or crown road; - any other person's land; - any Crown land; - any river, creek or watercourse or aquifer.	Compliant	

Appendix G

Production Data Submission for DRE



► Change Password

► List of Clients

Royalty online services

Welcome Joe Gauci

Logout

Your password will expire on Sat 7 January 2023 11:31:24 am

Confirmation

Client name:	BRINGELLY CLAY MINE
Client ID:	140207573
RIMS ID:	323188
Reference number:	778204018170
Period:	1 July 2021 - 30 June 2022
Lodgment date:	18 July 2022
Return due date:	31 July 2022
Royalty amount due:	\$11,571.00

Appendix H Drivers Code of Conduct

DOCUMENT CONTROL	
Doc No. BRK-BG-3.10.7-P05	Version: V1
Reason for Revision: Minor change – in line with consent	
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Bringelly Brickworks Drivers Code of Conduct

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GLOSSARY AND ABBREVIATIONS

CoA	Conditions of Approval for SSD_5684, including Modification 1
DCOC	Drivers Code of Conduct
DP&E	Department of Planning & Environment
EMS	Environmental Management Strategy
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
PGH	<i>PGH Bricks and Pavers</i>
RMS	NSW Roads & Maritime Services
SSD	State Significant Development
TMP	Transport Management Plan

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1 INTRODUCTION

1.1 Requirement for Drivers Code of Conduct

This Driver's Code of Conduct (DCOC) provides PGH Bricks and Pavers with guidance on how heavy vehicle drivers should operate when exiting the Bringelly Brickworks and entering the public road network. This plan must be read in conjunction with the Transport Management Plan (TMP) and forms part of the Environmental Management Strategy (EMS) for the Bringelly Brickworks.

The DCOC has been prepared following the approval of the Bringelly Brickworks Extension Project (SSD_5684) on 3 March 2015 and a Section 96(1A) modification application (MOD1), which was determined on 31 October 2016.

This document has been prepared in Accordance with the Department of Planning and Environment (DP&E) requirement for the compilation of a Driver's Code of Conduct (**Section 2.1**).

1.1.1 Report Scope

To meet the objectives prescribed by DP&E in **Table 1** above, the DCOC will focus on achieving the following:

- Legal requirements;
- Traffic management measures to be implemented during the project lifespan;
- Incident investigation;
- Roles and responsibilities;
- Competence training and awareness; and
- Document review.

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2 LEGAL REQUIREMENTS

2.1 Environmental Planning and Assessment Act 1979

The Bringelly Brickworks was authorised by DP&E with the issuance of the Development Consent (SSD_5684) in 2015 and modified in October 2016. Condition of Authorisation (COA) 15 of the Development Consent requires that the TMP must:

Table 1 Development Consent – Applicable Conditions of Authorisation

Condition		Description
15	C	Include a Code of Conduct for heavy vehicle drivers that addresses: <ul style="list-style-type: none"> • Travelling speeds; • Procedures to minimise noise including a regular Truck Noise Auditing Program; • Procedures to minimise diesel exhaust emissions; • Instructions to avoid grouping or convoying of trucks; • Procedures to ensure that drivers adhere to the designated haulage routes and the haulage hours permitted under this consent; • Instructions to drivers not to overtake each other on the haulage route, as far as practicable, and to maintain appropriate distances between vehicles; and • Instruction to drivers to be properly safety conscious and to strictly obey all traffic regulations, particularly in relation to school zones along Greendale Road; and
	D	Describe the measures that would be put in place to ensure compliance with the drivers' Code of Conduct and include a program to monitor the effectiveness of the implementation of these measures.

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3 CODE OF CONDUCT

The DCOC provides detail of controls implemented to minimise impacts on road users and the surrounding community. Where feasible, clauses will be entered in conditions of employment, or in contracts, that drivers' must adhere to the Drivers' Code of Conduct as new contracts are drafted or renewed.

3.1 Legal Compliance

- Obey all the statutory laws and regulations;
- Ensure their vehicle complies with relevant State legislation in relation to roadworthiness and modifications;
- Not drive whilst under the influence of alcohol, drugs, nor any medication which may affect their ability to drive;

3.2 Driver Inductions

- All heavy vehicle drivers operating vehicles on site at Bringelly Brickworks will be inducted before being authorised to provide services for PGH Bricks and Pavers.
- All drivers must hold current licenses appropriate to the State they are operating the heavy vehicle in. Appointed transport operators will be required to maintain current registers that will be reviewed by PGH during scheduled audits.

3.3 Vehicle Safety and Maintenance

Appointed transport operators must maintain a Maintenance Management Systems that includes as a minimum:

- A Daily Check for each vehicle when it is in use.
- Provision to record and report vehicle faults on both the hauling and trailing equipment.
- Provide for the identification, assessment and action on reported faults.
- Include Periodic Maintenance Schedules with identified service periods that describe the tasks to be completed.
- Maintain documented evidence to demonstrate the effective operation of the Maintenance Management Standards.
- The authorities, responsibilities and duties of all positions involved in the management, operation, administration, participation and verification of the Maintenance Management System.
- Annual internal review schedule to verify that all results and activities comply with the systems policies, procedures and instructions.
- Identifies training needs of those that hold positions of responsibility under the Maintenance Management System and details the training plan to ensure responsible persons are trained in and familiar with the specific policy procedure and instruction they are to carry out.

3.4 Fitness for Work and Driving Practices

- Drivers must be assessed as medically fit to operate heavy vehicles, driver's fitness for work will be validated through the application of a Fitness for Work Declaration signed by the Director of the

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Transport company. If a medical condition is encountered, which may affect a driver's ability to operate the heavy vehicle safely the Transport Operator must advise PGH.;

- Drivers must operate vehicles in a considerate manner and respect the rights of others to use and share roads.
- Drivers must comply with Road and Maritime Services (RMS) and/or sites speed limits, load limits, driving hours, signage and any communication protocols;
- Drivers are responsible for the identification and adherence to changes in speed limits on approaching public roads (e.g. Greendale Road in proximity of Bringelly Public School);
- Within the confines of fatigue management and scheduling, dispatch and arrivals during peak pickup/drop off times at Bringelly Public School will be avoided.
- Drivers must report all vehicle accidents resulting in injury/or damage to property to the police and their employer, where these incidents have the potential to impact PGH Bricks and Pavers incident notification and investigation outcome must be provided to PGH Transport or Raw Materials Manager.
- All hazards and near miss incidents that occur on site must be reported to the site Operations Manager;
- Drivers must ensure all loads are securely fastened and covered as appropriate. To assist drivers PGH has a certified load restraint system available. If you are using a PGH certified system, ensure you have copies of the system and have received training.
- Observations of drivers' behaviour and compliance with this code of conduct will be assessed randomly during safety walks and observations undertaken by the plant manager or delegate.
- Any complaints regarding drivers or truck noise will be dealt with through the PGH Complaints Management Procedure;
- Drivers will avoid grouping or convoying of trucks;
- Drivers will adhere to designated haulage route and the haulage hours permitted under the consent;
- Drivers will be instructed to not overtake each other on the haulage route and to maintain appropriate distances between vehicles;
- Drivers will adhere to the NSW RMS Chain of Responsibility (CoR);
- All heavy vehicles exiting the Site are to travel east from the Site along Greendale Road to The Northern Road and/or Bringelly Road; and
- Drivers are to keep the vehicle clean and clear tail gates of debris after exiting the extraction or stockpile area.

3.5 Congestion

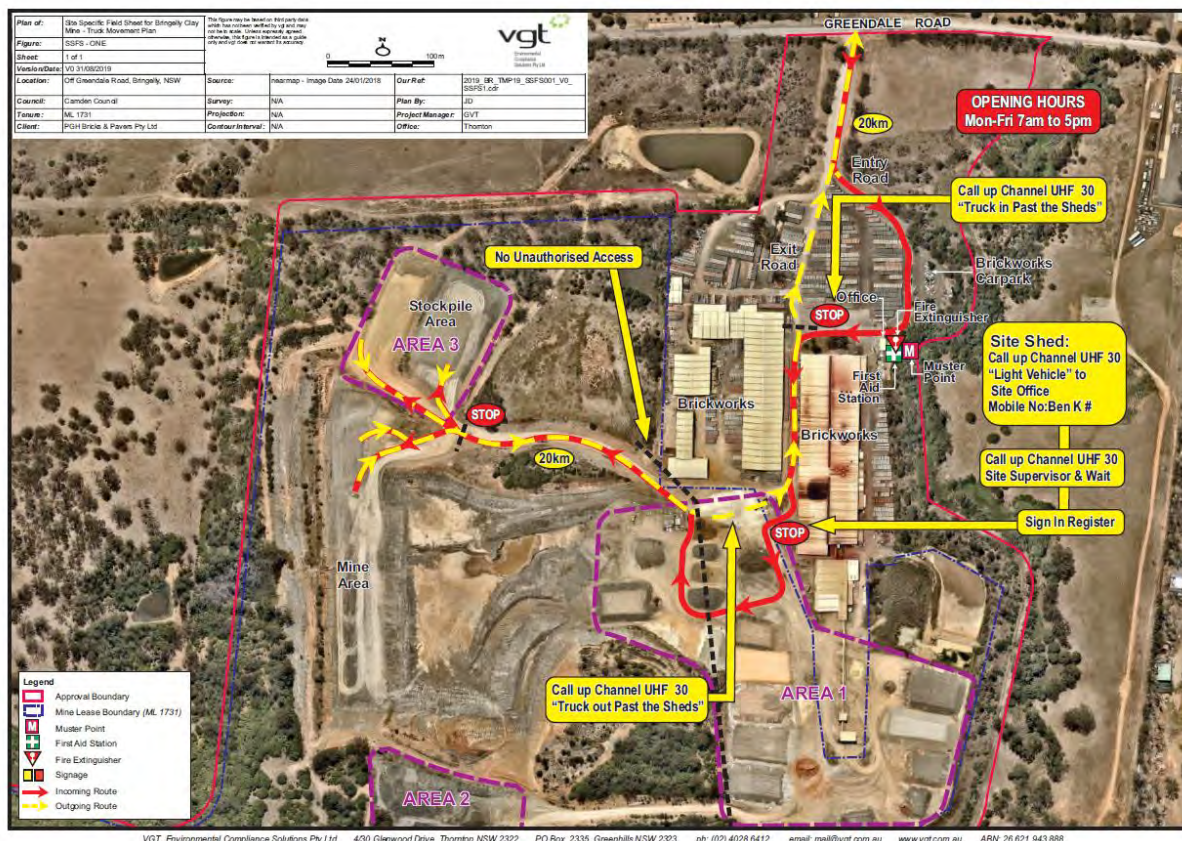
- Heavy vehicles are not permitted to queue at the Site access (Greendale Road) before 6:00AM;
- Heavy vehicles must not overtake each other on the public road network, as far as practically possible.
- Vehicles accessing and departing the Site will be staged and staggered to ensure that congestion is not experienced on the roads near the Site.

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3.6 Designated Haulage Routes

- Entry to site is always in the forward direction. Finished Goods brick trucks are to remain in the brick yard.
- Raw Materials trucks must use radio communication and ensure wheels are clean before leaving site. There is a high pressure washer available for assisting in this task.



3.7 Noise Monitoring Program

- Horns will not be used unless it forms part of an anti-theft device or is necessary to warn other road users or animals of the vehicles approach.
- Heavy vehicles should limit the use of engine breaks (as far as practically possible) to reduce noise levels. This system will be avoided near schools and hospitals.
- Modifications to the vehicle or exhaust systems, that increase noise levels, will not be permitted.
- Vehicle sound systems will be operated sensitively to ensure that noise impacts are not imparted to the community.
- Mufflers will be installed to reduce engine break noise.
- Unnecessary, engine revving, acceleration and breaking will be avoided.
- The inspection of vehicle exhaust systems will be included in the service schedule, to ensure that it is in good condition.
- Noisy engine breaks will be disengaged / turned off in built up areas.

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- Vehicles should be serviced regularly to ensure that optimal operation is achieved. Vehicle service documentation will be verified through pre-qualification and scheduled audits.
- Vehicles that are found to operate noisily (old or in poor condition), but cannot be fixed with the mitigation measures above, will be removed from site and replaced with newer and/or more efficient vehicles.

3.8 Diesel Exhaust Emissions

- Vehicles will be serviced regularly, by suitably accredited personnel, to ensure that they operate as cleanly and efficiently as practically possible.
- Where vehicles are found to be operating inefficiently and emitting pollutants, a diesel emission reducing device (retrofit) can be adopted. Emissions passing through the oxidation catalyst will help further reduce harmful emission levels.

3.9 Operating Conditions

The key regulated operating conditions that drivers must be aware of at the Bringelly site are listed below:

- All development related heavy vehicles enter and exit the site in a forward direction;
- All laden vehicles entering or exiting the site have their loads covered (with the exception of vehicles carrying bricks);
- All laden vehicles that have accessed the extraction and/or stockpile areas are cleaned of sand and other material that may fall on the road, before leaving the site;
- All heavy vehicles exiting the site travel east of the site along Greendale Road to The Northern Road and/or Bringelly Road;
- The dispatch of laden trucks is avoided during the peak drop-off and pick-up times at the Bringelly Public School to the greatest extent practicable, particularly prior to the upgrade of Greendale Road/Bringelly Road intersection by the RMS; and
- No trucks queue at the entrance before 6am.

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4 DCOC COMPLIANCE MONITORING

4.1 Driver Register and Complaints Management

PGH Bricks and Pavers will maintain a register of all staff and sub-contractors who have been inducted and understand the requirements of the Drivers Code of Conduct.

The following procedure will be implemented to effectively administer this document:

- Transport Operators will read, agree to, communicate the requirements of this document with their drivers and sign the Drivers Code of Conduct Sign off Sheet (**Appendix A**);
- A copy of the DCOC will be made available on the company website.
- A procedure for members of the public to report alleged unsafe driving practices or breaches of the DCOC will be published on the company website.
- If a complaint is received, PGH will initiate an investigation into this matter. Appropriate actions, for matters pertaining to complaints established against this project, may include:

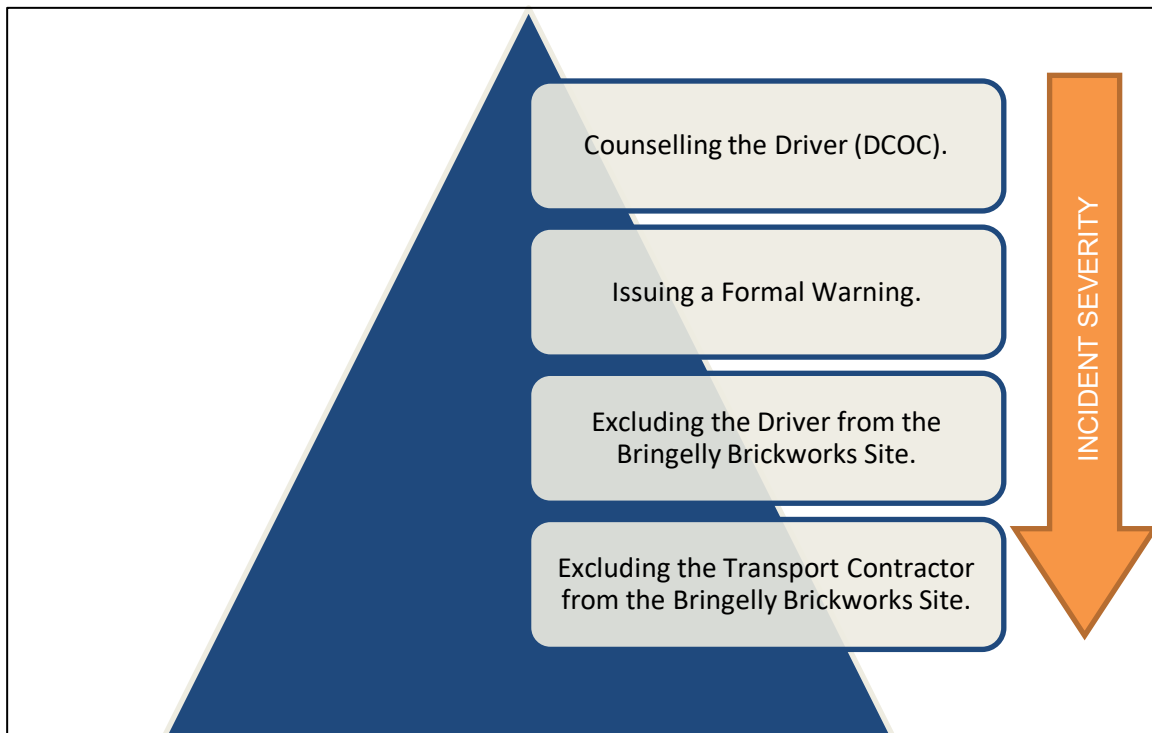


Figure 1 Hierarchy of Disciplinary Actions to be taken by PGH

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5 INCIDENT INVESTIGATION

5.1 Scope of Investigation

There is the potential for traffic accidents and incidents when heavy vehicles, transporting PGH materials to and from site, interact with other vehicles on public road networks. Additionally, there are similar risks internally, within the Site, during the operation and movement of vehicles, plant and machinery.

In the event of a traffic accident, incident, or near miss reported by PGH staff, contractors or the public, PGH will commission an investigation to identify the root cause of the incident and establish whether the DCOC has been breached. The scope of the investigation will be to:

- Determine what occurred at the time of the incident;
- Establish the root cause of the incident;
- Clarify factors leading to the incident; and
- Determine whether appropriate controls were in place and/or implemented to prevent the incident.

The investigation will collate corrective and/or preventative actions to be assigned to appropriate PGH personnel for implementation. Actions will be communicated through relevant planning meetings and toolbox talks.

If required, the DCOC will be amended to reflect the outcome and requirements of the investigation, and all drivers will be briefed on the amendment(s) and will sign an updated register to confirm attendance and understanding of the code. Ongoing monitoring will be conducted to establish and report on the effectiveness of the corrective and/or preventative actions.

The DCOC will be maintained, managed and stored in terms of Environmental Management Strategy (EMS) requirements.

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6 ROLES AND RESPONSIBILITIES

Table 2 Roles and Responsibilities

Role	Responsibility
Executive General Manager.	<ul style="list-style-type: none"> Ensure that adequate resources are available to implement the DCOC effectively.
Transport and Raw Materials Manager	<ul style="list-style-type: none"> Ensure the implementation of the DCOC. Ensure that employees are competent by incorporating the DCOC into Drivers Induction.
All signatories of the DCOC.	<ul style="list-style-type: none"> Adhere to the DCOC when operating on behalf of PGH.

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7 REVIEW

7.1 Continuous Improvement

Continuous improvement of the DCOC will be achieved in accordance with Section 10 of the EMS, through the ongoing evaluation of driver performance against the policies, objectives and targets of this document.

The continuous improvement process is designed to:

- Identify areas of opportunity for improvement of driver performance;
- Determine the cause(s) of non-conformances and deficiencies;
- Ensure that the DCOC remains a dynamic document that is updated and amended to reflect and implement changes in legislation, including corrective and preventative action determined through investigative processes;

7.2 DCOC Update and Amendment

The processes described in Sections 9 and 10 of the EMS may result in the need to update or revise this DCOC.

The approval of updates or revisions to the DCOC will need to be considered in accordance with Section 11.2 of the EMS.

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8 APPENDIX A – DRIVERS CODE OF CONDUCT SIGN-OFF SHEET

Bringelly Brickworks Drivers Code of Conduct Sign-off Sheet	
Name:	
Mobile Number:	
Transport Company:	
Address:	
Company Contact Number:	
Declaration:	
<ul style="list-style-type: none"> I have been provided with a copy of the Driver’s Code of Conduct for the Bringelly Brickworks. I have read and understood this document, and when operating vehicles on behalf of PGH, agree to abide by the conditions contained within. 	
Signature:	
Date:	
*Please note that a copy of this form must be returned to PGH to confirm compliance.	

Appendix I

Resource Regulator

TAP

PGH Bricks & Pavers Pty Ltd
59-67 Cecil Road
Cecil Park NSW 2178
Attn: Joe Gauci

By email: jgauci@pghbricks.com.au

Dear Joe Gauci

Bringelly Clay Mine

Targeted Assessment Program – Landform Establishment

Overview

The NSW Resources Regulator within the Department of Regional NSW (the Regulator) is responsible for the administration and enforcement of the *Mining Act 1992* (the Act) and associated Regulations.

Our compliance and enforcement strategy involves targeted assessment programs (TAPs) at mines across NSW. TAPs have been developed to focus on [critical controls](#) across mine sites to ensure measures have been identified and implemented to facilitate sustainable rehabilitation outcomes. One of the primary aims of the TAP is to assist industry with continual improvement in rehabilitation outcomes.

Further information regarding our approach to conducting a TAPs can be found at <https://www.resourcesregulator.nsw.gov.au/environment/compliance>.

Scope of assessment

On 15 April 2021, a TAP was conducted at the Bringelly Clay Mine (the mine).

The assessment focused on how the final approved landform is being established to achieve sustainable rehabilitation outcomes. This includes management of any problematic waste material that requires containment within the rehabilitated landform.

The entire mine complex was not inspected and as such the observations outlined below do not reflect compliance or otherwise with the Act, the *Mining Regulation 2016*, the conditions of authorisation or relevant approvals granted by the Department.

Observations

Based on discussions held with the mine staff, documents presented and field inspections undertaken as part of the assessment, the following key observations were noted by the Regulator:

- Risk Assessment - The mine has not adequately identified the range of risks associated with landform establishment and appropriate controls are not in

place to facilitate sustainable rehabilitation outcomes. In particular it was observed that the risk assessment in the MOP did not adequately identify controls for managing low pH materials which may affect the final landuse outcome.

- Waste material characterisation - whilst no final landform work has yet been conducted, it was unclear how ongoing waste and soil material characterisation is undertaken. Although some previous soil testing data may be available, there does not appear to be a characterisation program in place for waste and soil materials as they become available.
- Final landform design - the Resources Regulator notes that the conceptual final landform outlined in the approved Bringelly Development Consent may not be reflective of a suitable and contemporary final land use outcome for this area. It is also noted that Condition 25 of the Bringelly Development Consent requires the regular revision and submission of a Final Land Use Options Plan (FLUOP) in consultation with the Resources Regulator (formerly DRE).

Recommendations

In transitioning to the Operational Rehabilitation Reforms and as part of preparing the associated documentation required by the proposed regulation, it is the expectation of the Resources Regulator that a program will be developed to address the recommendations below:

1. Undertake a revised risk assessment to identify all risk and risk controls (treatments) associated with mine rehabilitation and closure. The risk assessment should include information on how control effectiveness is assessed, and how updates to the risk assessment are undertaken as a result. The risk assessment needs to be specific to actual causes and controls used rather than listing management plans only. The risk assessment should include input from a suitably qualified team of appropriately skilled people representing a cross-section of the workforce and activities undertaken at the mine. It is recommended that a suitably qualified landform design specialist is involved in the next rehabilitation risk assessment review process. Guidance on the range of risks to consider can be found on the Regulator's website (<https://www.resourcesregulator.nsw.gov.au/environment/compliance/regulating-risks-to-rehabilitation>)
2. Material characterisation practices should be reviewed to ensure an adequate understanding of the geochemical properties of waste material so that specialist handling and management is implemented at extraction and/or processing. The mine should also undertake regular testing of all waste and soil materials to confirm their geochemical properties. Triggers at which specialist handling and management practices are required, are to be clearly defined. These requirements should be formalised in an appropriate management plan.
3. The Resources Regulator would encourage PGH to engage regularly with DPIE and the Regulator during the development of the FLUOP to ensure appropriate options are identified to assist and direct the final rehabilitation effort.

The implementation of the program to address these recommendations will be subject to future Targeted Assessment Programs assessments and other periodic assessments undertaken by the Regulator.

Inspection Comment

During the site inspection, two (2) significant tunnel erosion areas were observed on the western side of the pit shell. These areas appear to be the location of concentrated water flow from off-site inflows as well as on-site sources. Whilst it was observed that sediment was being captured in-pit, these erosion areas have the potential to 'cut-back' and de-stabilise the upper pit shell and affect the soil resource in advance of the current mining area.

It is recommended that PGH conduct a review of the surface water management in this area and determine the cause of this ongoing problem. A suitable remedial action plan should be developed in consultation with neighbouring properties to ensure excessive water ponding and/or rapid water movement in this area is reduced, controlled or eliminated.

Compliance monitoring

You should note that the Regulator intends to actively monitor and enforce rehabilitation obligations at the mine. Further information regarding mine rehabilitation obligations is available at <http://www.resourcesregulator.nsw.gov.au>.

If you require additional information, please contact the Resources Regulator on 1300 814 609 or via email at nswresourcesregulator@service-now.com.

Yours sincerely,

Greg Kininmonth
Manager Environmental Operations
Resources Regulator

7 May 2021

Appendix J Draft Risk Assessment

1 Rehabilitation Risk Assessment

Identification of hazards and a risk assessment and identification of risk controls has been undertaken and is summarised below.

Table 1. General Rehabilitation Risk Assessment

Hazard	Risks	Risk Controls	Details	Risk Rating	Control Strategy Required (Yes/No/Not Applicable)
Administrative failures.	Insufficient skills and experience of rehabilitation personnel.	Only experienced contractors will be engaged to conduct rehabilitation activities.			
	Lack of clearly defined responsibilities.	Responsibilities and roles for rehabilitation will be defined in the contractual arrangements with contractors and Proponent.			
	Insufficient funding for or prioritisation of rehabilitation activities.	Proponent will ensure that sufficient funds are available to conduct rehabilitation activities. Note, a rehabilitation bond is held over the site and will be reviewed annually for the life of the mine.			
Erosion	Harm to rehabilitation works.	Slopes to be reduced.	Slopes to be reduced to a maximum of 3H:1V.		
		Reduce slopes as far as possible In-Pit.	Consider benched mining design on highwalls.		
		Reduce slope lengths.	Slope Lengths shall not exceed 80 metres before being broken by earth banks or similar.		
		Reduce track slopes.	Slopes of major tracks are to be <10 degrees or have cross drains/banks installed. Where unsuitable soils are present, tracks are to be stabilised with crushed bricks, concrete, gravel or similar.		
		Roughen exposed surfaces.	Track walk or lightly rip exposed surfaces to encourage infiltration of rainwater.		

Hazard	Risks	Risk Controls	Details	Risk Rating	Control Strategy Required (Yes/No/Not Applicable)
		Achieve ground coverage factor of at least 0.05 (70%).	Coverage to be achieved via vegetation, mulch or similar within 30 days of completion of works.		
		Topsoil stockpile management.	Slopes no greater than 3H:1V. Stockpile height no greater than 2 metres. No stockpiles to be constructed in areas of concentrated flows.		
		Overburden stockpile management.	Slopes no greater than 3H:1V. Stockpile height no greater than 4.5 metres. No stockpiles to be constructed in areas of concentrated flows.		
Sediment Entrainment	Entrained sediment harms downstream environments	Runoff from design storm to be contained in-site.	Sediment dams designed for 90 th % 5-day storm event. Drains to be designed for 1 in 10-year design storm. Spillways to be designed for 1 in 100-year design storm. Receiving capacity of sediment dams to be maintained by; <ul style="list-style-type: none"> • Reuse of water on-site for dust suppression; and • Water to be pumped to pit sump if capacity not sufficient to contain design storm prior to storm events. • Pit maintained to have capacity to contain a volume greater than the design storm. 		
		Surface water captured on exposed surfaces to be directed to sediment dams.	Sediment dams to be constructed for each catchment in the disturbed area. Drains to be installed to direct dirty surface water to sediment dams.		
		Silt fences installed.	Installation of silt fences around disturbed area as appropriate. No silt fences to be constructed in areas of concentrated flows.		
		Topsoil stockpile management	Slopes no greater than 3H:1V. Stockpile height no greater than 2 metres. No stockpiles to be constructed in areas of concentrated flows.		
		Overburden stockpile management.	Slopes no greater than 3H:1V. Stockpile height no greater than 4.5 metres. No stockpiles to be constructed in areas of concentrated flows.		

Hazard	Risks	Risk Controls	Details	Risk Rating	Control Strategy Required (Yes/No/Not Applicable)
Surface Water Quality	Decrease in downstream water quality.	Monitoring.	Surface water quality monitoring will continue within Thompsons Creek, upstream and downstream of the site and within the mine pit and the Water Management Dams. All monitoring will be undertaken in accordance with Approved Methods for Sampling and Analysis of Water Pollutants in NSW (DEC 2004)		
		Reuse dirty water on site.	Dirty water to be reused for dust suppression.		
		Runoff from design storm to be contained in-site.	Sediment dams designed for 90 th % 5-day storm event. Drains to be designed for 1 in 10-year design storm. Spillways to be designed for 1 in 100-year design storm. Receiving capacity of sediment dams to be maintained by; <ul style="list-style-type: none"> • Reuse of water on-site for dust suppression; and • Water to be pumped to pit sump if capacity not sufficient to contain design storm prior to storm events. • Pit maintained to have capacity to contain a volume greater than the design storm. 		
		Surface water captured on exposed surfaces to be directed to sediment dams.	Sediment dam to be constructed for each catchment in the disturbed area. Drains to be installed to direct dirty surface water to sediment dams.		
		Separation of clean water and dirty water.	Upstream clean water to be diverted via diversion drains or bunds as far as possible.		
		Implement Surface Water Strategy.	Implement strategy as described in the Water Management Plan.		
		Geotechnical Stability In-Pit	Failure of In-Pit Slopes	Reduce slopes In-Pit.	Batter slopes with overburden material.
Benched mining on highwalls.					
Batter designs validated by qualified engineer.					
		Divert concentrated flows from entering the pit via highwalls as far as possible.	Clean water flows upslope of the pit will be diverted around the void i.e. avoid pooling of water above the highwalls. Where concentrated flows are unable to be diverted from entering the pit, drains and chutes to convey water to the pit floor will be in accordance with the Blue Book guidelines.		

Hazard	Risks	Risk Controls	Details	Risk Rating	Control Strategy Required (Yes/No/Not Applicable)
Groundwater Quality and Flows	Decrease in groundwater quality and changes in flows	Groundwater interaction will be minimised.	Pit floor will not be deeper than RL46 metres AHD.		
		Groundwater quality and depth monitoring.	Bores will be monitored monthly and if significant variations noted, an investigation will be undertaken.		
		Implement Groundwater Strategy.	Implement strategy as described in the Groundwater Management Plan.		
Wind Erosion	Rehabilitation areas impacted by wind erosion.	Air quality monitoring.	Air quality monitoring will be conducted in accordance with the Air Quality Management Plan.		
		Dust suppression.	Water cart to be engaged during mining, hauling and rehabilitation activities. During adverse conditions: <ul style="list-style-type: none"> Cease mining or hauling activities in adverse wind conditions: and Increase water cart frequency. 		
		Achieve groundcover factor of at least 0.05 (70% coverage) on areas of long-term inactivity.	Coverage to be achieved via vegetation, mulch or similar within 30 days of completion of works.		
Heritage	Harm to heritage items	Protection of existing heritage items/sites.	Site BB OS3 (outside of Mine Lease) to be avoided and protected by high visibility fencing with a 5-metre buffer. Consideration will be given to erosion and spoil movement near the site to avoid inadvertent impact The <i>Aboriginal Cultural Heritage Assessment Report</i> (2013) concluded that no further archaeological investigation of sites BB OS1 and BB OS4 is necessary as they are of low archaeological significance. Site BB OS2 was assessed to be of low archaeological significance in the CHAR and no further archaeological investigation of that area is required prior to impacts taking place. An Aboriginal Site Impact Recording Form (ASIRF) has been submitted to the OEH AHIMS Registrar by Artefact Heritage detailing the procedure and results of the test excavation program and the assessment of Site BB OS2 as demonstrating low archaeological significance. The CHAR concluded that overall, the project site demonstrates low Aboriginal cultural heritage significance.		
		Protection of unexpected heritage items.	In the event that unexpected Aboriginal objects, sites or places are discovered, DPIE will be notified as soon as practicable after they are first identified.		
		Protection of human skeletal remains	The immediate vicinity will be secured to protect the find. The police will be notified immediately.		
		Consultant to review all PGH Sites			

Hazard	Risks	Risk Controls	Details	Risk Rating	Control Strategy Required (Yes/No/Not Applicable)
Bushfire	Harm to rehabilitation areas.	Limit access for deliberately lit fires.	Appropriate fencing is to be repaired and maintained. Locked access gate outside of operating hours. Visitors to sign in to the office.		
		Maintain fire breaks.			
Waste	Harm to rehabilitation areas.	Control on-site waste storage and removal	Typical construction waste materials include, excavated materials, bricks, pallets, timber, concrete, plasterboard, metals, packaging, and glass. These wastes will be collected in bins. Oily rags, filters, drums and waste batteries will be stored on a self-bunded pallet or similar. Wastes will be removed by licenced contractor.		
Loss/Damage of Conservation and Biodiversity Offset Area	Harm to the Conservation and Biodiversity Offset Area.	Protection of Conservation and Biodiversity Offset Area.	Fence to be erected and maintained around the Conservation and Biodiversity Offset Area. Signage to be installed to designate the Conservation and Biodiversity Offset Area.		

Hazard	Risks	Risk Controls	Details	Risk Rating	Control Strategy Required (Yes/No/Not Applicable)

Table 3. Decommissioning Phase Rehabilitation Risk Assessment

Hazard	Risks	Risk Controls	Details
Infrastructure	Retained roads and hardstands are not safe and stable.	All roads and hardstand areas to be retained for the final landuse will be reduced in width/size to that suitable for the final landuse.	Roads not required for final landuse are removed. Hardstand areas reduced to a size required for the final landuse. Slopes of major tracks are to be <10 degrees or have cross drains/banks installed. Where unsuitable soils are present, tracks are to be stabilised with crushed bricks, concrete, gravel or similar.
	Piezos		
	Utility services present a safety hazard.	Services not required for final landuse are disconnected.	Relevant services disconnected by qualified contractors
Hazardous Materials	Harm to environment due to hazardous materials.	No hazardous materials remain	All hazardous material removed

Hazard	Risks	Risk Controls	Details	Risk Rating	Control Strategy Required (Yes/No/Not Applicable)

Table 5. Growth Medium Establishment Phase Rehabilitation Risk Assessment

Hazard	Risks	Risk Controls	Details	Risk Rating	Control Strategy Required (Yes/No/Not Applicable)
Unsuitable physical and structural substrate	Substrate compacted	Substrates to be placed in such a way to maintain soil structure as far as possible.	<p>Minimise vehicle movement over the emplaced substrates.</p> <p>Substrates to be lightly ripped to permit water infiltration and air penetration prior to topsoil placement.</p>		
Subsoil and topsoil deficit	Insufficient on-site material available for growth medium.	Available topsoils are stockpiled appropriately and reused on the site.	<p>Records to include amounts of subsoil and topsoils stripped, locations and depths re-spread.</p> <p>If on-site topsoil/growth medium deficit is noted, material may be imported to assist in rehabilitation.</p>		
Substrate chemically unsuitable	Substrate inadequate to support revegetation or agricultural land capability.	Soil testing of soils / interburden and overburden material will be undertaken.	<p>Materials stockpiled on site will be tested for suitability prior to re-use in rehabilitation.</p> <p>Ameliorants will be applied to the materials as required.</p> <p>Importation of more suitable materials to be investigated and undertaken if deemed necessary.</p>		

Table 6. Ecosystem and Land Use Establishment Phase Rehabilitation Risk Assessment

Hazard	Risks	Risk Controls	Details	Risk Rating	Control Strategy Required (Yes/No/Not Applicable)
Lack of target seed availability and quality	Seeds unable to be sourced for rehabilitation.	Ecologist or other suitably qualified persons to be engaged to investigate suitable alternatives.			
Poor seed viability and dormancy	Insufficient germination of seeds to provide groundcover.	Certified seed stock to be utilised as far as possible in rehabilitation.			
Ant and Insect predation	Seed stock depleted by predation.	Protect sown seeds as far as possible.	Seeds to be lightly covered by soil when spread. Apply liquid tackifier if required to bind seeds to the surface. Keep soil moist by mulching or application of water to deter ants.		
Damage to seed through revegetation processes	Insufficient germination of seeds to provide groundcover.	Protect seeds from damage during rehabilitation.	Experienced contractors to be employed for rehabilitation works. Rehabilitation areas to be protected from vehicular traffic by fencing or similar barriers. Minimise handling of seeds during storage and use.		
Weed Infestation	Weed number overwhelm revegetation.	Regular inspection and spraying for weeds will be undertaken.	Monitoring confirms that after 2 years the non-native/non-target species (weeds) represents less than 20% of projected foliage cover or equivalent to surrounding vegetation not disturbed by mining activities.		
Inappropriate rehabilitation techniques	Failure of rehabilitation.	Ensure approved rehabilitation plan is followed.	Experienced contractors to be employed for rehabilitation works. Rehabilitation to be undertaken in accordance with the Rehabilitation Plan approved by DPIE and this plan. Proponent to supervise rehabilitation works to ensure compliance with any approved plans and best practice techniques are utilised.		
		Approved plans will be reviewed as required to ensure best practice techniques are employed.			
Adverse weather conditions	Failure of rehabilitation.	Revegetation will not be undertaken during periods of drought.			
		Rehabilitation works will not be undertaken during wet periods where soils and seed planting may be damaged.			

Hazard	Risks	Risk Controls	Details	Risk Rating	Control Strategy Required (Yes/No/Not Applicable)
		A water cart may be employed to water rehabilitation areas during dry or windy periods until vegetation is established.			
Inappropriate Seasonal timing of revegetation	Failure of rehabilitation.	Revegetation will preferably be planted during the spring and autumn seasons to avoid hot and dry weather conditions and winter frost.			

Table 7. Ecosystem and Land Use Development Phase Rehabilitation Risk Assessment

Hazard	Risks	Risk Controls	Details	Risk Rating	Control Strategy Required (Yes/No/Not Applicable)
Weather and climatic influences	Failure of rehabilitation.	A water cart may be employed to water rehabilitation areas during dry or windy periods until vegetation is established.			
		Reseeding of failed areas may be undertaken as advised by ecologist or suitably qualified person/s			
Long term water quality and quantity issues	Decrease in downstream water quality.	Mine personnel identify site of erosion and remediate through additional earthworks, soil works including addition of ameliorants, supplementary			

Hazard	Risks	Risk Controls	Details	Risk Rating	Control Strategy Required (Yes/No/Not Applicable)
		revegetation or other stabilisation method.			
	Groundwater seepage increases salinity in remaining water bodies.	Engage hydrologist and/or geotechnical engineer to assess impacts and remediation measures if required.			
Damage to rehabilitation	Grazing by native and domestic fauna adversely impacting on ecosystem development.	Rural fences and gates installed around disturbed area.	Feral animal controls will be implemented if required. Controlled grazing of domestic stock. Monitoring reports indicate the level of grazing is appropriate.		
	Deliberate vandalism of rehabilitation areas.	Rural fences and gates installed around disturbed area to prevent unauthorised access that may damage rehabilitation.	Monitoring indicates evidence of trespassing and/or damage to rehabilitation areas. Appropriate fencing, signage and bunding is to be repaired and maintained.		
	Bushfire damages rehabilitation areas.	Where possible regular slashing/mowing of pasture areas will be undertaken.			
	Weed number overwhelm revegetation.	Regular inspection and spraying for weeds will be undertaken.	Monitoring confirms that after 2 years the non-native/non-target species (weeds) represents less than 20% of projected foliage cover or equivalent to surrounding vegetation not disturbed by mining activities.		
	Insect and plant disease overwhelm revegetation.	Regular inspections to be undertaken and spraying undertaken as appropriate.			
	Insufficient establishment of target species and limited	Vegetation community does not become established on final landform affecting final	Suitably qualified ecologist or revegetation expert engaged to assess reasons for divergence of failure of endemic species	Sowing of additional seed mix for targeted species or additional species endemic to the pre-disturbance community. Use of Tubestock, seed and mulch mix or other application techniques. Soil amelioration works such as addition of fertiliser. Additional weed control activities (mechanical and/or chemical).	

Hazard	Risks	Risk Controls	Details	Risk Rating	Control Strategy Required (Yes/No/Not Applicable)
species diversity	land use and ecosystem.	establishment and recommend actions to ensure that the final vegetation community corresponds as closely as possible to the approved community.			
Erosion and failure of landform	Vegetation is unable to be established due to erosion.	Mine personnel identify site of erosion and remediate through additional earthworks, soil works including addition of ameliorants, supplementary revegetation or other stabilisation method.	If the above is unsuccessful, a suitably qualified professional in sediment and erosion control will be engaged to prepare and assessment report and recommendations to be implemented.		
	Visual inspection indicates that the final landform is the source of unacceptable levels of sedimentation downstream.	Mine personnel identify site of erosion and remediate through additional earthworks, soil works including addition of ameliorants, supplementary revegetation or other stabilisation method.	If the above is unsuccessful, a suitably qualified professional in sediment and erosion control will be engaged to prepare and assessment report and recommendations to be implemented.		

Appendix K Correspondence regarding Weed Management

Our Ref: NTCE0002315
ACES Ref: ASMT0002215

ISSUED TO

PGH Bricks & Pavers Pty Ltd (ACN: 68168794821)
59-67 Cecil Road
Cecil Park NSW 2178

Attention: The Proper Officer

DIRECTION

In accordance with section 240(1)(c) and Section 240(2A) of the *Mining Act 1992* (Mining Act), I, Greg Kininmonth, Manager Environmental Operations (Southern), an inspector duly appointed under Section 361 of the Mining Act, direct PGH Bricks and Pavers Pty Limited ("you") (ACN: 68168794821) to take the following steps to address the risk of there being an adverse impact on the environment caused by activities carried out under, or purportedly carried out at Bringelly Clay Mine (Mining Lease 1731). These risks are identified in the "background" section of this Direction. The measure(s) referred to below must be carried out by the dates specified below:

A) Appoint a suitably qualified person(s) to:

1. Conduct an assessment of the extent of the weed known as 'Mother of Millions' within the extent of ML1731.

2. Prepare a Weed Management Plan (WMP) which includes the findings of the assessment outlined in A) 1. above and includes a weed management/eradication plan for all weed species (including 'Mother of Millions') within the extent of ML1731. The WMP is to include reference to applicable noxious weed management requirements and timelines for implementation of proposed control measures. The WMP is to be submitted electronically to the Department via minres.environment@planning.nsw.gov.au no later than 5pm on **19 July 2019** to the satisfaction of the Director Compliance Operations.

B) Implement the WMP approved by the Director Compliance Operations.

C) Report on the progress of the implementation of the WMP in the Annual Rehabilitation Report required pursuant to the conditions of Mining Lease 1731.

D) Appoint a suitably qualified person(s) to:

1. Assess erosion and sediment control options for the "NW drainage channel".

2. Prepare a Sediment and Erosion Control Plan (SECP) which includes effective sediment and erosion control system for the NW drainage channel. The SECP is to include removal or replacement of the sediment control fencing within the NW drainage channel. The SECP is to be submitted electronically to the Department via minres.environment@planning.nsw.gov.au no later than 5pm on **19 July 2019** to the satisfaction of the Director Compliance Operations.

E) Include the SECP approved by the Director Compliance Operations in the Mining Operations Plan required pursuant to the conditions of Mining Lease 1731.

F) Implement the SECP approved by the Director Compliance Operations.

BACKGROUND

- A. The Department of Planning and Environment (the Department) has responsibility for the administration and enforcement of the Mining Act and associated regulations.
- B. PGH Bricks and Pavers Pty Limited is the current titleholder of Mining Lease 1731 (Act, 1992) which covers the Bringelly Clay Mine site.
- C. You are a responsible person in relation to Bringelly Clay Mine within the meaning of section 239E(1) of the Mining Act because you are the holder of Mining Lease 1731.
- D. Department Inspectors Greg Kininmonth, Craig Campbell and Peter McMillan inspected Bringelly Clay Mine on 26 March 2019 and identified the following:
- E. **Weeds** - Significant growth of 'Mother of Millions' weeds was identified at the NW section of the site (refer Point 1 on attached Location Plan) for the approximate location of these weeds identified during the inspection).
- F. **Erosion** - Minor erosion and rilling was noted at many locations around the site. A few areas of more significant erosion noted. including within a drainage channel at the NW corner of the site (refer "NW drainage channel" (yellow colour) on attached Location Plan). Sediment fencing within this drainage channel was damaged and appeared to be ineffective. This sediment fencing needs to be removed or replaced. If this drainage channel is to be retained as a drainage channel longer term a more permanent erosion and sediment management system should preferably be implemented.

The background above provides information on key relevant events. It is not intended to be a comprehensive summary of all communications between you and the Department. Other facts not recited above may be relevant.

ISSUE DETAILS

Issued by: Gregory Kininmonth an inspector duly appointed under section 361 of the *Mining Act 1992*.
Manager Environmental Operations

Date this day of 01 May 2019 15:22:31

Manual Email

jgauci@pghbricks.com.au

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Phone: 02 42767428

WARNING AND INFORMATION

Failure to comply

- It is an offence under section 240C of the Mining Act to fail to comply with this direction without a reasonable excuse.
- The maximum penalty for this offence is, for a corporation, \$1,100,000 and a further \$110,000 for each day the offence continues, and, for a natural person, \$220,000 and a further \$22,000 for each day the offence continues.

- If you fail to comply with this direction, the Minister may take any action necessary to give effect to the direction including authorising another person to carry out those activities and recover the costs and expenses so incurred from you or applying to the Court for an injunction directing you to comply with this direction.

Other action

- The serving of this direction and the matters required of you pursuant to this direction in no way preclude, hinder or otherwise restrain the Minister, Secretary or Department from taking further action against you (and the holder of the authorisation to which this direction relates, if you are not the holder of the authorisation) including by commencing legal proceedings.

General

- The words and expressions used in this direction have the same meaning as they have in the Mining Act.
- Any information collected is for the purposes of the Mining Act



Location Plan – Location of ‘Mother of Millions’ weeds (“Point 1”) and ‘NW Drainage Channel’ (yellow colour)

(Note - locations are approximate)



Mr Joe Gauci – Mine Manager
Bringelly Clay Mine
PGH Bricks and Pavers Pty Limited
59-67 Cecil Road
CECIL PARK NSW 2178

Our ref: NTCE0002315
DOC19/689070

Sent via email only to:
jgauci@pghbricks.com.au ; bking@pghbricks.com.au

22 October 2019

Dear Mr Gauci

Mining Lease (ML) 1731, Mining Act [1992], PGH Bricks and Pavers Pty Limited, Notice NTCE0002315 – Notice of Satisfactory Weeds Management Plan and Sediment and Erosion Control Plan

PGH Bricks and Pavers Pty Limited were issued a direction under section 240(1)(c) and Section 240(2A) of the *Mining Act 1992* on 1 May 2019 (NTCE0002315) relating to the Bringelly Clay Mine.

In response to the direction, PGH Bricks & Pavers Pty submitted a Weeds Management Plan 2018-2023 and Sediment and Erosion Control Plan on 17 June 2019. A revised (Final) version of the “Weeds Management Plan 2018-2023” was received on 3 October 2019.

The submitted documents have been assessed as meeting Requirements A(1), A(2), D(1) and D(2) of Notice (NTCE0002315) to the Satisfaction of the Director, Compliance Operations.

The Resources Regulator now requires that the Sediment and Erosion Control Plan and the Weeds Management Plan 2018-2023 be incorporated into the Bringelly Clay Mine Mining Operations Plan and progress reported in future Annual Rehabilitation Report's. Measure E of the s240 Notice (NTCE0002315) requires the Sediment and Erosion Control Plan to be included in the Mining Operations Plan.

The Resources Regulator requests that PGH Bricks & Pavers Pty Ltd submit a new or amended Mining Operations Plan for Bringelly Clay Mine by no later than **Friday 15 November 2019**.

If you have any questions about this letter, please contact Greg Kininmonth, Manager Environmental Operations directly on (02) 4276 7428.

Yours sincerely,

Steve Orr
**A/Director, Compliance
Resources Regulator
NSW Department of Planning, Industry & Environment**

Appendix L

Stack Testing Report

PGH Bricks & Pavers Pty Ltd, Bringelly Plant
Annual Emission Testing Report
Report Number R012478

Document Information

Template Version 211117

Client Name: PGH Bricks & Pavers Pty Ltd
Report Number: R012478
Date of Issue: 24 May 2022
Attention: Janus Arana
Address: Lot 2 Greendale Rd
Bringelly NSW 2556
Testing Laboratory: Ektimo Pty Ltd, ABN 86 600 381 413

Report Authorisation



Rick Peralta
Air Monitoring Consultant

NATA Accredited Laboratory
No. 14601

Steven Cooper
Ektimo Signatory

Accredited for compliance with ISO/IEC 17025 - Testing. NATA is a signatory to the ILAC mutual recognition arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports.

This document is confidential and is prepared for the exclusive use of PGH Bricks & Pavers Pty Ltd and those granted permission by PGH Bricks & Pavers Pty Ltd.

The report shall not be reproduced except in full.

Please note that only numerical results pertaining to measurements conducted directly by Ektimo are covered by Ektimo's terms of NATA accreditation. This does not include comments, conclusions or recommendations based upon the results. Refer to 'Test Methods' for full details of testing covered by NATA accreditation.

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1 Executive Summary

1.1 Background

Ektimo was engaged by PGH Bricks & Pavers Pty Ltd to perform emission testing at their Bringelly plant. Testing was carried out in accordance with Environment Protection Licence 1808.

1.2 Project Objective

The objective of the project is to quantify emissions from one (1) discharge point to determine compliance with PGH Bricks & Pavers Pty Ltd's Environmental Licence for their Bringelly plant.

Monitoring was performed as follows:

Location	Test Date	Test Parameters*
EPA 2 – Kiln Stack	5 May 2022	Total solid particles, particulate matter <10µm (PM ₁₀), Coarse particulates Sulfur dioxide (SO ₂), sulfur trioxide and sulfuric acid mist (as SO ₃) Total fluoride (as HF), hydrogen chloride (HCl) Nitrogen oxides (as NO ₂), carbon dioxide (CO ₂), oxygen (O ₂)

* Flow rate, velocity, temperature and moisture were also determined.

All results are reported on a dry basis at STP.

Plant operating conditions have been noted in the report.

1.3 Licence Comparison

The following licence comparison table shows that all analytes highlighted in green are within the licence limit set by the NSW EPA as per licence 1808 (last amended on 11 August 2020).

EPA No.	Location Description	Pollutant	Units	Licence Limit	Concentration (mg/m ³)	Mass Rate (g/min)
					Detected Values 5/05/2022	
2	Kiln Exhaust Stack	Total Solid Particles	mg/m ³	100	21	19
		Nitrogen Oxides (as NO ₂)	mg/m ³	2000	94	84
		Total Fluoride (as HF)	mg/m ³	50	7.4	6.6

Please note that the measurement uncertainty associated with the test results was not considered when determining whether the results were compliant or non-compliant.

Refer to the Test Methods table for the measurement uncertainties.

2 Results

2.1 EPA 2 – Kiln Stack

Date	5/05/2022	Client	PGH Bricks and Pavers Pty Ltd
Report	R012478	Stack ID	Kiln
Licence No.	1808	Location	Bringelly
Ektimo Staff	Steven Cooper/Rick Peralta	State	NSW
Process Conditions	Product: Graphite, Push Rate: 20 Cars/Day, Soak Temperature: 1034C		220407

Sampling Plane Details	
Sampling plane dimensions	1440 mm
Sampling plane area	1.63 m ²
Sampling port size, number	4" BSP (x2)
Access & height of ports	Stairs & fixed ladder 20 m
Duct orientation & shape	Vertical Circular
Downstream disturbance	Exit 2.5 D
Upstream disturbance	Centrifugal fan 8 D
No. traverses & points sampled	2 12
Sample plane conformance to AS4323.1 (2021)	Ideal sampling plane

Stack Parameters	
Moisture content, %v/v	5.3
Gas molecular weight, g/g mole	28.7 (wet) 29.3 (dry)
Gas density at STP, kg/m ³	1.28 (wet) 1.31 (dry)
Gas density at discharge conditions, kg/m ³	0.80
Gas Flow Parameters	
Flow measurement time(s) (hhmm)	1032 & 1218
Temperature, °C	158
Temperature, K	431
Velocity at sampling plane, m/s	15
Volumetric flow rate, actual, m ³ /s	25
Volumetric flow rate (wet STP), m ³ /s	16
Volumetric flow rate (dry STP), m ³ /s	15
Mass flow rate (wet basis), kg/hour	73000

Gas Analyser Results	Sampling time	Average		Minimum		Maximum	
		1134 - 1234		1134 - 1234		1134 - 1234	
Combustion Gases		Concentration	Mass Rate	Concentration	Mass Rate	Concentration	Mass Rate
		mg/m ³	g/min	mg/m ³	g/min	mg/m ³	g/min
Nitrogen oxides (as NO ₂)		94	84	70	62	100	90
		Concentration		Concentration		Concentration	
		%v/v		%v/v		%v/v	
Carbon dioxide		3.1		1.9		3.4	
Oxygen		16.9		16.3		19	

Isokinetic Results	Sampling time	Results	
		1110-1210	1110-1210 (PM10)
		Concentration	Mass Rate
		mg/m ³	g/min
Solid Particles		21	19
Fine particulates (PM10)		8.1	7.2
Coarse Particulates		13	12
D50 cut size, 10µm		10.4	
Sulfur dioxide		10	9
Sulfur trioxide and/or Sulfuric acid (as SO ₃)		0.96	0.86
Isokinetic Sampling Parameters		Isokinetic	PM 10
Sampling time, min		60	60
Isokinetic rate, %		103	97
Gravimetric analysis date (total particulate)		17-05-2022	
Gravimetric analysis date (PM ₁₀ /PM _{2.5})		17-05-2022	

Date	5/05/2022	Client	PGH Bricks and Pavers Pty Ltd
Report	R012478	Stack ID	Kiln
Licence No.	1808	Location	Bringelly
Ektimo Staff	Steven Cooper/Rick Peralta	State	NSW
Process Conditions	Product: Graphite, Push Rate: 20 Cars/Day, Soak Temperature: 1034C		220407

Sampling Plane Details	
Sampling plane dimensions	1440 mm
Sampling plane area	1.63 m ²
Sampling port size, number	4" BSP (x2)
Access & height of ports	Stairs & fixed ladder 20 m
Duct orientation & shape	Vertical Circular
Downstream disturbance	Exit 2.5 D
Upstream disturbance	Centrifugal fan 8 D
No. traverses & points sampled	2 12
Sample plane conformance to AS4323.1 (2021)	Ideal sampling plane

Stack Parameters		
Moisture content, %v/v	5.3	
Gas molecular weight, g/g mole	28.7 (wet)	29.3 (dry)
Gas density at STP, kg/m ³	1.28 (wet)	1.31 (dry)
Gas density at discharge conditions, kg/m ³	0.80	
Gas Flow Parameters		
Flow measurement time(s) (hhmm)	1218 & 1359	
Temperature, °C	158	
Temperature, K	431	
Velocity at sampling plane, m/s	15	
Volumetric flow rate, actual, m ³ /s	25	
Volumetric flow rate (wet STP), m ³ /s	16	
Volumetric flow rate (dry STP), m ³ /s	15	
Mass flow rate (wet basis), kg/hour	72000	

Isokinetic Results	Sampling time	Results	
		1251-1353	
		Concentration mg/m ³	Mass Rate g/min
Chloride (as HCl)		37	33
Total fluoride (as HF)		7.4	6.6
Isokinetic Sampling Parameters		Isokinetic	
Sampling time, min		60	
Isokinetic rate, %		104	

3 Plant Operating Conditions

The below plant operating conditions have been supplied by PGH Bricks & Pavers Pty Ltd's personnel.

	5 May 2022
Product	Graphite
Push rate	20 cars/day
Soak temperature	1034°C

4 Calibration Records

Equipment Type	Equipment name	ID	Office	Type	Last Calibration Date
Nozzles	SS nozzle kit	891	NSW	12 Monthly Nozzle Calibrations	5/01/22
Nozzles	SS (PM10) nozzle kit	776	NSW	12 Monthly Nozzle Calibrations	6/01/22
Nozzles	Glass Nozzle Kit	892	NSW	12 Monthly Nozzle Calibrations	5/01/22
Analysers	Testo 350 Gas Analyser	925	NSW	6 Monthly Analyser Linearity Checks	7/01/22
Analysers	MRU Gas Analyser	1699	NSW	6 Monthly Analyser Linearity Checks	7/01/22
Gas Meters	DITGM Gas Meter (EML3)	812	NSW	6 Monthly Gas Meter Calibrations	4/01/22
Gas Meters	DITGM Gas Meter (EML9)	914	NSW	6 Monthly Gas Meter Calibrations	4/01/22
Manometers	Testo DP-440	997	NSW	12 Monthly Manometer Calibrations	4/01/22
Barometer	Testo 511	1627	NSW	6 Monthly Barometer Checks (BOM)	7/02/22
Pitot tube	Pitot tip (s-type)	1756	NSW	6 Monthly Pitot Tube Calibrations	5/01/22
Temp Device	Testo DP-440	997	NSW	6 Monthly Temperature Device Checks	5/01/22
Temp Device	Thermocouple	1756	NSW	6 Monthly Temperature Device Checks	5/01/22

5 Test Methods

All sampling performed by Ektimo unless otherwise specified. Specific details of the methods are available upon request.

Parameter	Sampling Method	Analysis Method	Uncertainty*	NATA Accredited	
				Sampling	Analysis
Sampling points - Selection	NSW EPA TM-1	NA	NA	✓	NA
Flow rate, temperature and velocity	NSW EPA TM-2	NSW EPA TM-2	8%, 2%, 7%	NA	✓
Moisture content	NSW EPA TM-22	NSW EPA TM-22	8%	✓	✓
Molecular weight	NA	NSW EPA TM-23	not specified	NA	✓
Dry gas density	NA	NSW EPA TM-23	not specified	NA	✓
Carbon dioxide	NSW EPA TM-24	NSW EPA TM-24	13%	✓	✓
Nitrogen oxides	NSW EPA TM-11	NSW EPA TM-11	12%	✓	✓
Oxygen	NSW EPA TM-25	NSW EPA TM-25	13%	✓	✓
Sulfur dioxide	NSW EPA TM-4	Ektimo 235	16%	✓	✓ [†]
Particulate matter (PM ₁₀)	NSW EPA OM-5	NSW EPA OM-5	6%	✓	✓ ^{††}
Coarse particulates	NSW EPA OM-9	NSW EPA OM-9	not specified	✓	✓ ^{††}
Solid particles (total)	NSW EPA TM-15	NSW EPA TM-15	3%	✓	✓ ^{††}
Fluorine & fluorine compounds	NSW EPA TM-9	ALS in-house method EA144C & Ektimo 240	25%	✓	✓ ^{#,†}
Hydrogen chloride	NSW EPA TM-8	Ektimo 235	14%	✓	✓ [†]
Sulfuric acid mist and/or sulfur trioxide	NSW EPA TM-3	Ektimo 235	16%	✓	✓ [†]

220215

* Uncertainties cited in this table are estimated using typical values and are calculated at the 95% confidence level (coverage factor = 2).

† Analysis conducted at the Ektimo Mitcham, VIC laboratory, NATA accreditation number 14601. Results were reported on
 12 May 2022 in report R012478-ISE F
 13 May 2022 in report LV-002721
 13 May 2022 in report LV-002731

†† Gravimetric analysis conducted at the Ektimo Unanderra, NSW laboratory, NATA accreditation number 14601.

Analysis (solid fluoride only) performed by Australian Laboratory Services Pty Ltd, NATA accreditation number 825. Results were reported to Ektimo on 16 May 2022 in report EN2204410

6 Quality Assurance/Quality Control Information

Ektimo is accredited by the National Association of Testing Authorities (NATA) for the sampling and analysis of air pollutants from industrial sources. Unless otherwise stated test methods used are accredited with the National Association of Testing Authorities. For full details, search for Ektimo at NATA's website www.nata.com.au.

Ektimo is accredited by NATA (National Association of Testing Authorities) to ISO/IEC 17025 - Testing. ISO/IEC 17025 - Testing requires that a laboratory have adequate equipment to perform the testing, as well as laboratory personnel with the competence to perform the testing. This quality assurance system is administered and maintained by the Quality Director.

NATA is a member of APAC (Asia Pacific Accreditation Co-operation) and of ILAC (International Laboratory Accreditation Co-operation). Through mutual recognition arrangements with these organisations, NATA accreditation is recognised worldwide.

7 Definitions

The following symbols and abbreviations may be used in this test report:

% v/v	Volume to volume ratio, dry or wet basis
~	Approximately
<	Less than
>	Greater than
≥	Greater than or equal to
AS	Australian Standard
BSP	British standard pipe
CTM	Conditional test method
D	Duct diameter or equivalent duct diameter for rectangular ducts
D ₅₀	'Cut size' of a cyclone is defined as the particle diameter at which the cyclone achieves a 50% collection efficiency i.e. half of the particles are retained by the cyclone and half pass through it. The D ₅₀ method simplifies the capture efficiency distribution by assuming that a given cyclone stage captures all of the particles with a diameter equal to or greater than the D ₅₀ of that cyclone and less than the D ₅₀ of the preceding cyclone.
Disturbance	A flow obstruction or instability in the direction of the flow which may impede accurate flow determination. This includes centrifugal fans, axial fans, partially closed or closed dampers, louvres, bends, connections, junctions, direction changes or changes in pipe diameter.
EPA	Environment Protection Authority
Lower bound	When an analyte is not present above the detection limit, the result is assumed to be equal to zero.
Medium bound	When an analyte is not present above the detection limit, the result is assumed to be equal to half of the detection limit.
NA	Not applicable
NATA	National Association of Testing Authorities
NT	Not tested or results not required
.	
PM ₁₀	Atmospheric suspended particulate matter having an equivalent aerodynamic diameter of less than approximately 10 microns (µm).
PM _{2.5}	Atmospheric suspended particulate matter having an equivalent aerodynamic diameter of less than approximately 2.5 microns (µm).
STP	Standard temperature and pressure. Gas volumes and concentrations are expressed on a dry basis at 0°C, at discharge oxygen concentration and an absolute pressure of 101.325 kPa, unless otherwise specified.
TM	Test method
USEPA	United States Environmental Protection Agency
VDI	Verein Deutscher Ingenieure (Association of German Engineers)
Velocity difference	The percentage difference between the average of initial flows and after flows.
Upper bound	When an analyte is not present above the detection limit, the result is assumed to be equal to the detection limit.
95% confidence interval	Range of values that contains the true result with 95% certainty. This means there is a 5% risk that the true result is outside this range.

8 Appendix 1: Site Photo



EPA 2 – Kiln Stack

Ektimo

ektimo.com.au

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Mitcham

VIC 3132

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Artarmon

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AUSTRALIA

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AUSTRALIA

Appendix M Community Consultation

Trinita 3, 39 Delhi Road, North Ryde, NSW 2113

Locked Bag 1345, North Ryde, BC 1670

T 61 2 9235 8000

F 61 2 8362 9005

ABN 68 168 794 821



Project:	PGH Bricks Bringelly brickworks extension
Meeting :	Traffic discussion
Date:	23 September 2021
Venue and Time:	Via Zoom 4-5pm .
Document:	Meeting notes
Chair/Facilitator:	Kath Elliott, (KE)
Minutes:	Kath Elliott
Present	
Vince Capaldi, Tom Allen and Mallorie Hambridge, Camden Council	Diane Newell, Neighbour
Charles Wiafe, Rachel Palermo, Liverpool Council	Rino Di Mascio. P&C President, Bringelly PS
Norman Azar, Boral	Sharyl Scott, Principal, Bringelly Public School
Debbie Cook, Michael Travers, Tony Hunt and Tony West of PGH Bricks	Kath Elliott, CCC Chair
Apologies:	
Tony Estephan, Neighbour	Dam Truong, Neighbour

Meeting Minutes

Welcome

Kath Elliott (KE) opened the meeting and gave a brief overview of the CCC background including that several meetings have discussed traffic issues near the school. The CCC had agreed to advocate for the school and invite Councils to discuss traffic issues and options for safety improvements.

Overview of issues from PGH Bricks

Tony Hunt (TH) advised that PGH Bricks would be seeking a planning modification which may include an increase in trucks. PGH had been undertaking truck counts and had noticed that the Greendale Rd was carrying significant trucks since the upgrade of the Northern Rd. The Northern Rd /Greendale Rd intersection sees the lights mostly green heading east/west and trucks are speeding through the intersection posing safety risks to the school community. Suggested that a school speed camera may be a useful measure to control this speeding.

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Sharyl Scott (SS) advised that the changes to the “kiss and drop” on Wentworth Ave were working well but some parents were still parking on the Greendale Rd side of the school. Noted that parents did also do shopping across the road. Some were seen doing u turns on Greendale Rd which was very dangerous.

Advised that she had observed trucks speeding through the intersection since the road upgrade and lights phasing had changed.

Advised that the School was encouraging parents to use the kiss and drop rather than Greendale Rd.

Overview of Local Government Responsibilities

Vince Capaldi (VC) Camden Council, advised that the installation of speed cameras is a responsibility of TfNSW. In respect of LED signs, this does not record the speeding history of vehicles, only suggests motorists slow down by showing their speed in real time.

Charles Wiafe (CW) Liverpool Council, said that speed was a consistent issue. Advised they would support an application for a school zone camera. Advised that they were working with TfNSW to extend the kerb and guttering on Wentworth Ave to provide more parking for the school community. Suggested that the police should be engaged in the issue.

Boral update

Boral advised that they were committed to supporting the school in whatever way they can and suggested they could slow all their trucks to 40km near the school if needed. Advised that there has been an increase in trucks since the upgrade and several are doing u-turns in the Boral driveway.

Advised that Boral toolbox talks are community focused and address speed zones and the school zones.

Discussion

Speed humps not useful in a 60km zone due to noise disruption of trucks.

Possibility to put rubber tubes down to do counts. PGH advised that they had some counts and agreed to provide to Council.

Rachel Palermo (RP) advised that TfNSW looks at injury crash statistics in putting in school zone cameras.

Tom Allen (TA) advised that 40km speed limited truck might cause some issues for other vehicles, posing safety hazard.

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<p>RP advised that they could provide the school with a key to the Bringelly community centre gates to allow for parents to park there. SS advised this would be very useful at times when there are school events, not necessarily on a day-to-day basis.</p> <p>Rino di Mascio (RD) suggested possibility of road narrowing or similar. This was agreed as a possibility and Council will look into this.</p> <p>SS advised that a school survey had identified that about 60% of parents were using the Wentworth Ave for drop off and pick-ups but that the school is encouraging more parents to use it.</p> <p>Agreed that more parents needed to use the Wentworth Ave section, not Greendale Rd.</p> <p>RP advise that she can provide a resource called a “how to park” map.</p>	
<p>Other business</p> <p>TH advised members of the CCC that PGH would be removing African Olive weed at the rear of the site in the near future.</p>	<p>To note</p>
<p>Next steps</p> <p>Notes to all for review and actions.</p> <p>Meeting closed at 4.50 pm</p>	<p>KE to prepare and distribute</p>

DRAFT

Appendix N

Noise Monitoring

FYI



Tony Hunt | WHSE Advisor | PGH Bricks & Pavers | **CSR Limited**
Tel: 0468 534 059 | 99-117 Cecil Rd, Cecil Park NSW 2178
Web: www.pghbricks.com.au | www.csr.com.au
[Facebook](#) | [Instagram](#) | [LinkedIn](#) | [Pinterest](#)

From: Rod Linnett <rlinnett@mulleracoustic.com>
Sent: Tuesday, 3 August 2021 10:03 AM
To: Hunt, Tony <TOHUNT@csr.com.au>
Subject: RE: PGH Bringelly Noise monitoring

Hi Tony,

yes, we are not able to go to Sydney (ie red zones) without having to isolate for 14 days on return.

We have until the end of September, so hoping we can get it done after August.

Kind Regards

Rod Linnett | **Senior Acoustic Consultant**
Muller Acoustic Consulting Pty Ltd (MAC)
PO Box 678, Kotara NSW 2289



P: 02 4920 1833 | **M:** 0403 703 924

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Member Firm of the Association of Australasian Acoustical Consultants

From: Hunt, Tony <TOHUNT@csr.com.au>
Sent: Tuesday, 3 August 2021 9:55 AM
To: Rod Linnett <rlinnett@mulleracoustic.com>
Subject: PGH Bringelly Noise monitoring

Hi Rod

I thought I should touch base and see how you're going with the lockdown. I assume the next round of noise monitoring is still on hold?

Regards



Tony Hunt | WHSE Advisor | PGH Bricks & Pavers | **CSR Limited**
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Noise Monitoring Assessment

PGH Bringelly Brickworks

Bringelly, NSW

Quarter 4 Ending December 2021



Document Information

Noise Monitoring Assessment

PGH Bringelly Brickworks

Bringelly, NSW

Quarter 4 Ending December 2021

Prepared for: PGH Bricks & Pavers Pty Ltd

Greendale Road

Bringelly NSW 2256



Prepared by: Muller Acoustic Consulting Pty Ltd

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DOCUMENT ID	STATUS	DATE	PREPARED	SIGNED	REVIEWED	SIGNED
MAC190946-05RP4	Final	10 November 2021	Louis Abell		Rod Linnett	

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APPENDIX A – GLOSSARY OF TERMS

APPENDIX B – DEVELOPMENT CONSENT

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1 Introduction

Muller Acoustic Consulting Pty Ltd (MAC) has been commissioned by PGH Bricks & Pavers Pty Ltd (PGH) to complete a Noise Monitoring Assessment (NMA) for the PGH Bringelly Brickworks (the 'site') at Greendale Road, Bringelly, NSW.

This assessment has been undertaken for the quarterly period ending December 2021, and forms part of the annual noise monitoring program to address conditions outlined in the Development Consent.

The NMA has quantified potential operational and sleep disturbance noise emissions from the operation and has been conducted in accordance with the following documents:

- NSW Environment Protection Authority (EPA), Noise Policy for Industry (NPI), 2017;
- Bringelly Brickworks Noise Management Plan (NMP ref BRK-BRI-NMP Version 4 dated 12.02.19), 2019;
- Bringelly Brickworks Development Consent, 2015 (SSD_5684); and
- Australian Standard AS 1055:2018 - Acoustics - Description and measurement of environmental noise.

A glossary of terms, definitions and abbreviations used in this report is provided in **Appendix A**.

The Development Consent is provided in **Appendix B**.

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2 Noise Criteria

The Bringelly Brickworks NMP outlines the applicable noise criteria for representative residential receivers surrounding the site and are presented in **Table 1**. The site includes the operation of a quarry and brickmaking plant, and as the quarry operates during the daytime, there are separate criteria relating to each period.

Table 1 Noise Criteria ¹				
Activity	Receiver	Day/Evening/Shoulder ^{2,3}		Night ²
		dB LAeq(15min)	dB LAeq(15min)	dB LA1(max) ³
Brickmaking and quarrying	R1, R2	47		
	R3, R4, R14	46		
	R15, R17	45		N/A
	All other receivers	44		
Brickmaking	All Receivers	44	43	53

Note 1: Noise criteria adopted from the Development Consent.

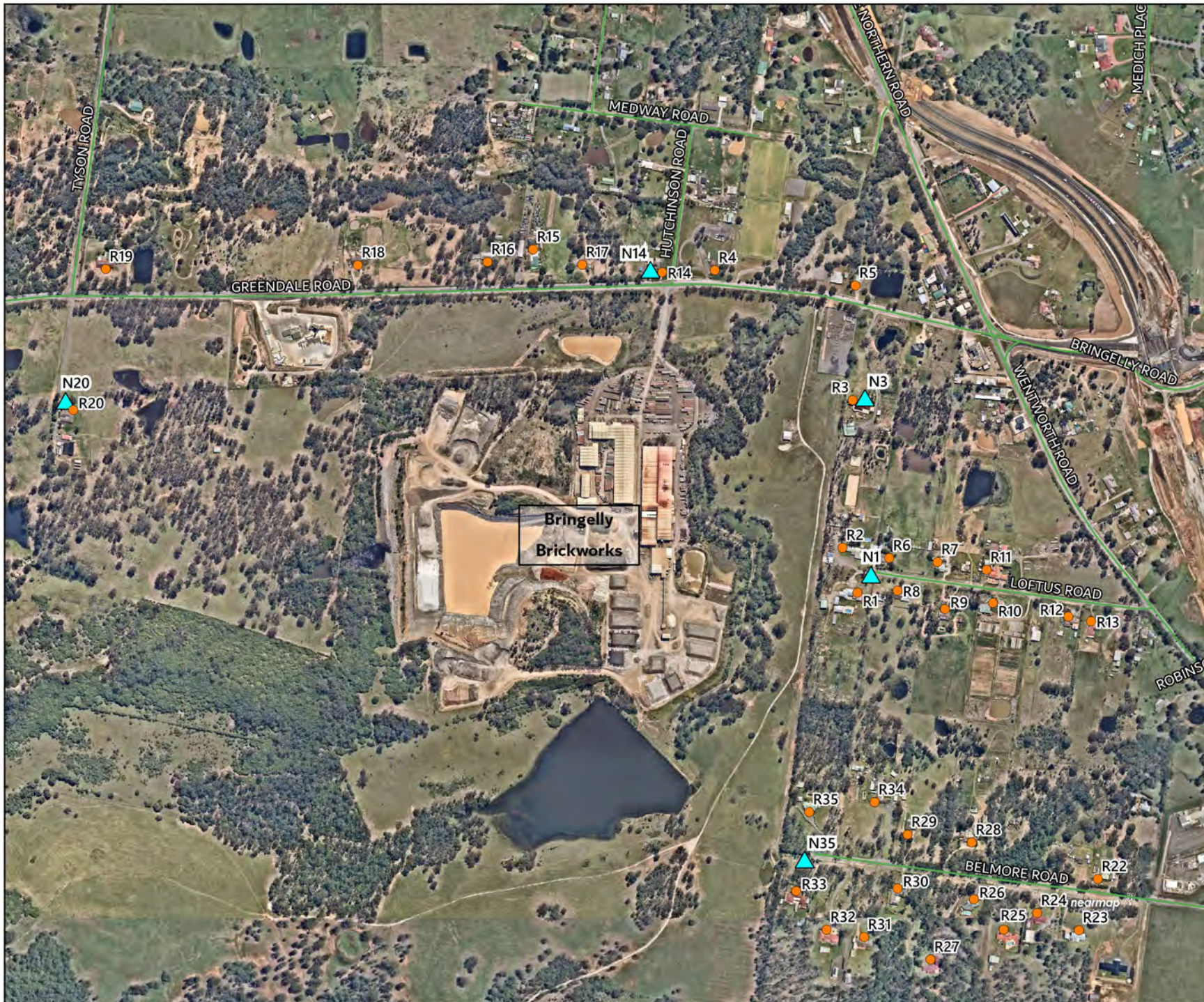
Note 2: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Note 3: Periods and parameters as expressed in the Development Consent

Figure 1 presents the identified receiver locations and representative measurement locations.

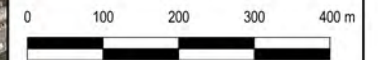
Section 4 of the Bringelly Brickworks Development Consent, 2015 (SSD_5684) outlines requirements for Noise Bunds adjacent to the northern boundary of the extraction area and adjacent to Greendale Road. It is noted that the proposed new access road and associated noise bund adjacent to Greendale Road are not in place at the time of the monitoring. Further details on review of noise mitigation measures for the site are contained in a historic report (MAC190946LR1, 29 September 2019).

FIGURE 1
 SITE LAYOUT
 MAC190946-02
 PGH Bringelly Brickworks



KEY

- ▲ Monitoring Locations
- Receivers



3 Assessment Methodology

The attended noise measurements were conducted in general accordance with the procedures described in Australian Standard AS 1055:2018, "Acoustics - Description and Measurement of Environmental Noise". Measurements were conducted using a Svantek Type 1, 971 noise analyser. The acoustic instrumentation used carries current NATA calibration and complies with AS IEC 61672.1-2019- Electroacoustics - Sound level meters - Specifications. Calibration of all instrumentation was checked prior to and following measurements. Drift in calibration did not exceed ± 0.5 dBA.

Noise measurements were of 15-minutes in duration and where possible, throughout each survey the operator quantified the contribution of each significant noise source. Measurements were conducted at five locations (N1, N3, N14, N20, N35) on Monday 1 November 2021, during the evening and night time periods and Tuesday 2 November 2021 during the day time period to satisfy the requirements of the NMP.

Extraneous noise sources were excluded from the analysis to determine the $L_{Aeq}(15min)$ quarry noise contribution for comparison against the relevant criteria. In the event of site attributed noise being above criteria, prevailing meteorological conditions for the monitoring period are analysed in accordance with Fact Sheet D of the NPI to determine the stability category present at the time of each attended measurement.

Where the site is inaudible, the contribution is estimated to be at least 10dBA below the ambient noise level.

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4 Results

4.1 Assessment Results - Location N1

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N1 for the NMA are presented in **Table 2**.

Table 2 Operator-Attended Noise Survey Results – Location N1

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA1	LAeq	LA90		
02/11/2021	10:30 (Day)	51	43	38	WD: NE WS: 0.2m/s Rain: Nil	Insects <35
						Birds 35-44
						Lawnmower 40-46
						Aircraft 30-43
						Distant Traffic 35-46
PGH reverse alarm (10secs)						35
PGH Site LAeq(15min) Contribution						<35
01/11/2021	19:32 (Evening)	50	42	38	WD: N WS: 0.8m/s Rain: Nil	Distant Traffic 37-42
						Aircraft 43-50
						Insects <30-35
						Birds 35-58
						PGH Not Audible
PGH Site LAeq(15min) Contribution						<35
01/11/2021	22:22 (Night)	48	41	38	WD: ENE WS: 0.1m/s Rain: Nil	Distant Traffic 35-46
						Dogs 40-64
						Insect 36-38
						Music <30-33
						PGH Audible 32-34
PGH Site LAeq(15min) Contribution						<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

4.2 Assessment Results - Location N3

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N3 for the NMA are presented in **Table 3**.

Table 3 Operator-Attended Noise Survey Results – Location N3

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA1	LAeq	LA90		
02/11/2021	11:19 (Day)	60	51	42	WD: NE	Birds 45-56
					WS: 0.3m/s	Aircraft 43-46
					Rain: Nil	Local Traffic 50-65
						PGH Not Audible
		PGH Site LAeq(15min) Contribution				<35
01/11/2021	19:55 (Evening)	61	55	52	WD: ENE	Local Traffic 53-68
					WS: 0.2m/s	Distant Traffic <40
					Rain: Nil	Insects 50-53
						Frogs 48-50
						PGH Not Audible
		PGH Site LAeq(15min) Contribution				<35
01/11/2021	22:41 (Night)	73	64	48	WD: ENE	Distant Traffic 40-48
					WS: 0.2m/s	Local Traffic 50-92
					Rain: Nil	Insects 45-48
						Frogs 48-53
						PGH Audible 35-40
		PGH Site LAeq(15min) Contribution				38

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

4.3 Assessment Results - Location N14

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N14 for the NMA are presented in **Table 4**.

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA1	LAeq	LA90		
02/11/2021	11:51 (Day)	83	70	44	WD: NE WS: 0.8m/s Rain: Nil	Local Traffic 58-92
						Distant Traffic 40-43
						Aircraft 48-65
						Dogs 45-47
						Truck Entry at PGH (5secs)
PGH Site LAeq(15min) Contribution						40-52
						<35
01/11/2021	20:12 (Evening)	74	61	41	WD: ENE WS: 0.3m/s Rain: Nil	Local Traffic 48-89
						Distant Traffic 45-52
						Bats 40-43
						PGH Audible (3minutes) 35-45
						PGH Site LAeq(15min) Contribution
						<35
01/11/2021	23:00 (Night)	64	55	35	WD: N WS: 0.2m/s Rain: Nil	Insects 33-35
						Distant Traffic 36-49
						Local Traffic 50-82
						Bats 30-35
						PGH Audible <35
PGH Site LAeq(15min) Contribution						<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

4.4 Assessment Results - Location N20

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N20 for the NMA are presented in **Table 5**.

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA1	LAeq	LA90		
02/11/2021	12:12 (Day)	59	48	38	WD: NE	Local Traffic 45-50
					WS: 0.4m/s	Aircraft 38-41
					Rain: Nil	Birds 40-45
						Wind in Trees 44-47
PGH Site LAeq(15min) Contribution						<35
01/11/2021	19:15 (Evening)	69	56	39	WD: ENE	Distant Traffic 30-35
					WS: 0.3m/s	Local Traffic 50-78
					Rain: Nil	Insects 40-43
						PGH Not Audible
PGH Site LAeq(15min) Contribution						<35
01/11/2021	23:18 (Night)	58	46	33	WD: ENE	Insects 30-35
					WS: 0.1m/s	Distant Traffic 30-35
					Rain: Nil	Local Traffic 50-68
						Birds 35-45
PGH Site LAeq(15min) Contribution						<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

4.5 Assessment Results - Location N35

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N35 for the NMA are presented in **Table 6**.

Date	Time (hrs)	Descriptor (dBA re 20 μ Pa)			Meteorology	Description and SPL, dBA
		LA1	LAeq	LA90		
02/11/2021	09:38 (Day)	58	49	41	WD: NE WS: 0.5m/s Rain: Nil	Distant Traffic <40
						Local Traffic 50-64
						Aircraft 45-58
						Birds 43-48
						Lawnmower 49-52
PGH Site LAeq(15min) Contribution						<35
01/11/2021	19:02 (Evening)	51	42	36	WD: NE WS: 0.8m/s Rain: Nil	Distant Traffic 35-42
						Dogs <30-49
						Aircraft 38-41
						Birds 35-63
						PGH Not Audible
PGH Site LAeq(15min) Contribution						<35
01/11/2021	22:00 (Night)	53	46	43	WD: ENE WS: 0.3m/s Rain: Nil	Insects 40-45
						Distant Traffic 38-46
						Dogs 45-57
						Sprinkler System 40-42
						PGH Not Audible
PGH Site LAeq(15min) Contribution						<35

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

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5 Discussion

Monitoring on Monday 1 November 2021 and Tuesday 2 November 2021 identified site noise was audible during all periods at monitoring location N14, during the day and night period at monitoring location N1, and during the night period only at monitoring location N3. Site contributions were not audible during any period at monitoring location N20 and N35. Site attributable noise contributions were estimated to satisfy the relevant noise criteria at all locations during all assessment periods.

Audible site noise sources included the combustion fan, reverse alarm and trucks entering the site on the access road. Extraneous noise sources measured included insects, birds, traffic, aircraft noise and dogs barking.

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6 Conclusion

Muller Acoustic Consulting Pty Ltd (MAC) has completed a Noise Monitoring Assessment (NMA) PGH Bricks & Pavers Pty Ltd (PGH) at the PGH Bringelly Brickworks (the 'site') at Greendale Road Bringelly, NSW. The assessment was completed to assess the site's compliance with the relevant noise criteria during Quarter 4, ending December 2021.

Attended noise monitoring was undertaken on Monday 1 November 2021 and Tuesday 2 November 2021 at five representative receiver locations. The assessment has identified that noise emissions generated by Bringelly Brickworks were occasionally audible, however quarry noise emissions were below the relevant noise criteria throughout the survey period, satisfying the relevant consent conditions.

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Appendix A – Glossary of Terms

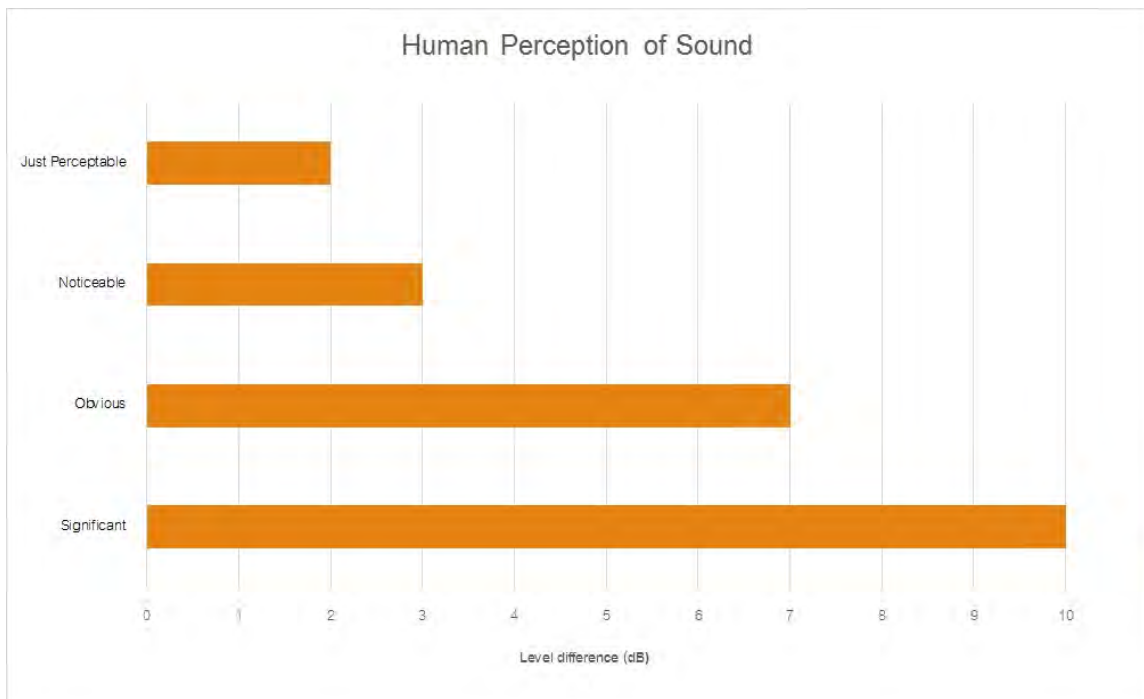
A number of technical terms have been used in this report and are explained in **Table A1**.

Table A1 Glossary of Acoustical Terms	
Term	Description
1/3 Octave	Single octave bands divided into three parts
Octave	A division of the frequency range into bands, the upper frequency limit of each band being twice the lower frequency limit.
ABL	Assessment Background Level (ABL) is defined in the NPI as a single figure background level for each assessment period (day, evening and night). It is the tenth percentile of the measured L90 statistical noise levels.
Ambient Noise	The total noise associated with a given environment. Typically, a composite of sounds from all sources located both near and far where no particular sound is dominant.
A Weighting	A standard weighting of the audible frequencies designed to reflect the response of the human ear to sound.
Background Noise	The underlying level of noise present in the ambient noise, excluding the noise source under investigation, when extraneous noise is removed. This is usually represented by the LA90 descriptor
dba	Noise is measured in units called decibels (dB). There are several scales for describing noise, the most common being the 'A-weighted' scale. This attempts to closely approximate the frequency response of the human ear.
dB(Z), dB(L)	Decibels Z-weighted or decibels Linear (unweighted).
Extraneous Noise	Sound resulting from activities that are not typical of the area.
Hertz (Hz)	The measure of frequency of sound wave oscillations per second - 1 oscillation per second equals 1 hertz.
LA10	A sound level which is exceeded 10% of the time.
LA90	Commonly referred to as the background noise, this is the level exceeded 90% of the time.
LAeq	Represents the average noise energy or equivalent sound pressure level over a given period.
LAmx	The maximum sound pressure level received at the microphone during a measuring interval.
Masking	The phenomenon of one sound interfering with the perception of another sound. For example, the interference of traffic noise with use of a public telephone on a busy street.
RBL	The Rating Background Level (RBL) as defined in the NPI, is an overall single figure representing the background level for each assessment period over the whole monitoring period. The RBL, as defined is the median of ABL values over the whole monitoring period.
Sound power level (Lw or SWL)	This is a measure of the total power radiated by a source in the form of sound and is given by $10 \cdot \log_{10} (W/W_0)$. Where W is the sound power in watts to the reference level of 10^{-12} watts.
Sound pressure level (Lp or SPL)	the level of sound pressure; as measured at a distance by a standard sound level meter. This differs from Lw in that it is the sound level at a receiver position as opposed to the sound 'intensity' of the source.

Table A2 provides a list of common noise sources and their typical sound level.

Table A2 Common Noise Sources and Their Typical Sound Pressure Levels (SPL), dBA	
Source	Typical Sound Pressure Level
Threshold of pain	140
Jet engine	130
Hydraulic hammer	120
Chainsaw	110
Industrial workshop	100
Lawn-mower (operator position)	90
Heavy traffic (footpath)	80
Elevated speech	70
Typical conversation	60
Ambient suburban environment	40
Ambient rural environment	30
Bedroom (night with windows closed)	20
Threshold of hearing	0

Figure A1 – Human Perception of Sound



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Appendix B – Development Consent

Development Consent

Section 89E of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning, I approve the development application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

These conditions are required to:

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

David Kitto
Executive Director
Resource Assessments and Business Systems

Sydney

2015

SCHEDULE 1

Application Number:

SSD_5684

Applicant:

Boral Bricks Pty Ltd

Consent Authority:

Minister for Planning

Land:

[Lot 100 in DP 1203966](#)

Development:

Bringelly Brickworks Extension Project

Modification 1 (October 2016 shown in [blue](#) text)

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DEFINITIONS

AHD	Australian Height Datum
Annual Review Applicant	The review required by condition 4 of schedule 5 Boral Bricks Pty Ltd, or any other person or persons who rely on this consent to carry out the development that is subject to this consent
BCA	Building Code of Australia
Biodiversity offset strategy	The conservation and enhancement strategy described in the EIS, and shown conceptually in Appendix 4
Brick making operations	Includes the receipt, handling, processing, storage and transportation of raw materials on site, brick making on site and transportation of finished bricks on site
CCC	Community Consultative Committee
Conditions of consent	Conditions contained in schedules 1 to 5 inclusive
Construction	The demolition of buildings or works, carrying out of works and erection of buildings covered by this consent
CPI	Australian Bureau of Statistics Consumer Price Index
Date of commencement	The date notified to the Department by the Applicant under condition 8 of Schedule 2
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Environment
Development	The development described in the documents of condition 2(a) of Schedule 2
Development area	All land to which the development application applies, as listed under "Land" in schedule 1 and shown in Appendix 1
DPI Water	Department of Primary Industries - Water
DRE	Division of Resources and Energy, within the NSW Department of Industry
EEC	Endangered Ecological Community, as defined under the <i>Threatened Species Conservation Act 1995</i>
EIS	Environmental Impact Statement titled <i>Bringelly Brickworks and Quarry Expansion</i> (2 volumes), dated September 2013, as modified by the Response to Submissions titled, <i>Bringelly Brickworks and Quarry Expansion, Response to Submissions</i> dated February 2014 and the letter entitled <i>Bringelly Brickworks – Biodiversity Offsets</i> , dated 2 June 2014
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence under the POEO Act
Evening	The period from 6pm to 10pm
Extension area	The area outside of the existing quarry footprint (i.e. cells D, E, F, G, H and I, as shown conceptually in Appendix 2)
Feasible	Feasible relates to engineering considerations and what is practical to build
GDE	Groundwater Dependent Ecosystem
GPS	Global Positioning System
Growth Centres SEPP	<i>State Environmental Planning Policy (Sydney Regional Growth Centres) 2006</i>
Ha	Hectare
Incident	A set of circumstances that: <ul style="list-style-type: none"> • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this consent
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in schedules 3 and 4 of this consent

	where it is defined to mean the whole of a lot, or contiguous lots, owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
m	Metres
Minister	Minister for Planning, or delegate
Mitigation	Activities associated with reducing the impacts of the development
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NP&W Act	<i>National Parks and Wildlife Act 1974</i>
OEH	NSW Office of Environment and Heritage
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency or the Applicant (or its subsidiary)
Quarrying operations	Includes the removal of overburden and extraction, handling, storage and transportation of extractive materials on site
Raw materials	Raw materials imported for use in brick making including clay/shale and additives (such as manganese and iron oxides)
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Rehabilitation	The restoration of land disturbed by the development to a good condition, ensuring that it is safe, stable and non-polluting and appropriately revegetated
RMS	Roads and Maritime Services
Secretary	Secretary of the Department, or nominee
SEE (Mod 1)	Statement of Environmental Effects titled 'Section 96(1A) Modification Supporting Information' dated August 2016 and prepared by Element Environment, including the Response to Submissions document dated September 2016
Site	The land listed under "Land" in schedule 1
Shoulder	The period between 6am to 7am on Monday to Saturday
South West Growth Centre	An area of land identified under the Growth Centres SEPP

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this consent, the Applicant **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 development.

TERMS OF CONSENT

2. The Applicant **must**:
 - (a) carry out the development generally in accordance with the EIS **and SEE (Mod 1)**; and
 - (b) the conditions of this consent.

Note: The general layout of the development is shown in Appendix 2.

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

LIMITS ON CONSENT

Quarrying and Brick Making Operations

5. The Applicant may carry out quarrying **operations** and brick making operations from the date of commencement of development under this consent until 1 March 2045.

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

Production Limits

6. The Applicant **must** not:
 - (a) extract more than 200,000 tonnes of clay/shale from the site in any calendar year;
 - (b) produce more than 263,500 tonnes of bricks at the site in any calendar year;
 - (c) carry out quarrying operations beyond 46 m AHD; and
 - (d) receive more than **321,000** tonnes of raw materials required for brick making to the site in any calendar year.

Transportation Limits

7. The Applicant **must** not:
 - (a) transport more than 263,500 tonnes of bricks from the site in a calendar year;
 - (b) receive more than 90 trucks to the site per day or more than 18 trucks per hour; and
 - (c) dispatch more than 90 trucks from the site per day or more than 18 trucks per hour.

NOTIFICATION OF COMMENCEMENT

8. **Prior to commencing development under this consent, the Applicant must notify the Department in writing of the date on which it will commence development permitted under this consent.**

SURRENDER OF EXISTING DEVELOPMENT CONSENT

9. Within 4 months of commencing development under this consent, the Applicant must surrender the development consent (DA 91/1194) for existing operations on the site in accordance with Section 104A of the EP&A Act.

Following the commencement of development under this consent, the conditions of this consent (including any notes) shall prevail to the extent of any inconsistency with the conditions of the existing development consent (DA 91/1194).

STRUCTURAL ADEQUACY

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

Notes:

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

DEMOLITION

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

PROTECTION OF PUBLIC INFRASTRUCTURE

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

Note: This condition does not apply to any damage to roads caused as a result of general road usage.

OPERATION OF PLANT AND EQUIPMENT

13. The Applicant must ensure that all plant and equipment used on site or any monitoring equipment used off site for monitoring the performance of the development is:
- maintained in a proper and efficient condition; and
 - operated in a proper and efficient manner.

UPDATING AND STAGING STRATEGIES, PLANS OR PROGRAMS

14. With the approval of the Secretary, the Applicant may submit any strategies, plans or programs required by this consent on a progressive basis.

To ensure the strategies, plans or programs under the conditions of this consent are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval.

With the agreement of the Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this consent.

Notes:

- While any strategy, plan or program may be submitted on a progressive basis, the Applicant must ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times.
- If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage 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.

15. Until they are replaced by an equivalent strategy, plan or program approved under this consent, the Applicant **must** implement the existing strategies, plans or programs for the site that have been approved under DA 91/1194.

IDENTIFICATION OF APPROVED LIMITS OF EXTRACTION

16. Prior to undertaking quarrying operations in the extension area, the Applicant **must**:
 - (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction within the development area; and
 - (b) submit a survey plan of these boundaries with applicable GPS coordinates to the Secretary.
17. While quarrying operations are being carried out, the Applicant **must** ensure that these boundaries are clearly marked at all times to allow operating staff and inspecting officers to clearly identify the approved limits of extraction.

PRODUCTION DATA

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

DEVELOPER CONTRIBUTIONS

19. The Applicant **must** pay Camden Council road maintenance contributions of \$0.0811 for every tonne of material transported to and from the site, indexed to CPI. Each payment must be:
 - (a) paid to Council at the end of each calendar year; and
 - (b) based on weighbridge records of all supplementary brick making materials transported to the site and bricks and spoil transported from the site.

Note: If the parties are not able to agree on any aspect of the maintenance contributions, either party may refer the matter to the Secretary for resolution.

**SCHEDULE 3
ENVIRONMENTAL PERFORMANCE CONDITIONS**

HOURS OF OPERATION

- The Applicant **must** comply with the operating hours set out in Table 1.

Table 1: Operating Hours

Activity	Operating Hours
<ul style="list-style-type: none"> • Quarrying operations • Deliveries • Dispatch of finished bricks 	6am to 6pm, Monday to Friday 6am to 1pm, Saturday No activities on Sundays or Public Holidays
Brick making operations (except dispatch of finished bricks)	24 hours a day, 7 days a week
Construction activities	7am to 6pm, Monday to Friday 8am to 1pm, Saturday No construction to be undertaken on Sundays or Public Holidays

NOISE

Noise Criteria

- The Applicant **must** ensure that the noise generated by the development does not exceed the criteria in Table 2 at any residence on privately-owned land.

Table 2: Noise criteria dB(A)

Activity	Receiver	Day/Evening/Shoulder	Night	
		<i>L_{Aeq(15 min)}</i>	<i>L_{Aeq(15 min)}</i>	<i>L_{A1(max)}</i>
Brick making and quarrying	R1, R2	47	Not Applicable	
	R3, R4, R14	46		
	R15, R17	45		
	All other receivers	44		
Brick making	All receivers	44	43	53

Notes:

- To locate the receivers referred to in Table 2 refer to Appendix 3.
- After the first review on any EPL granted for this development under Section 78 of the POEO Act, nothing in this consent prevents the EPA from imposing stricter noise limits on the quarrying operations on site under the EPL.

Appendix 5 sets out the metrological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Applicant has a written agreement with the relevant landowner/s to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

Construction Noise

- The Applicant **must** manage noise generated during the construction of the new site access road and associated road alignment works, and the noise bund adjacent to Greendale Road, in accordance with the guidelines specified in Table 2 of the *Interim Construction Noise Guideline*.

Note: Management guidelines are applicable to receivers 3 and 4, shown in Appendix 3.

Noise Bunds

4. The Applicant must ensure that the noise bund adjacent to the northern boundary of the extraction area is constructed prior to the commencement of quarrying operations in the extension area.
- 4A. The Applicant must ensure that the noise bund adjacent to Greendale Road is constructed prior to the commencement of brick making operations.

Operating Conditions

5. The Applicant **must**:
 - (a) implement all reasonable and feasible mitigation measures to minimise construction, operational and road noise of the development;
 - (b) implement periods of respite during the construction of the new site access road and associated road alignment works, and the noise bund adjacent to Greendale Road;
 - (c) regularly assess noise monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the noise criteria in this consent;
 - (d) maintain the effectiveness of noise suppression equipment on plant and equipment on site;
 - (e) minimise the noise impacts of the development during meteorological conditions under which the noise criteria in this consent do not apply (see Appendix 5); and
 - (f) carry out regular noise monitoring to determine whether the development is complying with the relevant conditions of this consent, to the satisfaction of the Secretary.

Noise Management Plan

6. The Applicant **must** prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
 - (a) be prepared in consultation with the EPA;
 - (b) be submitted to the Secretary for approval prior to the commencement of **development** under this consent, unless the Secretary agrees otherwise;
 - (c) describe the reasonable and feasible mitigation measures that would be implemented to ensure:
 - construction noise is minimise;
 - compliance with the relevant noise criteria and operating conditions in this consent;
 - best management practice is being employed; and
 - the noise impacts of the development are minimised during meteorological conditions under which the noise criteria in this consent do not apply;
 - (d) describe the proposed noise management system on site; and
 - (e) include a quarterly (or as otherwise agreed with the Secretary) noise monitoring program that:
 - uses attended monitoring to evaluate the compliance of the development against the noise criteria in this consent;
 - evaluates and reports on the effectiveness of the noise management system and the best practice noise management measures; and
 - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

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

AIR QUALITY

Air Quality Criteria

7. The Applicant **must** implement all reasonable and feasible avoidance and mitigation measures so that particulate matter emissions generated by the development do not exceed the criteria in Tables 3 to 6 at any residence on privately-owned land.

Table 3: Long-Term Criteria for Particulate Matter

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

Table 4: Short-Term Criteria for Particulate Matter

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

Table 5: Long-Term Criteria for Deposited Dust

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

Table 6: Long and Short-Term Stack Emissions

Pollutant	Averaging period	^d Criterion
Sulphur Dioxide	10-minute	712 µg/m ³
	1-Hour	570 µg/m ³
	24-Hour	228 µg/m ³
	Annual	60 µg/m ³
Nitrogen Dioxide	1-Hour	246 µg/m ³
	Annual	62 µg/m ³
Hydrogen Chloride	1 hour	0.14 mg/m ³

Notes to Tables 3-6:

- ^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources).
- ^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own).
- ^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
- ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Secretary in consultation with EPA.

Operating Conditions

8. The Applicant **must**:
- implement all reasonable and feasible measures to minimise the stack and dust emissions of the development;
 - minimise surface disturbance and maximise progressive rehabilitation;
 - minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note (d) to Tables 3-6 above); and
 - monitor and report on compliance with the relevant air quality conditions in this consent; to the satisfaction of the Secretary.

Air Quality Management Plan

9. The Applicant **must** prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with the EPA;
 - be submitted to the Secretary for approval prior to the commencement of **development** under this consent, unless the Secretary agrees otherwise;
 - describe the measures that would be implemented to ensure:
 - compliance with the air quality criteria and operating conditions under this consent;
 - best practice management is being employed; and
 - the air quality impacts of the development are minimised during adverse meteorological conditions;
 - describe the air quality management system; and
 - include an air quality monitoring program that:
 - evaluates and reports on:
 - the effectiveness of the air quality management system; and
 - compliance with the air quality criteria and operating conditions; and
 - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.

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

METEOROLOGICAL MONITORING

10. For the life of the development, the Applicant **must** ensure that there is a suitable meteorological station operating in the vicinity of the site that:
 - (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
 - (b) is capable of continuous measurement of stability class, in accordance with the *NSW Industrial Noise Policy*, or as otherwise approved by EPA.

TRANSPORT

Monitoring of Product Transport

11. The Applicant **must** keep accurate records of the:
 - (a) **tonnage** of bricks transported from the site (monthly and annually);
 - (b) amount of raw material imported to the site (monthly and annually); and
 - (c) **tonnage of each type of raw materials imported to the site (monthly and annually);** and provide the Secretary with a summary of this information upon request.

Parking

12. The Applicant **must** provide sufficient parking on-site for all development-related traffic, in accordance with Camden Council's parking codes, to the satisfaction of the Secretary.

Operating Conditions

13. The Applicant **must** ensure that:
 - (a) all development-related heavy vehicles enter and exit the site in a forward direction;
 - (b) all laden vehicles entering or exiting the site have their loads covered (with the exception of vehicles carrying bricks);
 - (c) all laden vehicles that have accessed the extraction and/or stockpile areas are cleaned of sand and other material that may fall on the road, before leaving the site;
 - (d) all heavy vehicles exiting the site travel east of the site along Greendale Road to The Northern Road and/or Bringelly Road;
 - (e) the dispatch of laden trucks is avoided during the peak drop-off and pick-up times at the Bringelly Public School to the greatest extent practicable, particularly prior to the upgrade of the Greendale Road/Bringelly Road intersection by RMS; and
 - (f) no trucks queue at the entrance to the site before 6am.

Access Road Intersection Construction

14. Within 12 months of commencing development under this consent, unless otherwise agreed with the Secretary, the Applicant **must** design and construct the new site access road intersection with Greendale Road in accordance with applicable AUSTRROADS standards, to the satisfaction of Camden Council. The Applicant **must** notify the Secretary in writing within 30 days of obtaining Council approval.

Within 7 days of completing construction and the new site access road being operational, the existing site access road **must** be permanently closed.

Transport Management Plan

15. The Applicant **must** prepare a Transport Management Plan for the development to the satisfaction of the Secretary. This plan **must**:
 - (a) be prepared in consultation with RMS, Camden Council, Liverpool City Council and Bringelly Public School, and be submitted to the Secretary for approval prior to the commencement of **development** under this consent, unless the Secretary agrees otherwise;
 - (b) describe the measures that would be implemented to ensure compliance with the transport operating conditions under this consent, including specific measures to avoid **the arrival and**

- [dispatch](#) of laden trucks from the site during the peak drop-off and pick-up times at the Bringelly Public School;
- (c) include a Code of Conduct for heavy vehicle drivers that addresses:
- travelling speeds;
 - [procedures to minimise noise including a regular Truck Noise Auditing Program](#);
 - [procedures to minimise diesel exhaust emissions](#);
 - instructions to avoid grouping or convoying of trucks;
 - procedures to ensure that drivers adhere to the designated haulage routes and the haulage hours permitted under this consent;
 - instructions to drivers not to overtake each other on the haulage route, as far as practicable, and to maintain appropriate distances between vehicles; and
 - instruction to drivers to be properly safety conscious and to strictly obey all traffic regulations, particularly in relation to school zones along Greendale Road; and
- (d) describe the measures that would be put in place to ensure compliance with the drivers' Code of Conduct and include a program to monitor the effectiveness of the implementation of these measures.

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

SOIL AND WATER

Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the development, including in respect of the extraction and/or interception of groundwater.

Water Supply

16. The Applicant [must](#) ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations under the consent to match its available water supply to the satisfaction of the Secretary.

Water Discharges

17. The Applicant [must](#) comply with the discharge limits in any EPL or with Section 120 of the POEO Act.

Water Management Plan

18. The Applicant [must](#) prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared by suitably qualified person/s approved by the Secretary;
 - (b) be prepared in consultation with the EPA and [DPI Water](#);
 - (c) be submitted to the Secretary for approval [prior to the commencement of development under this consent](#), unless the Secretary agrees otherwise;
 - (d) include a Site Water Balance that:
 - includes details of:
 - quantity of water required to support operations;
 - sources and security of water supply;
 - water use and management on site;
 - reporting procedures; and
 - measures to be implemented to minimise potable water use on site;
 - (e) include a Surface Water Management Plan, that includes:
 - baseline data on surface water flows and quality in the watercourses that could be affected by the development;
 - a description of the surface water management system on site, including:
 - clean water diversions;
 - erosion and sediment controls;
 - the dirty water management system; and
 - water storages (addressing maximum harvestable rights if applicable);
 - performance criteria, including trigger levels for investigating any potentially adverse surface water quality impacts;
 - a program to monitor and report on:
 - any surface water discharges;

- the effectiveness of the water management system; and
 - surface water flows and quality in local watercourses;
 - a plan to respond to any exceedances of the performance criteria.
- (f) a Groundwater Management Plan, which includes:
- baseline data on groundwater levels, yield and quality in surrounding aquifers;
 - groundwater assessment and performance criteria, including trigger levels for investigating potentially adverse groundwater impacts;
 - a program to monitor:
 - groundwater inflows to the quarry pit; and
 - impacts of the development on surrounding aquifers;
 - an analysis of the monitoring results to determine long-term water levels within the quarry void; and
 - a plan to respond to any exceedances of the performance criteria.

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

BIODIVERSITY

Biodiversity Offset Strategy

19. The Applicant **must** implement the Biodiversity Offset Strategy described in the EIS, as summarised in Table 7 and shown conceptually in Appendix 4, to the satisfaction of the Secretary.

Table 7: Summary of the Biodiversity Offsets

Area	Offset Criteria	Size (Ha)
On-site offset	Existing vegetation to be enhanced to establish an area of native woodland comprising species associated with Cumberland Plain Woodland.	1.93

Security of Offsets

20. Within 2 years of **notifying the Department of commencement of development (see condition 8 of Schedule 2)**, unless otherwise agreed with the Secretary, the Applicant **must** make suitable arrangements to provide appropriate long-term security for the offset area, to the satisfaction of the Secretary.

Note: Mechanisms to provide appropriate long term security to the land within the Biodiversity Offset Strategy include a Biobanking Agreement, Voluntary Conservation Agreement or an alternative mechanism that provides for a similar conservation outcome. Any mechanism must remain in force in perpetuity.

Biodiversity Management Plan

21. The Applicant **must** prepare a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the OEH and Camden Council;
 - (b) be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;
 - (c) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;
 - (d) describe the short, medium, and long term measures that would be implemented to:
 - manage the remnant vegetation and habitat on the site and in the offset area and;
 - implement the biodiversity offset strategy, including detailed performance and completion criteria;
 - (e) include performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);
 - (f) include a description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
 - maximising the salvage of resources within the approved disturbance area - including vegetative, soil and cultural heritage resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;

- minimising the impacts on fauna on site, including pre-clearance surveys and minimising the potential exposure to tailings;
 - controlling weeds and feral pests;
 - controlling erosion;
 - controlling access; and
 - bushfire management;
- (g) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
- (h) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

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

Conservation Bond

22. Within 6 months of the approval of the Biodiversity Management Plan, the Applicant **must** lodge a conservation bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.

The sum of the bond **must** be determined by:

- a. calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and
- b. employing a suitably qualified quantity surveyor to verify the calculated costs,
- c. to the satisfaction of the Secretary.

The calculation of the conservation bond must be submitted to the Department for approval at least 1 month prior to lodgement of the final bond.

If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.

If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works.

Notes:

- *Alternative funding arrangements for long term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEHL as part of a Biobanking Agreement or transfer to conservation reserve estate (or any other mechanism agreed with OEHL) can be used to reduce the liability of the conservation bond.*
- *The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy or the completion of major milestones within the approved plan.*

REHABILITATION

Rehabilitation Objectives

23. The Applicant **must** rehabilitate the site to the satisfaction of the Secretary. Rehabilitation must:
- a. comply with the objectives in Table 8; and
 - b. be generally consistent with the proposed rehabilitation strategy in the EIS, and the final land form shown conceptually in Appendix 4 (unless modified by the Final Land Use Options Plan, prepared in accordance with condition 25 of this consent).

Table 8: Rehabilitation Objectives

Feature	Objective
Site (as a whole)	<ul style="list-style-type: none"> • Safe, stable and non-polluting • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native species and habitat

Surface infrastructure	<ul style="list-style-type: none"> To be decommissioned and removed (unless the Secretary agrees otherwise)
Final void	<ul style="list-style-type: none"> Minimise the size, depth and slope of the batters of the final void Minimise the drainage catchment of the final void
Quarry pit floor	<ul style="list-style-type: none"> Landscaped and revegetated using native flora species, above the anticipated final void water level
Community	<ul style="list-style-type: none"> Ensure public safety

Progressive Rehabilitation

24. The Applicant **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 stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.

Final Land Use Options Plan

25. The Applicant **must** prepare a Final Land Use Options Plan for the site to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with DRE and Camden Council;
 - be submitted to the Secretary for approval within 2 years of the date of [notifying the Department of commencement of development \(see condition 8 of Schedule 2\)](#), unless the Secretary agrees otherwise;
 - provide details of the conceptual final landform and associated final land uses for the site;
 - ensure that the conceptual final land form is compatible with surrounding land uses, and is consistent with the rehabilitation objectives in Table 8 and the objectives of the Growth Centres SEPP for the South West Growth Centre;
 - inform the Rehabilitation Management Plan (prepared in accordance with condition 26 of this consent); and
 - be reviewed every 7 years to account for applicable land use priorities, and if necessary updated.

Rehabilitation Management Plan

26. The Applicant **must** prepare a Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with OEH, DRE, [DPI Water](#) and Camden Council;
 - be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;
 - provide details of the conceptual final landform and associated land uses for the site (which must be consistent with the Final Land Use Options Plan under condition 25 of this consent);
 - describe the short, medium and long term measures that would be implemented to:
 - manage remnant vegetation and habitat on site; and
 - ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this consent;
 - include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggers for any necessary remedial action;
 - include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and
 - include details of who would be responsible for monitoring, reviewing, and implementing the plan.

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

Note: The Rehabilitation Management Plan must be reviewed, and if necessary updated, following any update of the Final Land Use Options Plan.

HERITAGE

Heritage Management Plan

27. The Applicant **must** prepare a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:
- a. be prepared in consultation with OEH;
 - (a) be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;
 - b. describe the measures that would be implemented to:
 - manage identified heritage objects, previously unidentified heritage objects or the discovery of any human remains on site;
 - ensure ongoing consultation with Aboriginal stakeholders in the conservation and management of any Aboriginal cultural heritage values on site; and
 - protect sites identified adjacent to the development.

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

VISUAL

28. The Applicant **must** establish a vegetation screen on both noise bunds, as soon as practicable after construction of the bunds, to minimise visibility of site infrastructure from outside the development area. Following establishment, the Applicant **must** maintain the vegetation screen, to the satisfaction of the Secretary.
29. The Applicant **must**:
- a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development; and
 - b) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting*, or its latest version.

BUSHFIRE MANAGEMENT

30. The Applicant **must**:
- a) ensure that the development is suitably equipped to respond to any fires on site; and
 - b) assist the Rural Fire Service, emergency services and National Parks and Wildlife Service as much as practicable if there is a fire in the surrounding area.

WASTE

31. Prior to importing onto the site any material that may be classified as a waste under the EPA *Waste Classification Guidelines 2009* (or its latest version), the Applicant **must** obtain a 'resource recovery exemption' under the POEO Act and provide evidence of this exemption to the Department.

Note: This condition does not apply to routine deliveries to the site.

32. The Applicant **must**:
- a) manage on-site sewage treatment and disposal in accordance with the requirements of its EPL, and to the satisfaction of the EPA and Camden Council; and
 - b) pump all sewage generated and stored on-site to a sewage treatment facility, unless otherwise agreed with the Secretary.
33. The Applicant **must**:
- a) minimise the waste generated by the development;
 - b) ensure that the waste generated by the development is appropriately stored, handled, and disposed of; and
 - c) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. As soon as practicable after obtaining monitoring results showing an exceedance of any relevant criteria in schedule 3, the Applicant **must** notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria.

INDEPENDENT REVIEW

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

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

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the development is complying with the relevant criteria in schedule 3;
 - if the development is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and
- (b) give the Secretary and landowner a copy of the independent review.

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

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

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

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

Adaptive Management

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

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

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

Management Plan Requirements

3. The Applicant must ensure that the Management Plans required under this consent are prepared in accordance with any relevant guidelines, and include:
 - (a) detailed baseline data;
 - (b) a description of:
 - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - any relevant limits or performance measures/criteria; and
 - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;
 - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
 - (d) a program to monitor and report on the:

- impacts and environmental performance of the development; and
 - effectiveness of any management measures (see (c) above);
- (e) a contingency plan to manage any unpredicted impacts and their consequences;
- (f) a program to investigate and implement ways to improve the environmental performance of the development over time;
- (g) a protocol for managing and reporting any:
- incidents;
 - complaints;
 - non-compliances with statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
- (h) a protocol for periodic review of the plan.

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

Annual Review

4. By the end of September each year, the Applicant **must submit a report to the Department reviewing** the environmental performance of the development to the satisfaction of the Secretary. This review must:
- (a) describe the development (including rehabilitation) that was carried out in the previous **financial** year, and the development that is proposed to be carried out over the current **financial** year;
- (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous **financial** year, which includes a comparison of these results against:
- the relevant statutory requirements, limits or performance measures/criteria;
 - the monitoring results of previous years; and
 - the relevant predictions in the **documents in condition 2(a) 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 development;
- (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
- (f) describe what measures will be implemented over the current **financial** year to improve the environmental performance of the development.

Revision of Strategies, Plans and Programs

5. **Within 3 months of the submission of an:**
- (a) **Annual Review under condition 4 above;**
- (b) **incident report under condition 7 below;**
- (c) **audit report under condition 9 below; and**
- (d) **any modifications to this consent,**
- the Applicant **must review the strategies, plans and programs required under this consent, to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.**

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

Community Consultative Committee

6. The Applicant **must** establish and operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Developments* (Department of Planning, 2007, or its latest version), and be operating **prior to the commencement of development under this consent.**

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.*

- *In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Applicant, Camden Council and the local community.*

REPORTING

Incident Reporting

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

Regular Reporting

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

INDEPENDENT ENVIRONMENTAL AUDIT

9. Within a year of **commencing development under this consent**, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant **must** commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
 - (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licence (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 development, and/or any assessment, plan or program required under these approvals; **and be conducted and reported to the satisfaction of the Secretary.**

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

10. Within **12 weeks of commencing** this audit, unless the Secretary agrees otherwise, the Applicant **must** submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, including a timetable for the implementation of any measures proposed to address the recommendations in the audit report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented.

Within 7 days of commencing the audit, the Applicant must notify the Department in writing of the commencement of the audit.

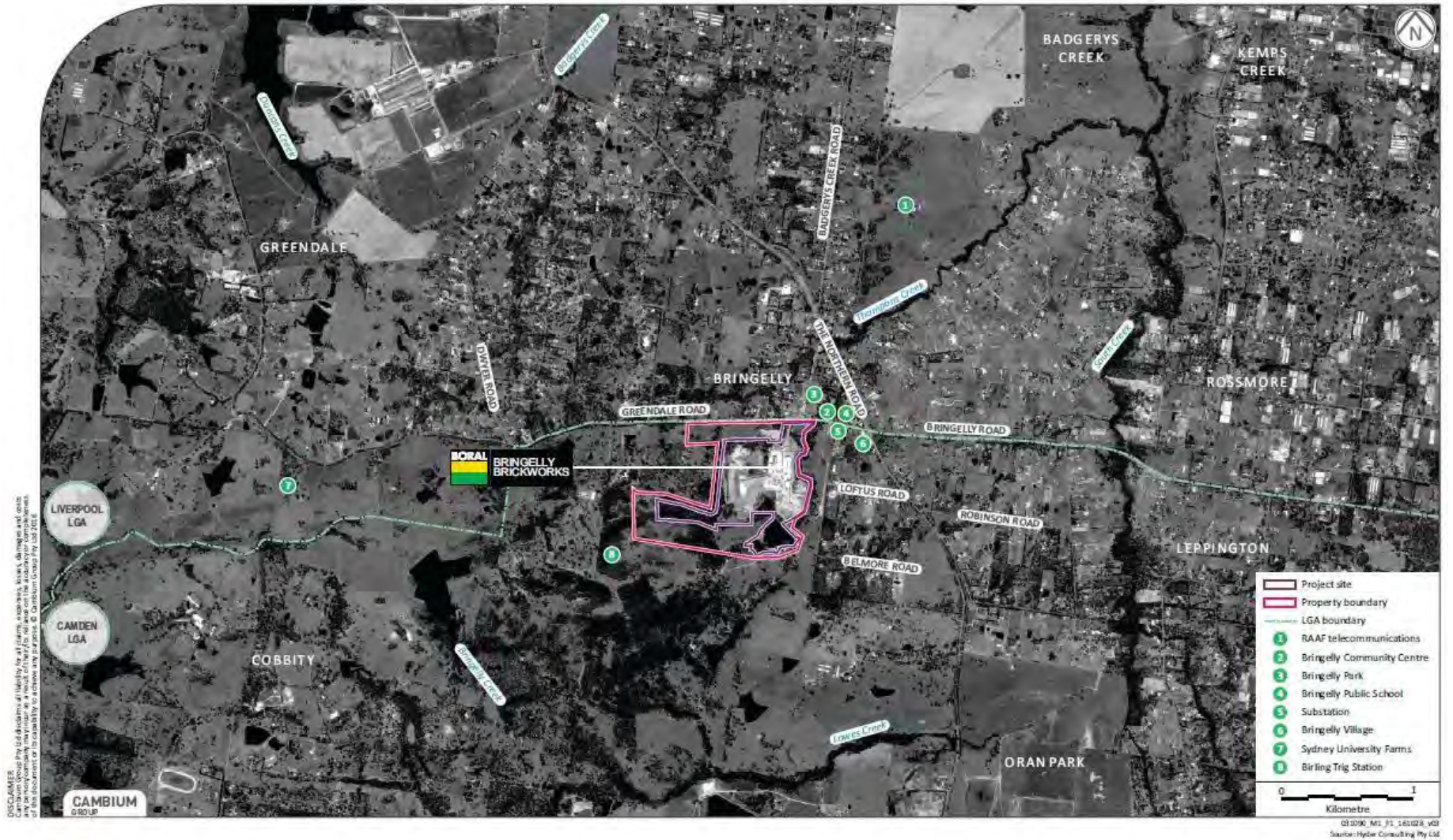
ACCESS TO INFORMATION

11. Within 6 months of **commencing development under this consent**, the Applicant **must**:
 - (a) make copies of the following publicly available on its website:
 - the documents in **condition 2(a) of Schedule 2**;
 - current statutory approvals for the development;
 - approved strategies, plans and programs required under the conditions of this consent;
 - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - a complaints register, which is to be updated monthly;
 - minutes of CCC meetings;
 - the annual reviews of the development (for the last 5 years);
 - any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;
 - any other matter required by the Secretary; and

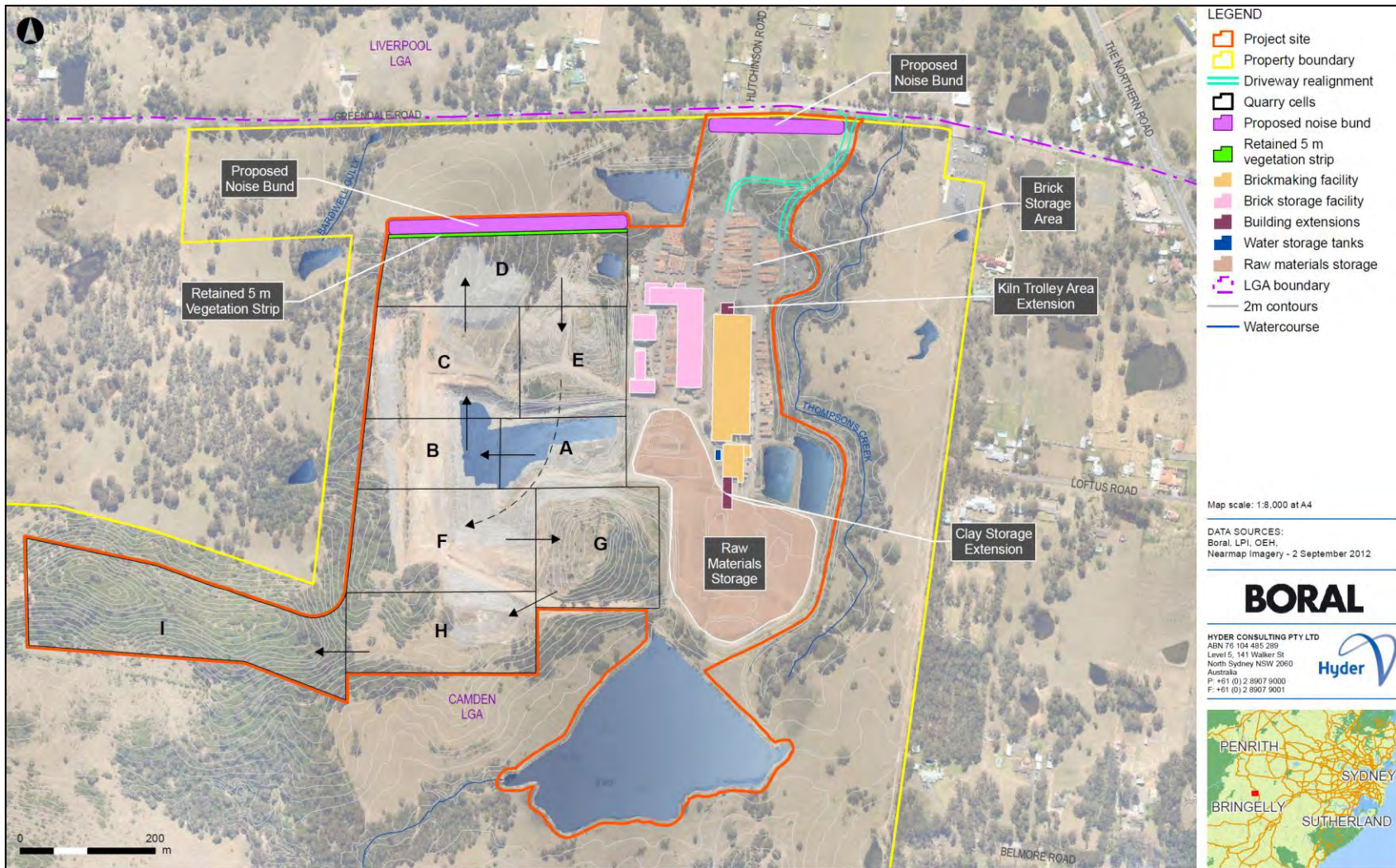
(b) keep this information up-to-date,
to the satisfaction of the Secretary.

APPENDIX 1 DEVELOPMENT AREA

BRINGELLY BRICKWORKS AND QUARRY EXPANSION - MODIFICATION 1



APPENDIX 2 DEVELOPMENT LAYOUT

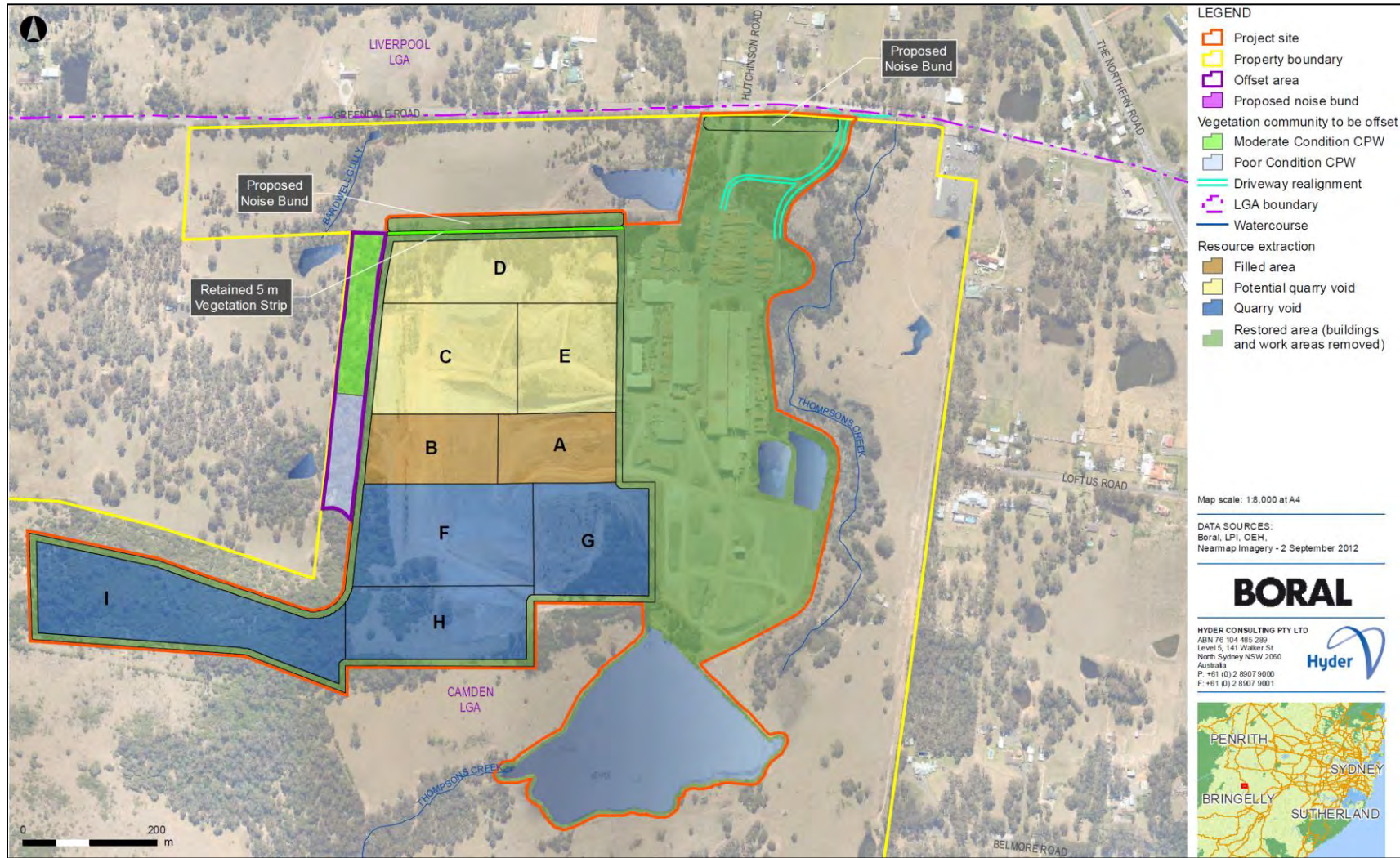


**APPENDIX 3
RECEIVER LOCATIONS**



Receiver number	Receiver address
1	55 Loftus Road
2	54 Loftus Road
3	20 Greendale Road
4	9 Greendale Road
5	5 Greendale Road (Bringelly Community Centre)
6	46 Loftus Road
7	36 Loftus Road
8	47 Loftus Road
9	37 Loftus Road
10	27 Loftus Road
11	26 Loftus Road
12	15 Loftus Road
13	5 Loftus Road
14	23 Greendale Road
15	27 Greendale Road
16	29 Greendale Road
17	25 Greendale Road
18	31 Greendale Road
19	35 Greendale Road
20	170 Tyson Road
21	196 Greendale Road
22	46 Belmore Road
23	55 Belmore Road
24	63 Belmore Road
25	67 Belmore Road
26	73 Belmore Road
27	83-85 Belmore Road
28	76 Belmore Road
29	86 Belmore Road
30	87 Belmore Road
31	93 Belmore Road
32	95-97 Belmore Road
33	107 Belmore Road
34	96 Belmore Road
35	108 Belmore Road
36	1037 Northern Road
37	10 Greendale Road
38	Bringelly Public School

APPENDIX 4 CONCEPTUAL FINAL LANDFORM AND BIODIVERSITY OFFSET STRATEGY



APPENDIX 5 NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

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

Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions **must** be that recorded by the meteorological station on or in the vicinity of the site.

Compliance Monitoring

3. Unless directed otherwise by the Secretary, quarterly attended monitoring is to be used to evaluate compliance with the relevant conditions of consent.

Note: The Secretary may direct that the frequency of attended monitoring increase or decrease at any time during the life of the development.

4. Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
 - (a) monitoring locations for the collection of representative noise data;
 - (b) meteorological conditions during which collection of noise data is not appropriate;
 - (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
 - (d) modifications to noise data collected including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.

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Noise Monitoring Assessment

PGH Bringelly Brickworks

Bringelly, NSW

Quarter 1 Ending March 2022

Document Information

Noise Monitoring Assessment

PGH Bringelly Brickworks

Bringelly, NSW

Quarter 1 Ending March 2022

Prepared for: PGH Bricks & Pavers Pty Ltd

Greendale Road

Bringelly NSW 2256



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1 Introduction

Muller Acoustic Consulting Pty Ltd (MAC) has been commissioned by PGH Bricks & Pavers Pty Ltd (PGH) to complete a Noise Monitoring Assessment (NMA) for the PGH Bringelly Brickworks (the 'site') at Greendale Road, Bringelly, NSW.

This assessment has been undertaken for the quarterly period ending March 2022, and forms part of the annual noise monitoring program to address conditions outlined in the Development Consent.

The NMA has quantified potential operational and sleep disturbance noise emissions from the operation and has been conducted in accordance with the following documents:

- NSW Environment Protection Authority (EPA), Noise Policy for Industry (NPI), 2017;
- Bringelly Brickworks Noise Management Plan (NMP ref BRK-BRI-NMP Version 4 dated 12.02.19), 2019;
- Bringelly Brickworks Development Consent, 2015 (SSD_5684); and
- Australian Standard AS 1055:2018 - Acoustics - Description and measurement of environmental noise.

A glossary of terms, definitions and abbreviations used in this report is provided in **Appendix A**.

The Development Consent is provided in **Appendix B**.

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2 Noise Criteria

The Bringelly Brickworks NMP outlines the applicable noise criteria for representative residential receivers surrounding the site and are presented in **Table 1**. The site includes the operation of a quarry and brickmaking plant, and as the quarry operates during the daytime, there are separate criteria relating to each period.

Table 1 Noise Criteria ¹				
Activity	Receiver	Day/Evening/Shoulder ^{2,3}		Night ²
		dB LAeq(15min)	dB LAeq(15min)	dB LA1(max) ³
Brickmaking and quarrying	R1, R2	47		
	R3, R4, R14	46		
	R15, R17	45		N/A
	All other receivers	44		
Brickmaking	All Receivers	44	43	53

Note 1: Noise criteria adopted from the Development Consent.

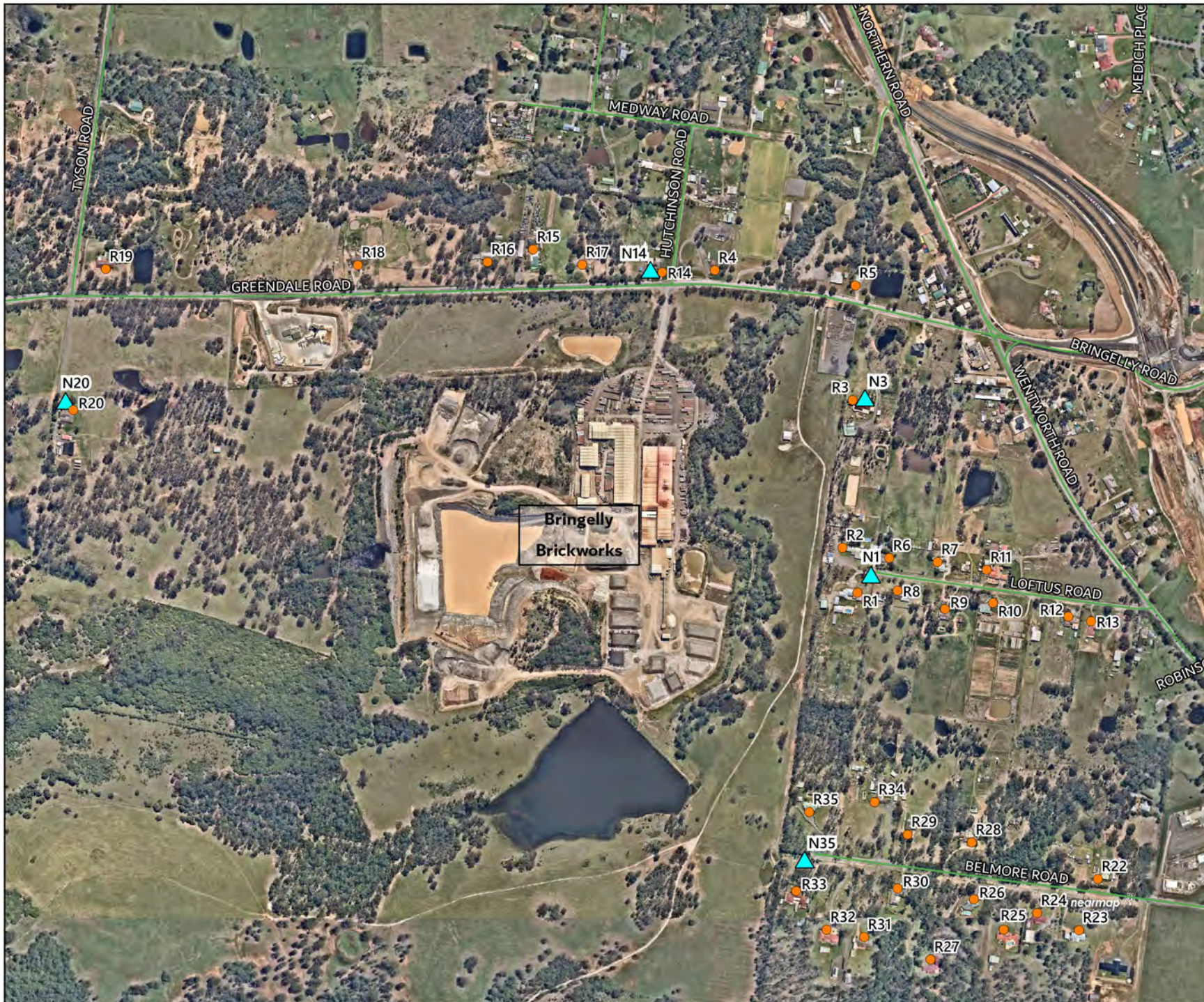
Note 2: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Note 3: Periods and parameters as expressed in the Development Consent

Figure 1 presents the identified receiver locations and representative measurement locations.

Section 4 of the Bringelly Brickworks Development Consent, 2015 (SSD_5684) outlines requirements for Noise Bunds adjacent to the northern boundary of the extraction area and adjacent to Greendale Road. It is noted that the proposed new access road and associated noise bund adjacent to Greendale Road are not in place at the time of the monitoring. Further details on review of noise mitigation measures for the site are contained in a historic report (MAC190946LR1, 29 September 2019).

FIGURE 1
 SITE LAYOUT
 MAC190946-02
 PGH Bringelly Brickworks



KEY

- ▲ Monitoring Locations
- Receivers



3 Assessment Methodology

The attended noise measurements were conducted in general accordance with the procedures described in Australian Standard AS 1055:2018, "Acoustics - Description and Measurement of Environmental Noise". Measurements were conducted using a Svantek Type 1, 971 noise analyser. The acoustic instrumentation used carries current NATA calibration and complies with AS IEC 61672.1-2019- Electroacoustics - Sound level meters - Specifications. Calibration of all instrumentation was checked prior to and following measurements. Drift in calibration did not exceed ± 0.5 dBA.

Noise measurements were of 15-minutes in duration and where possible, throughout each survey the operator quantified the contribution of each significant noise source. Measurements were conducted at five locations (N1, N3, N14, N20, N35) on Wednesday 2 February 2022 during the day, evening and night periods to satisfy the requirements of the NMP.

Extraneous noise sources were excluded from the analysis to determine the $L_{Aeq}(15min)$ quarry noise contribution for comparison against the relevant criteria. In the event of site attributed noise being above criteria, prevailing meteorological conditions for the monitoring period are analysed in accordance with Fact Sheet D of the NPI to determine the stability category present at the time of each attended measurement.

Where the site is inaudible, the contribution is estimated to be at least 10dBA below the ambient noise level.

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4 Results

4.1 Assessment Results - Location N1

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N1 for the NMA are presented in **Table 2**.

Table 2 Operator-Attended Noise Survey Results – Location N1

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA1	LAeq	LA90		
02/02/2022	11:46 (Day)	69	57	47	WD: S WS: 0.2m/s Rain: Nil	Distant traffic 45-50
						Local traffic 50-75
						Birds 50-64
						Car horn 69
						Construction 48-66
						PGH not audible
PGH Site LAeq(15min) Contribution						<35
02/02/2022	20:37 (Evening)	52	44	42	WD: S WS: 0.3m/s Rain: Nil	Distant traffic 40-45
						Local traffic 45-53
						Birds 40-43
						Insects 35-41
						Dogs 43-47
						PGH site hum <30-33
						PGH impact (5 secs) 40-43
PGH Site LAeq(15min) Contribution						<35
02/02/2022	22:35 (Night)	58	48	40	WD: S WS: 0.2m/s Rain: Nil	Distant traffic 44-56
						Local traffic 50-67
						Dogs 40-48
						Insect 44-45
						PGH site hum 30-33
PGH Site LAeq(15min) Contribution						<35
PGH Site LA1(max) Contribution						<45

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

4.2 Assessment Results - Location N3

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N3 for the NMA are presented in **Table 3**.

Table 3 Operator-Attended Noise Survey Results – Location N3

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA1	LAeq	LA90		
02/02/2022	11:26 (Day)	52	43	37	WD: SE WS: 0.4m/s Rain: Nil	Distant traffic 38-42
						Birds 38-65
						Insects 35-37
						Wind <35
PGH Site LAeq(15min) Contribution						<35
02/02/2022	20:16 (Evening)	51	43	38	WD: S WS: 1.0m/s Rain: Nil	Distant traffic <40
						Local traffic 53-68
						Insects 45-50
						Birds 48-57
PGH Site LAeq(15min) Contribution						<35
02/02/2022	22:57 (Night)	73	44	38	WD: S WS: 0.2m/s Rain: Nil	Distant traffic 33-35
						Insects 41-43
						PGH site hum <30-34
						PGH impact (5 secs) 40-43
PGH Site LAeq(15min) Contribution						<35
PGH Site LA1(max) Contribution						46

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

4.3 Assessment Results - Location N14

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N14 for the NMA are presented in **Table 4**.

Table 4 Operator-Attended Noise Survey Results – Location N14

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA	
		LA1	LAeq	LA90			
02/02/2022	12:07 (Day)	78	66	43	WD: S WS: 0.4m/s Rain: Nil	Local traffic 55-86	
						Birds 40-50	
						Insects 33-35	
						Wind 40-43	
						Construction <40	
						Dogs 45-47	
						Truck entry at PGH (15 secs)	
						50-53	
						PGH Site LAeq(15min) Contribution	35
						02/02/2022	20:58 (Evening)
						Insects 50-55	
						Dogs 45-48	
						Aircraft 38-40	
						PGH site hum <35	
						PGH Site LAeq(15min) Contribution	<35
02/02/2022	22:18 (Night)	64	55	35	WD: N WS: 0.2m/s Rain: Nil	Local traffic 55-81	
						Dogs <35	
						Aircraft 40-46	
						Insects 35-38	
						PGH site hum <35	
						PGH Site LAeq(15min) Contribution	<35
						PGH Site LA1(max) Contribution	<45

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

4.4 Assessment Results - Location N20

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N20 for the NMA are presented in **Table 5**.

Table 5 Operator-Attended Noise Survey Results – Location N20

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA1	LAeq	LA90		
02/02/2022	12:28 (Day)	81	68	43	WD: S WS: 0.2m/s Rain: Nil	Local traffic 60-87
						Nearby front end loader (not site) 40-53
						Birds 45-50
						Insects <40
PGH Site LAeq(15min) Contribution						PGH not audible
PGH Site LAeq(15min) Contribution						<35
02/02/2022	21:40 (Evening)	72	60	41	WD: S WS: 0.1m/s Rain: Nil	Local traffic 50-86
						Insects 40-45
						Dogs 38-40
						PGH not audible
PGH Site LAeq(15min) Contribution						<35
PGH Site LAeq(15min) Contribution						<35
02/02/2022	22:00 (Night)	70	51	41	WD: S WS: 0.1m/s Rain: Nil	Distant traffic 40-45
						Local traffic 50-82
						Insects 47-50
						PGH not audible
PGH Site LAeq(15min) Contribution						<35
PGH Site LAeq(15min) Contribution						<35
PGH Site LA1(max) Contribution						<45

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

4.5 Assessment Results - Location N35

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N35 for the NMA are presented in **Table 6**.

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA						
		LA1	LAeq	LA90								
02/02/2022	11:02 (Day)	55	45	39	WD: SE WS: 0.3m/s Rain: Nil	Distant traffic 38-43						
						Local traffic 45-50						
						Birds 35-67						
						Insects <35						
						Wind 40-45						
						Lawnmower <35						
						PGH not audible						
						PGH Site LAeq(15min) Contribution					<35	
						02/02/2022	19:52 (Evening)	62	48	36	WD: W WS: 0.2m/s Rain: Nil	Distant traffic 30-37
												Dogs 32-33
Insects 30-63												
Aircraft 43-45												
Birds 35-66												
PGH reverse alarm (15secs)												
<35												
PGH Site LAeq(15min) Contribution					<35							
02/02/2022	23:22 (Night)	48	44	42	WD: S WS: 0.1m/s Rain: Nil							Distant traffic 40-45
												Insects 43-46
						Cattle <35						
						Local impact 67						
						PGH not audible						
						PGH Site LAeq(15min) Contribution					<35	
						PGH Site LA1(max) Contribution					<45	

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

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5 Discussion

Monitoring on Wednesday 2 February 2022 identified site noise was audible during all periods at monitoring location N14, during the evening period at monitoring location N35, and during the evening and night period at monitoring locations N1 and N3. Site was not audible during any period at monitoring location N20 and N35. Site attributable noise contributions were estimated to satisfy the relevant noise criteria at all locations during all assessment periods.

Audible site noise sources included the combustion fan, reverse alarm and trucks leaving the site on the access road. Extraneous noise sources measured included insects, birds, traffic, aircraft noise and dogs barking.

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6 Conclusion

Muller Acoustic Consulting Pty Ltd (MAC) has completed a Noise Monitoring Assessment (NMA) PGH Bricks & Pavers Pty Ltd (PGH) at the PGH Bringelly Brickworks (the 'site') at Greendale Road Bringelly, NSW. The assessment was completed to assess the site's compliance with the relevant noise criteria during Quarter 1, ending March 2022.

Attended noise monitoring was undertaken on Wednesday 2 February 2022 at five representative receiver locations. The assessment has identified that noise emissions generated by Bringelly Brickworks were occasionally audible, however quarry noise emissions were below the relevant noise criteria throughout the survey period, satisfying the relevant consent conditions.

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Appendix A – Glossary of Terms

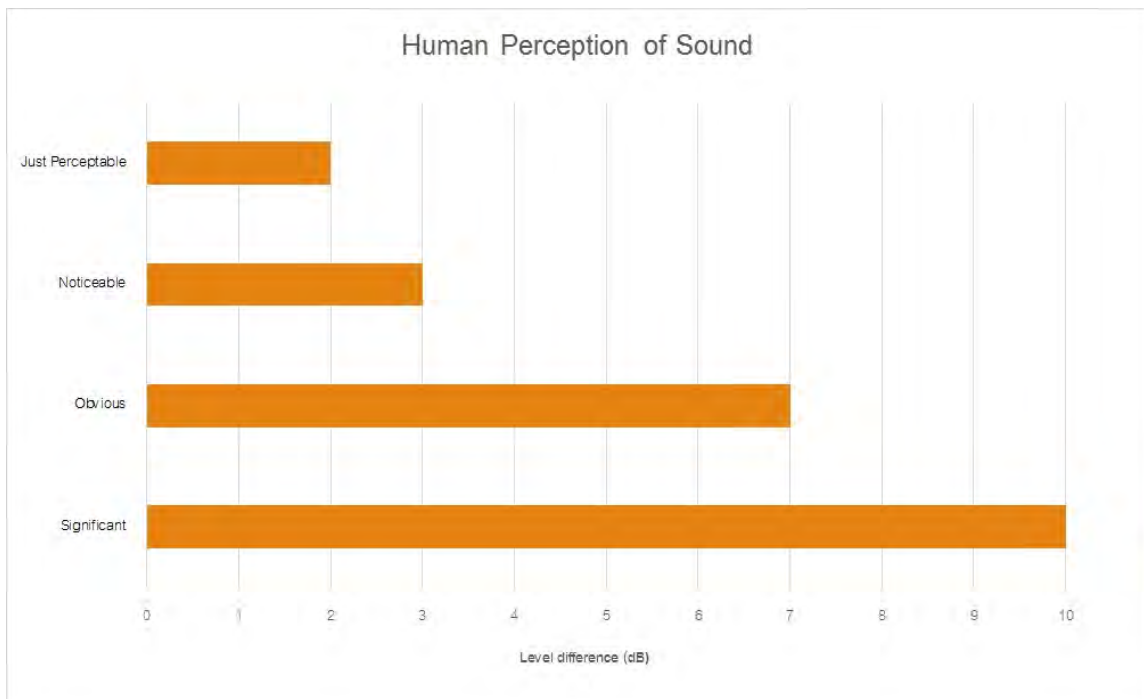
A number of technical terms have been used in this report and are explained in **Table A1**.

Table A1 Glossary of Acoustical Terms	
Term	Description
1/3 Octave	Single octave bands divided into three parts
Octave	A division of the frequency range into bands, the upper frequency limit of each band being twice the lower frequency limit.
ABL	Assessment Background Level (ABL) is defined in the NPI as a single figure background level for each assessment period (day, evening and night). It is the tenth percentile of the measured L90 statistical noise levels.
Ambient Noise	The total noise associated with a given environment. Typically, a composite of sounds from all sources located both near and far where no particular sound is dominant.
A Weighting	A standard weighting of the audible frequencies designed to reflect the response of the human ear to sound.
Background Noise	The underlying level of noise present in the ambient noise, excluding the noise source under investigation, when extraneous noise is removed. This is usually represented by the LA90 descriptor
dba	Noise is measured in units called decibels (dB). There are several scales for describing noise, the most common being the 'A-weighted' scale. This attempts to closely approximate the frequency response of the human ear.
dB(Z), dB(L)	Decibels Z-weighted or decibels Linear (unweighted).
Extraneous Noise	Sound resulting from activities that are not typical of the area.
Hertz (Hz)	The measure of frequency of sound wave oscillations per second - 1 oscillation per second equals 1 hertz.
LA10	A sound level which is exceeded 10% of the time.
LA90	Commonly referred to as the background noise, this is the level exceeded 90% of the time.
LAeq	Represents the average noise energy or equivalent sound pressure level over a given period.
LAm _{ax}	The maximum sound pressure level received at the microphone during a measuring interval.
Masking	The phenomenon of one sound interfering with the perception of another sound. For example, the interference of traffic noise with use of a public telephone on a busy street.
RBL	The Rating Background Level (RBL) as defined in the NPI, is an overall single figure representing the background level for each assessment period over the whole monitoring period. The RBL, as defined is the median of ABL values over the whole monitoring period.
Sound power level (L _w or SWL)	This is a measure of the total power radiated by a source in the form of sound and is given by $10 \cdot \log_{10} (W/W_0)$. Where W is the sound power in watts to the reference level of 10^{-12} watts.
Sound pressure level (L _p or SPL)	the level of sound pressure; as measured at a distance by a standard sound level meter. This differs from L _w in that it is the sound level at a receiver position as opposed to the sound 'intensity' of the source.

Table A2 provides a list of common noise sources and their typical sound level.

Table A2 Common Noise Sources and Their Typical Sound Pressure Levels (SPL), dBA	
Source	Typical Sound Pressure Level
Threshold of pain	140
Jet engine	130
Hydraulic hammer	120
Chainsaw	110
Industrial workshop	100
Lawn-mower (operator position)	90
Heavy traffic (footpath)	80
Elevated speech	70
Typical conversation	60
Ambient suburban environment	40
Ambient rural environment	30
Bedroom (night with windows closed)	20
Threshold of hearing	0

Figure A1 – Human Perception of Sound



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Appendix B – Development Consent

Development Consent

Section 89E of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning, I approve the development application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

These conditions are required to:

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

David Kitto
Executive Director
Resource Assessments and Business Systems

Sydney

2015

SCHEDULE 1

Application Number:	SSD_5684
Applicant:	Boral Bricks Pty Ltd
Consent Authority:	Minister for Planning
Land:	Lot 100 in DP 1203966
Development:	Bringelly Brickworks Extension Project

Modification 1 (October 2016 shown in [blue](#) text)

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DEFINITIONS

AHD	Australian Height Datum
Annual Review	The review required by condition 4 of schedule 5
Applicant	Boral Bricks Pty Ltd, or any other person or persons who rely on this consent to carry out the development that is subject to this consent
BCA	Building Code of Australia
Biodiversity offset strategy	The conservation and enhancement strategy described in the EIS, and shown conceptually in Appendix 4
Brick making operations	Includes the receipt, handling, processing, storage and transportation of raw materials on site, brick making on site and transportation of finished bricks on site
CCC	Community Consultative Committee
Conditions of consent	Conditions contained in schedules 1 to 5 inclusive
Construction	The demolition of buildings or works, carrying out of works and erection of buildings covered by this consent
CPI	Australian Bureau of Statistics Consumer Price Index
Date of commencement	The date notified to the Department by the Applicant under condition 8 of Schedule 2
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Environment
Development	The development described in the documents of condition 2(a) of Schedule 2
Development area	All land to which the development application applies, as listed under "Land" in schedule 1 and shown in Appendix 1
DPI Water	Department of Primary Industries - Water
DRE	Division of Resources and Energy, within the NSW Department of Industry
EEC	Endangered Ecological Community, as defined under the <i>Threatened Species Conservation Act 1995</i>
EIS	Environmental Impact Statement titled <i>Bringelly Brickworks and Quarry Expansion</i> (2 volumes), dated September 2013, as modified by the Response to Submissions titled, <i>Bringelly Brickworks and Quarry Expansion, Response to Submissions</i> dated February 2014 and the letter entitled <i>Bringelly Brickworks – Biodiversity Offsets</i> , dated 2 June 2014
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence under the POEO Act
Evening	The period from 6pm to 10pm
Extension area	The area outside of the existing quarry footprint (i.e. cells D, E, F, G, H and I, as shown conceptually in Appendix 2)
Feasible	Feasible relates to engineering considerations and what is practical to build
GDE	Groundwater Dependent Ecosystem
GPS	Global Positioning System
Growth Centres SEPP	<i>State Environmental Planning Policy (Sydney Regional Growth Centres) 2006</i>
Ha	Hectare
Incident	A set of circumstances that: <ul style="list-style-type: none"> • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this consent
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in schedules 3 and 4 of this consent

	where it is defined to mean the whole of a lot, or contiguous lots, owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
m	Metres
Minister	Minister for Planning, or delegate
Mitigation	Activities associated with reducing the impacts of the development
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NP&W Act	<i>National Parks and Wildlife Act 1974</i>
OEH	NSW Office of Environment and Heritage
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency or the Applicant (or its subsidiary)
Quarrying operations	Includes the removal of overburden and extraction, handling, storage and transportation of extractive materials on site
Raw materials	Raw materials imported for use in brick making including clay/shale and additives (such as manganese and iron oxides)
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Rehabilitation	The restoration of land disturbed by the development to a good condition, ensuring that it is safe, stable and non-polluting and appropriately revegetated
RMS	Roads and Maritime Services
Secretary	Secretary of the Department, or nominee
SEE (Mod 1)	Statement of Environmental Effects titled 'Section 96(1A) Modification Supporting Information' dated August 2016 and prepared by Element Environment, including the Response to Submissions document dated September 2016
Site	The land listed under "Land" in schedule 1
Shoulder	The period between 6am to 7am on Monday to Saturday
South West Growth Centre	An area of land identified under the Growth Centres SEPP

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this consent, the Applicant **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 development.

TERMS OF CONSENT

2. The Applicant **must**:
 - (a) carry out the development generally in accordance with the EIS **and SEE (Mod 1)**; and
 - (b) the conditions of this consent.

Note: The general layout of the development is shown in Appendix 2.

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

LIMITS ON CONSENT

Quarrying and Brick Making Operations

5. The Applicant may carry out quarrying **operations** and brick making operations from the date of commencement of development under this consent until 1 March 2045.

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

Production Limits

6. The Applicant **must** not:
 - (a) extract more than 200,000 tonnes of clay/shale from the site in any calendar year;
 - (b) produce more than 263,500 tonnes of bricks at the site in any calendar year;
 - (c) carry out quarrying operations beyond 46 m AHD; and
 - (d) receive more than **321,000** tonnes of raw materials required for brick making to the site in any calendar year.

Transportation Limits

7. The Applicant **must** not:
 - (a) transport more than 263,500 tonnes of bricks from the site in a calendar year;
 - (b) receive more than 90 trucks to the site per day or more than 18 trucks per hour; and
 - (c) dispatch more than 90 trucks from the site per day or more than 18 trucks per hour.

NOTIFICATION OF COMMENCEMENT

8. **Prior to commencing development under this consent, the Applicant must notify the Department in writing of the date on which it will commence development permitted under this consent.**

SURRENDER OF EXISTING DEVELOPMENT CONSENT

9. Within 4 months of commencing development under this consent, the Applicant must surrender the development consent (DA 91/1194) for existing operations on the site in accordance with Section 104A of the EP&A Act.

Following the commencement of development under this consent, the conditions of this consent (including any notes) shall prevail to the extent of any inconsistency with the conditions of the existing development consent (DA 91/1194).

STRUCTURAL ADEQUACY

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

Notes:

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

DEMOLITION

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

PROTECTION OF PUBLIC INFRASTRUCTURE

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

Note: This condition does not apply to any damage to roads caused as a result of general road usage.

OPERATION OF PLANT AND EQUIPMENT

13. The Applicant must ensure that all plant and equipment used on site or any monitoring equipment used off site for monitoring the performance of the development is:
- maintained in a proper and efficient condition; and
 - operated in a proper and efficient manner.

UPDATING AND STAGING STRATEGIES, PLANS OR PROGRAMS

14. With the approval of the Secretary, the Applicant may submit any strategies, plans or programs required by this consent on a progressive basis.

To ensure the strategies, plans or programs under the conditions of this consent are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval.

With the agreement of the Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this consent.

Notes:

- While any strategy, plan or program may be submitted on a progressive basis, the Applicant must ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times.
- If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage 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.

15. Until they are replaced by an equivalent strategy, plan or program approved under this consent, the Applicant **must** implement the existing strategies, plans or programs for the site that have been approved under DA 91/1194.

IDENTIFICATION OF APPROVED LIMITS OF EXTRACTION

16. Prior to undertaking quarrying operations in the extension area, the Applicant **must**:
 - (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction within the development area; and
 - (b) submit a survey plan of these boundaries with applicable GPS coordinates to the Secretary.
17. While quarrying operations are being carried out, the Applicant **must** ensure that these boundaries are clearly marked at all times to allow operating staff and inspecting officers to clearly identify the approved limits of extraction.

PRODUCTION DATA

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

DEVELOPER CONTRIBUTIONS

19. The Applicant **must** pay Camden Council road maintenance contributions of \$0.0811 for every tonne of material transported to and from the site, indexed to CPI. Each payment must be:
 - (a) paid to Council at the end of each calendar year; and
 - (b) based on weighbridge records of all supplementary brick making materials transported to the site and bricks and spoil transported from the site.

Note: If the parties are not able to agree on any aspect of the maintenance contributions, either party may refer the matter to the Secretary for resolution.

**SCHEDULE 3
ENVIRONMENTAL PERFORMANCE CONDITIONS**

HOURS OF OPERATION

- The Applicant **must** comply with the operating hours set out in Table 1.

Table 1: Operating Hours

Activity	Operating Hours
<ul style="list-style-type: none"> • Quarrying operations • Deliveries • Dispatch of finished bricks 	6am to 6pm, Monday to Friday 6am to 1pm, Saturday No activities on Sundays or Public Holidays
Brick making operations (except dispatch of finished bricks)	24 hours a day, 7 days a week
Construction activities	7am to 6pm, Monday to Friday 8am to 1pm, Saturday No construction to be undertaken on Sundays or Public Holidays

NOISE

Noise Criteria

- The Applicant **must** ensure that the noise generated by the development does not exceed the criteria in Table 2 at any residence on privately-owned land.

Table 2: Noise criteria dB(A)

Activity	Receiver	Day/Evening/Shoulder	Night	
		<i>L_{Aeq(15 min)}</i>	<i>L_{Aeq(15 min)}</i>	<i>L_{A1(max)}</i>
Brick making and quarrying	R1, R2	47	Not Applicable	
	R3, R4, R14	46		
	R15, R17	45		
	All other receivers	44		
Brick making	All receivers	44	43	53

Notes:

- To locate the receivers referred to in Table 2 refer to Appendix 3.
- After the first review on any EPL granted for this development under Section 78 of the POEO Act, nothing in this consent prevents the EPA from imposing stricter noise limits on the quarrying operations on site under the EPL.

Appendix 5 sets out the metrological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Applicant has a written agreement with the relevant landowner/s to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

Construction Noise

- The Applicant **must** manage noise generated during the construction of the new site access road and associated road alignment works, and the noise bund adjacent to Greendale Road, in accordance with the guidelines specified in Table 2 of the *Interim Construction Noise Guideline*.

Note: Management guidelines are applicable to receivers 3 and 4, shown in Appendix 3.

Noise Bunds

4. The Applicant must ensure that the noise bund adjacent to the northern boundary of the extraction area is constructed prior to the commencement of quarrying operations in the extension area.
- 4A. The Applicant must ensure that the noise bund adjacent to Greendale Road is constructed prior to the commencement of brick making operations.

Operating Conditions

5. The Applicant **must**:
 - (a) implement all reasonable and feasible mitigation measures to minimise construction, operational and road noise of the development;
 - (b) implement periods of respite during the construction of the new site access road and associated road alignment works, and the noise bund adjacent to Greendale Road;
 - (c) regularly assess noise monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the noise criteria in this consent;
 - (d) maintain the effectiveness of noise suppression equipment on plant and equipment on site;
 - (e) minimise the noise impacts of the development during meteorological conditions under which the noise criteria in this consent do not apply (see Appendix 5); and
 - (f) carry out regular noise monitoring to determine whether the development is complying with the relevant conditions of this consent, to the satisfaction of the Secretary.

Noise Management Plan

6. The Applicant **must** prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
 - (a) be prepared in consultation with the EPA;
 - (b) be submitted to the Secretary for approval prior to the commencement of **development** under this consent, unless the Secretary agrees otherwise;
 - (c) describe the reasonable and feasible mitigation measures that would be implemented to ensure:
 - construction noise is minimise;
 - compliance with the relevant noise criteria and operating conditions in this consent;
 - best management practice is being employed; and
 - the noise impacts of the development are minimised during meteorological conditions under which the noise criteria in this consent do not apply;
 - (d) describe the proposed noise management system on site; and
 - (e) include a quarterly (or as otherwise agreed with the Secretary) noise monitoring program that:
 - uses attended monitoring to evaluate the compliance of the development against the noise criteria in this consent;
 - evaluates and reports on the effectiveness of the noise management system and the best practice noise management measures; and
 - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

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

AIR QUALITY

Air Quality Criteria

7. The Applicant **must** implement all reasonable and feasible avoidance and mitigation measures so that particulate matter emissions generated by the development do not exceed the criteria in Tables 3 to 6 at any residence on privately-owned land.

Table 3: Long-Term Criteria for Particulate Matter

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

Table 4: Short-Term Criteria for Particulate Matter

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

Table 5: Long-Term Criteria for Deposited Dust

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

Table 6: Long and Short-Term Stack Emissions

Pollutant	Averaging period	^d Criterion
Sulphur Dioxide	10-minute	712 µg/m ³
	1-Hour	570 µg/m ³
	24-Hour	228 µg/m ³
	Annual	60 µg/m ³
Nitrogen Dioxide	1-Hour	246 µg/m ³
	Annual	62 µg/m ³
Hydrogen Chloride	1 hour	0.14 mg/m ³

Notes to Tables 3-6:

- ^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources).
- ^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own).
- ^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
- ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Secretary in consultation with EPA.

Operating Conditions

8. The Applicant **must**:
- implement all reasonable and feasible measures to minimise the stack and dust emissions of the development;
 - minimise surface disturbance and maximise progressive rehabilitation;
 - minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note (d) to Tables 3-6 above); and
 - monitor and report on compliance with the relevant air quality conditions in this consent; to the satisfaction of the Secretary.

Air Quality Management Plan

9. The Applicant **must** prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with the EPA;
 - be submitted to the Secretary for approval prior to the commencement of **development** under this consent, unless the Secretary agrees otherwise;
 - describe the measures that would be implemented to ensure:
 - compliance with the air quality criteria and operating conditions under this consent;
 - best practice management is being employed; and
 - the air quality impacts of the development are minimised during adverse meteorological conditions;
 - describe the air quality management system; and
 - include an air quality monitoring program that:
 - evaluates and reports on:
 - the effectiveness of the air quality management system; and
 - compliance with the air quality criteria and operating conditions; and
 - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.

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

METEOROLOGICAL MONITORING

10. For the life of the development, the Applicant **must** ensure that there is a suitable meteorological station operating in the vicinity of the site that:
 - (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
 - (b) is capable of continuous measurement of stability class, in accordance with the *NSW Industrial Noise Policy*, or as otherwise approved by EPA.

TRANSPORT

Monitoring of Product Transport

11. The Applicant **must** keep accurate records of the:
 - (a) **tonnage** of bricks transported from the site (monthly and annually);
 - (b) amount of raw material imported to the site (monthly and annually); and
 - (c) **tonnage of each type of raw materials imported to the site (monthly and annually)**; and provide the Secretary with a summary of this information upon request.

Parking

12. The Applicant **must** provide sufficient parking on-site for all development-related traffic, in accordance with Camden Council's parking codes, to the satisfaction of the Secretary.

Operating Conditions

13. The Applicant **must** ensure that:
 - (a) all development-related heavy vehicles enter and exit the site in a forward direction;
 - (b) all laden vehicles entering or exiting the site have their loads covered (with the exception of vehicles carrying bricks);
 - (c) all laden vehicles that have accessed the extraction and/or stockpile areas are cleaned of sand and other material that may fall on the road, before leaving the site;
 - (d) all heavy vehicles exiting the site travel east of the site along Greendale Road to The Northern Road and/or Bringelly Road;
 - (e) the dispatch of laden trucks is avoided during the peak drop-off and pick-up times at the Bringelly Public School to the greatest extent practicable, particularly prior to the upgrade of the Greendale Road/Bringelly Road intersection by RMS; and
 - (f) no trucks queue at the entrance to the site before 6am.

Access Road Intersection Construction

14. Within 12 months of commencing development under this consent, unless otherwise agreed with the Secretary, the Applicant must design and construct the new site access road intersection with Greendale Road in accordance with applicable AUSTRROADS standards, to the satisfaction of Camden Council. The Applicant must notify the Secretary in writing within 30 days of obtaining Council approval.

Within 7 days of completing construction and the new site access road being operational, the existing site access road must be permanently closed.

Transport Management Plan

15. The Applicant **must** prepare a Transport Management Plan for the development to the satisfaction of the Secretary. This plan must:
 - (a) be prepared in consultation with RMS, Camden Council, Liverpool City Council and Bringelly Public School, and be submitted to the Secretary for approval prior to the commencement of **development** under this consent, unless the Secretary agrees otherwise;
 - (b) describe the measures that would be implemented to ensure compliance with the transport operating conditions under this consent, including specific measures to avoid **the arrival and**

- [dispatch](#) of laden trucks from the site during the peak drop-off and pick-up times at the Bringelly Public School;
- (c) include a Code of Conduct for heavy vehicle drivers that addresses:
- travelling speeds;
 - [procedures to minimise noise including a regular Truck Noise Auditing Program](#);
 - [procedures to minimise diesel exhaust emissions](#);
 - instructions to avoid grouping or convoying of trucks;
 - procedures to ensure that drivers adhere to the designated haulage routes and the haulage hours permitted under this consent;
 - instructions to drivers not to overtake each other on the haulage route, as far as practicable, and to maintain appropriate distances between vehicles; and
 - instruction to drivers to be properly safety conscious and to strictly obey all traffic regulations, particularly in relation to school zones along Greendale Road; and
- (d) describe the measures that would be put in place to ensure compliance with the drivers' Code of Conduct and include a program to monitor the effectiveness of the implementation of these measures.

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

SOIL AND WATER

Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the development, including in respect of the extraction and/or interception of groundwater.

Water Supply

16. The Applicant [must](#) ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations under the consent to match its available water supply to the satisfaction of the Secretary.

Water Discharges

17. The Applicant [must](#) comply with the discharge limits in any EPL or with Section 120 of the POEO Act.

Water Management Plan

18. The Applicant [must](#) prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared by suitably qualified person/s approved by the Secretary;
 - (b) be prepared in consultation with the EPA and [DPI Water](#);
 - (c) be submitted to the Secretary for approval [prior to the commencement of development under this consent](#), unless the Secretary agrees otherwise;
 - (d) include a Site Water Balance that:
 - includes details of:
 - quantity of water required to support operations;
 - sources and security of water supply;
 - water use and management on site;
 - reporting procedures; and
 - measures to be implemented to minimise potable water use on site;
 - (e) include a Surface Water Management Plan, that includes:
 - baseline data on surface water flows and quality in the watercourses that could be affected by the development;
 - a description of the surface water management system on site, including:
 - clean water diversions;
 - erosion and sediment controls;
 - the dirty water management system; and
 - water storages (addressing maximum harvestable rights if applicable);
 - performance criteria, including trigger levels for investigating any potentially adverse surface water quality impacts;
 - a program to monitor and report on:
 - any surface water discharges;

- the effectiveness of the water management system; and
 - surface water flows and quality in local watercourses;
 - a plan to respond to any exceedances of the performance criteria.
- (f) a Groundwater Management Plan, which includes:
- baseline data on groundwater levels, yield and quality in surrounding aquifers;
 - groundwater assessment and performance criteria, including trigger levels for investigating potentially adverse groundwater impacts;
 - a program to monitor:
 - groundwater inflows to the quarry pit; and
 - impacts of the development on surrounding aquifers;
 - an analysis of the monitoring results to determine long-term water levels within the quarry void; and
 - a plan to respond to any exceedances of the performance criteria.

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

BIODIVERSITY

Biodiversity Offset Strategy

19. The Applicant **must** implement the Biodiversity Offset Strategy described in the EIS, as summarised in Table 7 and shown conceptually in Appendix 4, to the satisfaction of the Secretary.

Table 7: Summary of the Biodiversity Offsets

Area	Offset Criteria	Size (Ha)
On-site offset	Existing vegetation to be enhanced to establish an area of native woodland comprising species associated with Cumberland Plain Woodland.	1.93

Security of Offsets

20. Within 2 years of **notifying the Department of commencement of development (see condition 8 of Schedule 2)**, unless otherwise agreed with the Secretary, the Applicant **must** make suitable arrangements to provide appropriate long-term security for the offset area, to the satisfaction of the Secretary.

Note: Mechanisms to provide appropriate long term security to the land within the Biodiversity Offset Strategy include a Biobanking Agreement, Voluntary Conservation Agreement or an alternative mechanism that provides for a similar conservation outcome. Any mechanism must remain in force in perpetuity.

Biodiversity Management Plan

21. The Applicant **must** prepare a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the OEH and Camden Council;
 - (b) be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;
 - (c) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;
 - (d) describe the short, medium, and long term measures that would be implemented to:
 - manage the remnant vegetation and habitat on the site and in the offset area and;
 - implement the biodiversity offset strategy, including detailed performance and completion criteria;
 - (e) include performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);
 - (f) include a description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
 - maximising the salvage of resources within the approved disturbance area - including vegetative, soil and cultural heritage resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;

- minimising the impacts on fauna on site, including pre-clearance surveys and minimising the potential exposure to tailings;
 - controlling weeds and feral pests;
 - controlling erosion;
 - controlling access; and
 - bushfire management;
- (g) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
- (h) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

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

Conservation Bond

22. Within 6 months of the approval of the Biodiversity Management Plan, the Applicant **must** lodge a conservation bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.

The sum of the bond **must** be determined by:

- a. calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and
- b. employing a suitably qualified quantity surveyor to verify the calculated costs,
- c. to the satisfaction of the Secretary.

The calculation of the conservation bond must be submitted to the Department for approval at least 1 month prior to lodgement of the final bond.

If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.

If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works.

Notes:

- *Alternative funding arrangements for long term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate (or any other mechanism agreed with OEH) can be used to reduce the liability of the conservation bond.*
- *The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy or the completion of major milestones within the approved plan.*

REHABILITATION

Rehabilitation Objectives

23. The Applicant **must** rehabilitate the site to the satisfaction of the Secretary. Rehabilitation must:
- a. comply with the objectives in Table 8; and
 - b. be generally consistent with the proposed rehabilitation strategy in the EIS, and the final land form shown conceptually in Appendix 4 (unless modified by the Final Land Use Options Plan, prepared in accordance with condition 25 of this consent).

Table 8: Rehabilitation Objectives

Feature	Objective
Site (as a whole)	<ul style="list-style-type: none"> • Safe, stable and non-polluting • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native species and habitat

Surface infrastructure	<ul style="list-style-type: none"> To be decommissioned and removed (unless the Secretary agrees otherwise)
Final void	<ul style="list-style-type: none"> Minimise the size, depth and slope of the batters of the final void Minimise the drainage catchment of the final void
Quarry pit floor	<ul style="list-style-type: none"> Landscaped and revegetated using native flora species, above the anticipated final void water level
Community	<ul style="list-style-type: none"> Ensure public safety

Progressive Rehabilitation

24. The Applicant **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 stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.

Final Land Use Options Plan

25. The Applicant **must** prepare a Final Land Use Options Plan for the site to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with DRE and Camden Council;
 - be submitted to the Secretary for approval within 2 years of the date of [notifying the Department of commencement of development \(see condition 8 of Schedule 2\)](#), unless the Secretary agrees otherwise;
 - provide details of the conceptual final landform and associated final land uses for the site;
 - ensure that the conceptual final land form is compatible with surrounding land uses, and is consistent with the rehabilitation objectives in Table 8 and the objectives of the Growth Centres SEPP for the South West Growth Centre;
 - inform the Rehabilitation Management Plan (prepared in accordance with condition 26 of this consent); and
 - be reviewed every 7 years to account for applicable land use priorities, and if necessary updated.

Rehabilitation Management Plan

26. The Applicant **must** prepare a Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with OEH, DRE, [DPI Water](#) and Camden Council;
 - be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;
 - provide details of the conceptual final landform and associated land uses for the site (which must be consistent with the Final Land Use Options Plan under condition 25 of this consent);
 - describe the short, medium and long term measures that would be implemented to:
 - manage remnant vegetation and habitat on site; and
 - ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this consent;
 - include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggers for any necessary remedial action;
 - include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and
 - include details of who would be responsible for monitoring, reviewing, and implementing the plan.

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

Note: The Rehabilitation Management Plan must be reviewed, and if necessary updated, following any update of the Final Land Use Options Plan.

HERITAGE

Heritage Management Plan

27. The Applicant **must** prepare a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:
- a. be prepared in consultation with OEH;
 - (a) be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;
 - b. describe the measures that would be implemented to:
 - manage identified heritage objects, previously unidentified heritage objects or the discovery of any human remains on site;
 - ensure ongoing consultation with Aboriginal stakeholders in the conservation and management of any Aboriginal cultural heritage values on site; and
 - protect sites identified adjacent to the development.

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

VISUAL

28. The Applicant **must** establish a vegetation screen on both noise bunds, as soon as practicable after construction of the bunds, to minimise visibility of site infrastructure from outside the development area. Following establishment, the Applicant **must** maintain the vegetation screen, to the satisfaction of the Secretary.
29. The Applicant **must**:
- a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development; and
 - b) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting*, or its latest version.

BUSHFIRE MANAGEMENT

30. The Applicant **must**:
- a) ensure that the development is suitably equipped to respond to any fires on site; and
 - b) assist the Rural Fire Service, emergency services and National Parks and Wildlife Service as much as practicable if there is a fire in the surrounding area.

WASTE

31. Prior to importing onto the site any material that may be classified as a waste under the EPA *Waste Classification Guidelines 2009* (or its latest version), the Applicant **must** obtain a 'resource recovery exemption' under the POEO Act and provide evidence of this exemption to the Department.

Note: This condition does not apply to routine deliveries to the site.

32. The Applicant **must**:
- a) manage on-site sewage treatment and disposal in accordance with the requirements of its EPL, and to the satisfaction of the EPA and Camden Council; and
 - b) pump all sewage generated and stored on-site to a sewage treatment facility, unless otherwise agreed with the Secretary.
33. The Applicant **must**:
- a) minimise the waste generated by the development;
 - b) ensure that the waste generated by the development is appropriately stored, handled, and disposed of; and
 - c) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. As soon as practicable after obtaining monitoring results showing an exceedance of any relevant criteria in schedule 3, the Applicant **must** notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria.

INDEPENDENT REVIEW

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

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

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the development is complying with the relevant criteria in schedule 3;
 - if the development is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and
- (b) give the Secretary and landowner a copy of the independent review.

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

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

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

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

Adaptive Management

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

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

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

Management Plan Requirements

3. The Applicant must ensure that the Management Plans required under this consent are prepared in accordance with any relevant guidelines, and include:
 - (a) detailed baseline data;
 - (b) a description of:
 - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - any relevant limits or performance measures/criteria; and
 - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;
 - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
 - (d) a program to monitor and report on the:

- impacts and environmental performance of the development; and
 - effectiveness of any management measures (see (c) above);
- (e) a contingency plan to manage any unpredicted impacts and their consequences;
- (f) a program to investigate and implement ways to improve the environmental performance of the development over time;
- (g) a protocol for managing and reporting any:
- incidents;
 - complaints;
 - non-compliances with statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
- (h) a protocol for periodic review of the plan.

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

Annual Review

4. By the end of September each year, the Applicant **must submit a report to the Department reviewing** the environmental performance of the development to the satisfaction of the Secretary. This review must:
- (a) describe the development (including rehabilitation) that was carried out in the previous **financial** year, and the development that is proposed to be carried out over the current **financial** year;
- (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous **financial** year, which includes a comparison of these results against:
- the relevant statutory requirements, limits or performance measures/criteria;
 - the monitoring results of previous years; and
 - the relevant predictions in the **documents in condition 2(a) 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 development;
- (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
- (f) describe what measures will be implemented over the current **financial** year to improve the environmental performance of the development.

Revision of Strategies, Plans and Programs

5. **Within 3 months of the submission of an:**
- (a) **Annual Review under condition 4 above;**
- (b) **incident report under condition 7 below;**
- (c) **audit report under condition 9 below; and**
- (d) **any modifications to this consent,**
- the Applicant **must review the strategies, plans and programs required under this consent, to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.**

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

Community Consultative Committee

6. The Applicant **must** establish and operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Developments* (Department of Planning, 2007, or its latest version), and be operating **prior to the commencement of development under this consent.**

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.*

- *In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Applicant, Camden Council and the local community.*

REPORTING

Incident Reporting

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

Regular Reporting

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

INDEPENDENT ENVIRONMENTAL AUDIT

9. Within a year of **commencing development under this consent**, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant **must** commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
 - (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licence (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 development, and/or any assessment, plan or program required under these approvals; **and be conducted and reported to the satisfaction of the Secretary.**

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

10. Within **12 weeks of commencing** this audit, unless the Secretary agrees otherwise, the Applicant **must** submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, including a timetable for the implementation of any measures proposed to address the recommendations in the audit report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented.

Within 7 days of commencing the audit, the Applicant must notify the Department in writing of the commencement of the audit.

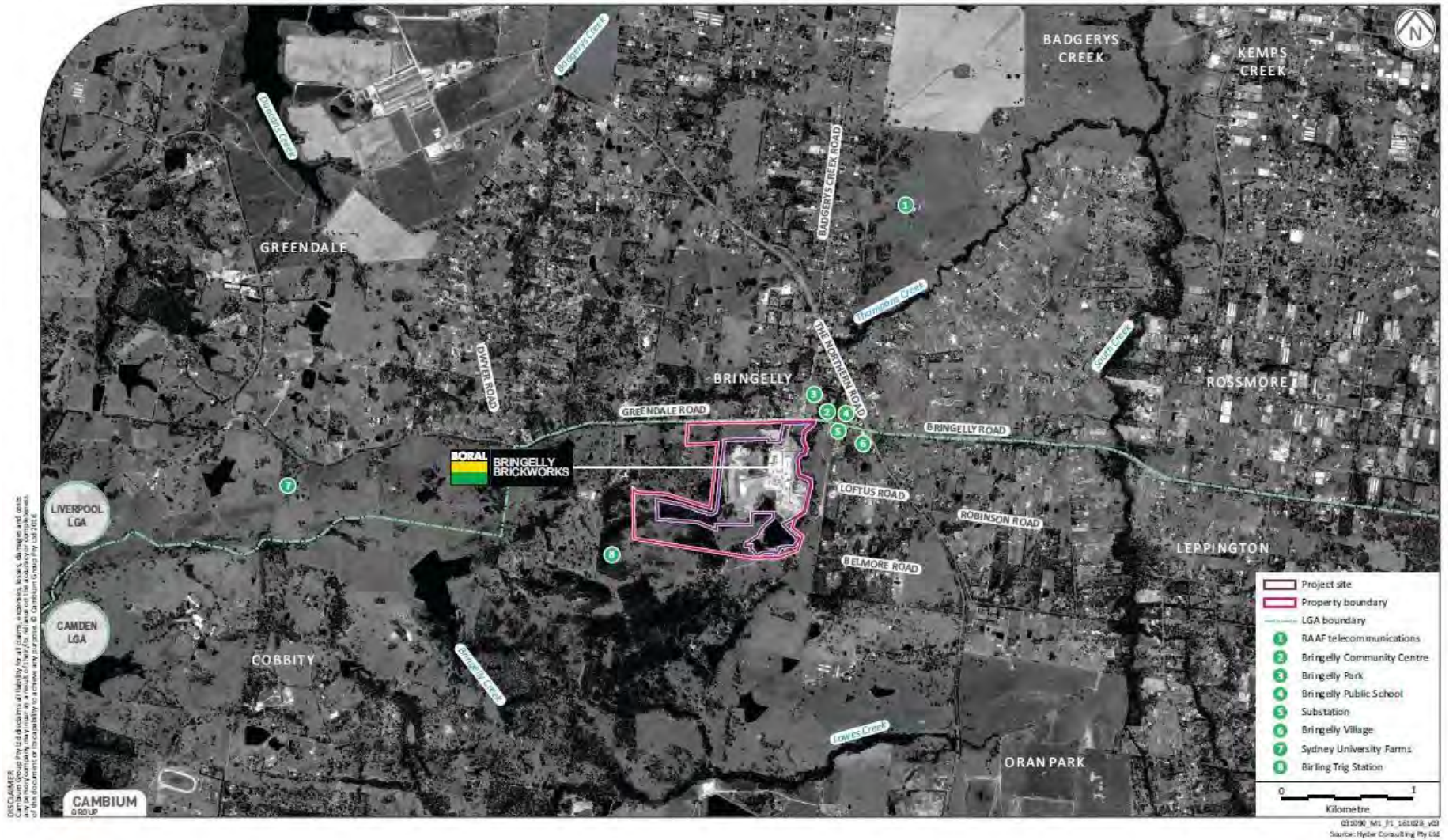
ACCESS TO INFORMATION

11. Within 6 months of **commencing development under this consent**, the Applicant **must**:
 - (a) make copies of the following publicly available on its website:
 - the documents in **condition 2(a) of Schedule 2**;
 - current statutory approvals for the development;
 - approved strategies, plans and programs required under the conditions of this consent;
 - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - a complaints register, which is to be updated monthly;
 - minutes of CCC meetings;
 - the annual reviews of the development (for the last 5 years);
 - any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;
 - any other matter required by the Secretary; and

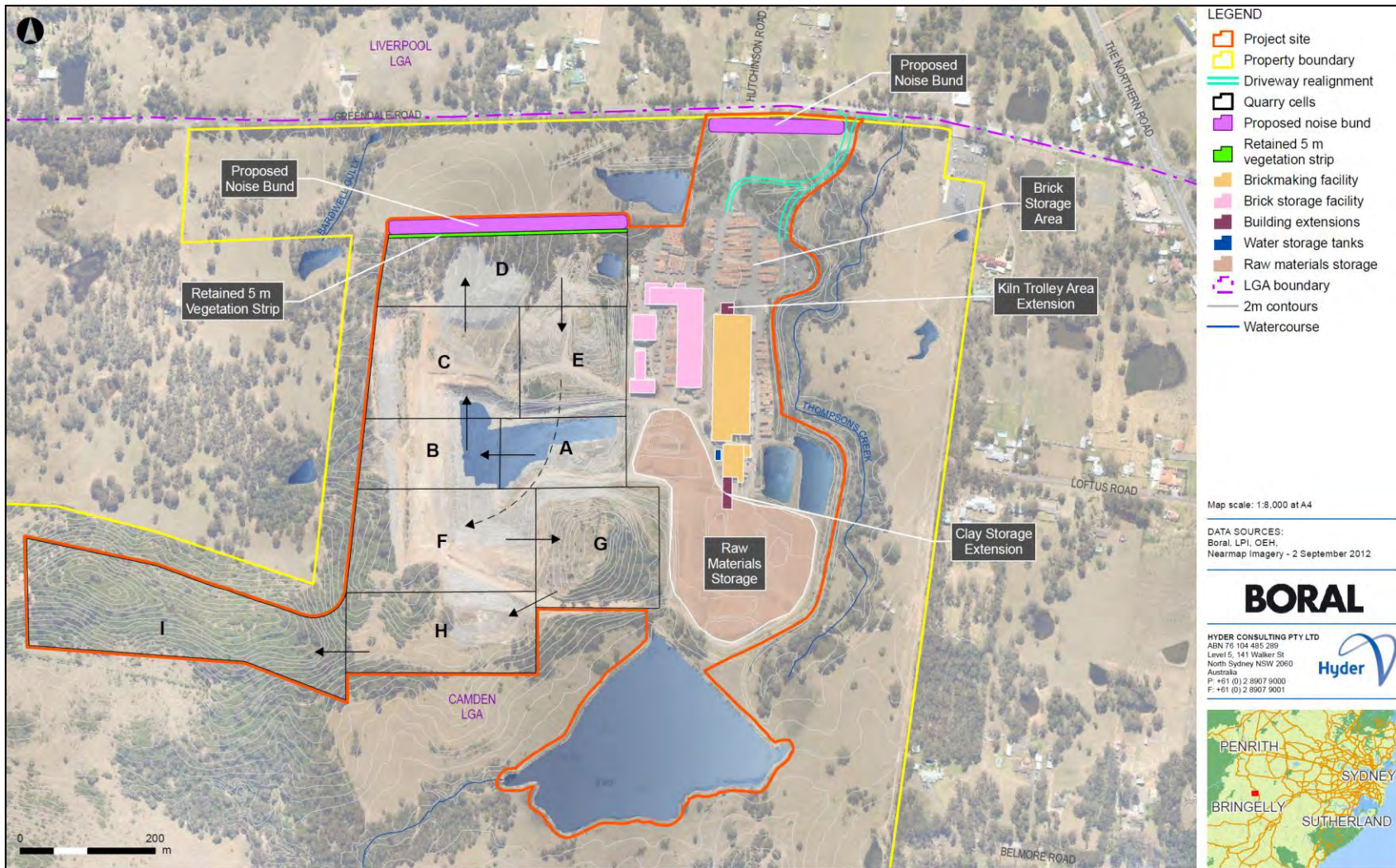
(b) keep this information up-to-date,
to the satisfaction of the Secretary.

APPENDIX 1 DEVELOPMENT AREA

BRINGELLY BRICKWORKS AND QUARRY EXPANSION - MODIFICATION 1



APPENDIX 2 DEVELOPMENT LAYOUT

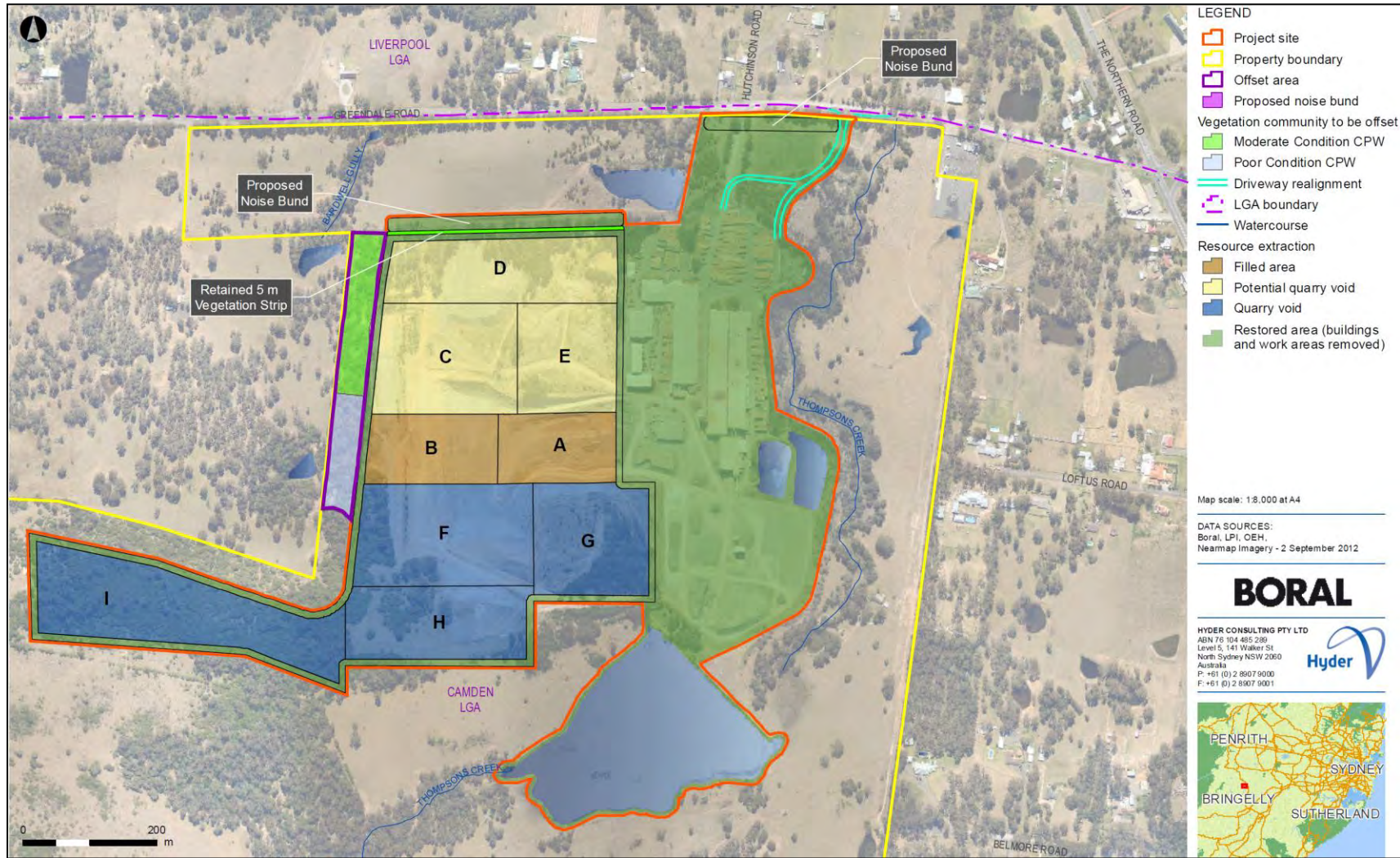


**APPENDIX 3
RECEIVER LOCATIONS**



Receiver number	Receiver address
1	55 Loftus Road
2	54 Loftus Road
3	20 Greendale Road
4	9 Greendale Road
5	5 Greendale Road (Bringelly Community Centre)
6	46 Loftus Road
7	36 Loftus Road
8	47 Loftus Road
9	37 Loftus Road
10	27 Loftus Road
11	26 Loftus Road
12	15 Loftus Road
13	5 Loftus Road
14	23 Greendale Road
15	27 Greendale Road
16	29 Greendale Road
17	25 Greendale Road
18	31 Greendale Road
19	35 Greendale Road
20	170 Tyson Road
21	196 Greendale Road
22	46 Belmore Road
23	55 Belmore Road
24	63 Belmore Road
25	67 Belmore Road
26	73 Belmore Road
27	83-85 Belmore Road
28	76 Belmore Road
29	86 Belmore Road
30	87 Belmore Road
31	93 Belmore Road
32	95-97 Belmore Road
33	107 Belmore Road
34	96 Belmore Road
35	108 Belmore Road
36	1037 Northern Road
37	10 Greendale Road
38	Bringelly Public School

APPENDIX 4 CONCEPTUAL FINAL LANDFORM AND BIODIVERSITY OFFSET STRATEGY



APPENDIX 5 NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

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

Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions **must** be that recorded by the meteorological station on or in the vicinity of the site.

Compliance Monitoring

3. Unless directed otherwise by the Secretary, quarterly attended monitoring is to be used to evaluate compliance with the relevant conditions of consent.

Note: The Secretary may direct that the frequency of attended monitoring increase or decrease at any time during the life of the development.

4. Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
 - (a) monitoring locations for the collection of representative noise data;
 - (b) meteorological conditions during which collection of noise data is not appropriate;
 - (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
 - (d) modifications to noise data collected including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.

Muller Acoustic Consulting Pty Ltd

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Noise Monitoring Assessment

PGH Bringelly Brickworks
Bringelly, NSW
Quarter 2 Ending June 2022

Document Information

Noise Monitoring Assessment

PGH Bringelly Brickworks

Bringelly, NSW

Quarter 2 Ending June 2022

Prepared for: PGH Bricks & Pavers Pty Ltd

Greendale Road

Bringelly NSW 2256

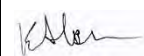

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DOCUMENT ID	DATE	PREPARED	SIGNED	REVIEWED	SIGNED
MAC190946-02RP6	30 May 2022	Kristian Allen		Rod Linnett	

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APPENDIX A – GLOSSARY OF TERMS

APPENDIX B – DEVELOPMENT CONSENT

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1 Introduction

Muller Acoustic Consulting Pty Ltd (MAC) has been commissioned by PGH Bricks & Pavers Pty Ltd (PGH) to complete a Noise Monitoring Assessment (NMA) for the PGH Bringelly Brickworks (the 'site') at Greendale Road, Bringelly, NSW.

This assessment has been undertaken for the quarterly period ending June 2022, and forms part of the annual noise monitoring program to address conditions outlined in the Development Consent.

The NMA has quantified potential operational and sleep disturbance noise emissions from the operation and has been conducted in accordance with the following documents:

- NSW Environment Protection Authority (EPA), Noise Policy for Industry (NPI), 2017;
- Bringelly Brickworks Noise Management Plan (NMP ref BRK-BRI-NMP Version 4 dated 12.02.19), 2019;
- Bringelly Brickworks Development Consent, 2015 (SSD_5684); and
- Australian Standard AS 1055:2018 - Acoustics - Description and measurement of environmental noise.

A glossary of terms, definitions and abbreviations used in this report is provided in **Appendix A**.

The Development Consent is provided in **Appendix B**.

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2 Noise Criteria

The Bringelly Brickworks NMP outlines the applicable noise criteria for representative residential receivers surrounding the site and are presented in Table 1. The site includes the operation of a quarry and brickmaking plant, and as the quarry operates during the daytime, there are separate criteria relating to each period.

Table 1 Noise Criteria ¹				
Activity	Receiver	Day/Evening/Shoulder ^{2,3}	Night ²	
		dB LAeq(15min)	dB LAeq(15min)	dB LA1(max) ³
Brickmaking and quarrying	R1, R2	47		
	R3, R4, R14	46		
	R15, R17	45		N/A
	All other receivers	44		
Brickmaking	All Receivers	44	43	53

Note 1: Noise criteria adopted from the Development Consent.

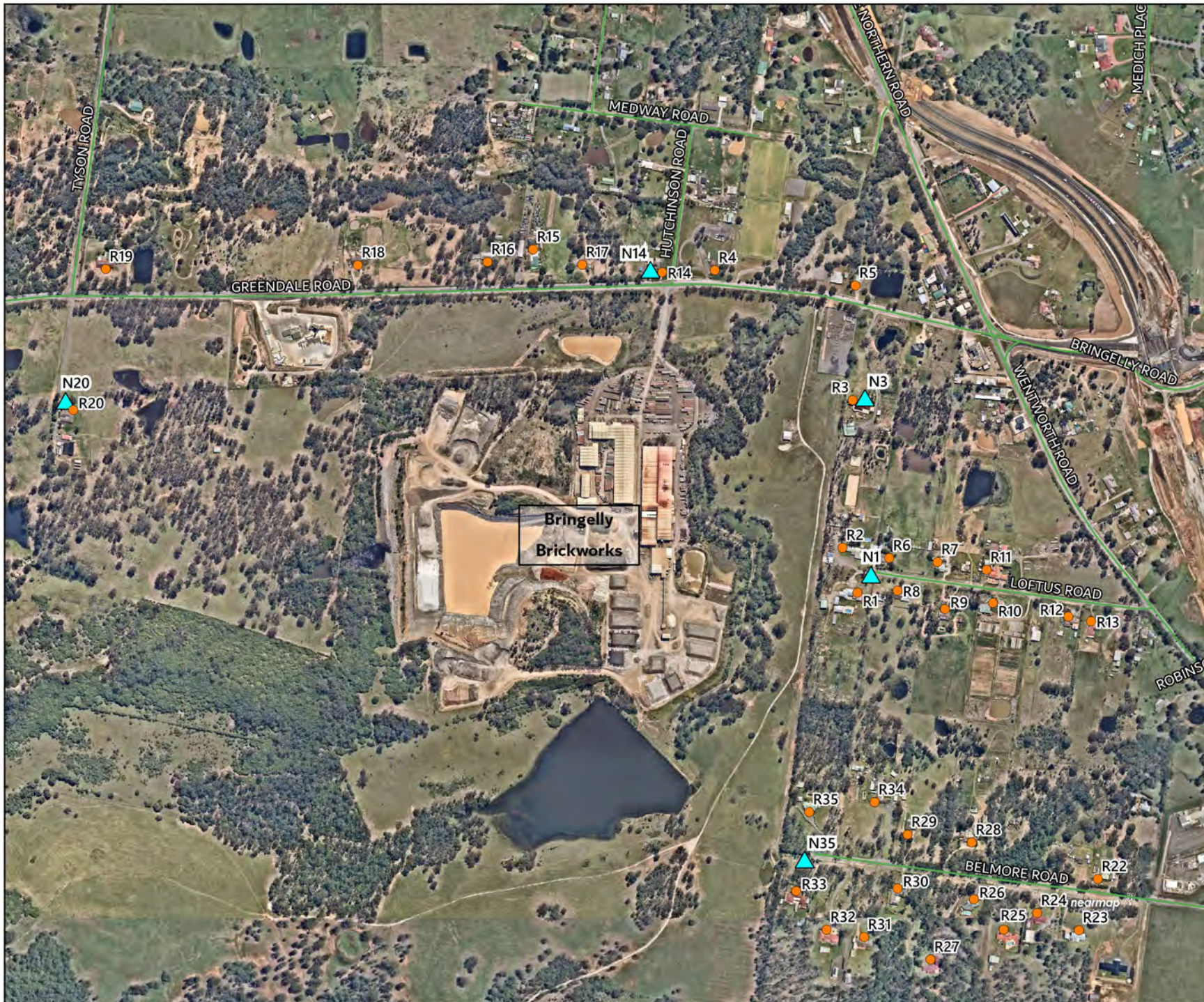
Note 2: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Note 3: Periods and parameters as expressed in the Development Consent



Figure 1 presents the identified receiver locations and representative measurement locations.

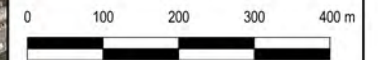
Section 4 of the Bringelly Brickworks Development Consent, 2015 (SSD_5684) outlines requirements for Noise Bunds adjacent to the northern boundary of the extraction area and adjacent to Greendale Road. It is noted that the proposed new access road and associated noise bund adjacent to Greendale Road are not in place at the time of the monitoring. Further details on review of noise mitigation measures for the site are contained in a historic report (MAC190946LR1, 29 September 2019).

FIGURE 1
 SITE LAYOUT
 MAC190946-02
 PGH Bringelly Brickworks



KEY

-  Monitoring Locations
-  Receivers



3 Assessment Methodology

The attended noise measurements were conducted in general accordance with the procedures described in Australian Standard AS 1055:2018, "Acoustics - Description and Measurement of Environmental Noise". Measurements were conducted using a Svantek Type 1, 971 noise analyser. The acoustic instrumentation used carries current NATA calibration and complies with AS IEC 61672.1-2019- Electroacoustics - Sound level meters - Specifications. Calibration of all instrumentation was checked prior to and following measurements. Drift in calibration did not exceed ± 0.5 dBA.

Noise measurements were of 15-minutes in duration and where possible, throughout each survey the operator quantified the contribution of each significant noise source. Measurements were conducted at five locations (N1, N3, N14, N20, N35) on Wednesday 18 May 2022 during the day, evening, and night periods to satisfy the requirements of the NMP.

Extraneous noise sources were excluded from the analysis to determine the $L_{Aeq}(15min)$ quarry noise contribution for comparison against the relevant criteria. In the event of site attributed noise being above criteria, prevailing meteorological conditions for the monitoring period are analysed in accordance with Fact Sheet D of the NPI to determine the stability category present at the time of each attended measurement.

Where the site is inaudible, the contribution is estimated to be at least 10dBA below the ambient noise level.

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4 Results

4.1 Assessment Results - Location N1

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N1 for the NMA are presented in **Table 2**.

Table 2 Operator-Attended Noise Survey Results – Location N1						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA1	LAeq	LA90		
18/05/2022	14:10 (Day)	61	51	41	WD: W WS: 1.0m/s Rain: Nil	Traffic 38-65
						Birds 35-62
						Aircraft 35-63
						PGH machinery <35 (just audible 25% measurement)
PGH reverse alarms <35 (multiple 5 seconds)						
PGH Site LAeq(15min) Contribution						<35
18/05/2022	20:30 (Evening)	57	45	38	WD: SW WS: 0.5m/s Rain: Nil	Traffic 33-66
						Insects 33-38
						Dogs barking 35-51
						PGH site hum <33-38
PGH reverse alarms <35 (multiple 5 seconds)						
PGH compressor 35-45 (2-3 minutes)						
PGH Site LAeq(15min) Contribution						36
18/05/2022	22:44 (Night)	45	42	40	WD: SW WS: 0.1m/s Rain: Nil	Traffic 35-39
						Insect 38-46
						MAC operator 54
						PGH site hum 35-41
PGH reverse alarms <35 (multiple 5 seconds)						
PGH impacts 41-44 (Infrequent 1-2 seconds)						
PGH Site LAeq(15min) Contribution						38
PGH Site LA1(max) Contribution						<53

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

4.2 Assessment Results - Location N3

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N3 for the NMA are presented in Table 3.

Table 3 Operator-Attended Noise Survey Results – Location N3

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA1	LAeq	LA90		
18/05/2022	14:29 (Day)	75	64	47	WD: SW	Traffic 45-75
					WS: 1.5m/s	Birds 42-63
					Rain: Nil	Aircraft 42-56
						Wind 42-50
						PGH inaudible
PGH Site LAeq(15min) Contribution						<40
18/05/2022	20:52 (Evening)	63	52	41	WD: SW	Traffic 37-76
					WS: 0.5m/s	Substation hum 40-43
					Rain: Nil	Birds 37-63
						Insects 37-46
						Aircraft 40-54
PGH site hum 37-40						
PGH compressor 37-50 (4-5 minutes)						
PGH machinery <35 (just audible 25% measurement)						
PGH Site LAeq(15min) Contribution						<40
18/05/2022	23:04 (Night)	61	49	43	WD: SW	Traffic 40-65
					WS: <0.5m/s	Substation hum 40-43
					Rain: Nil	Insects 42-51
						PGH site hum <40
						PGH impacts 40-46 (Infrequent 1-2 seconds)
PGH Site LAeq(15min) Contribution						<40
PGH Site LA1(max) Contribution						<53

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

4.3 Assessment Results - Location N14

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N14 for the NMA are presented in **Table 4**.

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA1	LAeq	LA90		
18/05/2022	15:07 (Day)	80	66	46	WD: SW WS: 1.5m/s Rain: Nil	Traffic 39-86
						Birds 36-67
						Wind 36-48
						Dogs barking 36-52
						PGH vehicle enter/exit 40-64 (5 movements 10-20 seconds each)
PGH Site LAeq(15min) Contribution						<40
18/05/2022	21:44 (Evening)	73	58	35	WD: SW WS: 0.5m/s Rain: Nil	Traffic 31-80
						Insects 34-40
						Residential noise 35-48
						PGH site hum <35
						PGH vehicle enter/exit 35-46 (2 movements, 10-20 seconds each)
PGH Site LAeq(15min) Contribution						<35
18/05/2022	23:46 (Night)	57	46	35	WD: SW WS: <0.5m/s Rain: Nil	Local traffic 30-73
						Dogs barking 30-43
						Insects 33-40
						Birds 30-56
						PGH site hum <35
PGH Site LAeq(15min) Contribution						<35
PGH Site LA1(max) Contribution						<53

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

4.4 Assessment Results - Location N20

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N20 for the NMA are presented in **Table 5**.

Table 5 Operator-Attended Noise Survey Results – Location N20						
Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA1	LAeq	LA90		
18/05/2022	14:28 (Day)	75	62	43	WD: SW	Traffic 41-80
					WS: 1.5m/s	Birds 38-48
					Rain: Nil	Wind 38-51
						PGH inaudible
PGH Site LAeq(15min) Contribution						<40
18/05/2022	21:10 (Evening)	74	60	37	WD: SW	Traffic 30-80
					WS: 1.0m/s	Insects 33-40
					Rain: Nil	Wind 30-38
						PGH inaudible
PGH Site LAeq(15min) Contribution						<35
18/05/2022	23:25 (Night)	68	53	36	WD: SW	Traffic 30-75
					WS: 0.5m/s	Insects 32-43
					Rain: Nil	PGH inaudible
PGH Site LAeq(15min) Contribution						<35
PGH Site LA1(max) Contribution						<53

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

4.5 Assessment Results - Location N35

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N35 for the NMA are presented in **Table 6**.

Table 6 Operator-Attended Noise Survey Results – Location N35

Date	Time (hrs)	Descriptor (dBA re 20 µPa)			Meteorology	Description and SPL, dBA
		LA1	LAeq	LA90		
18/05/2022	15:29 (Day)	54	46	38	WD: SW	Traffic 32-36
					WS: 1.0m/s	Birds 30-66
					Rain: Nil	Residential noise 32-52
						Aircraft 30-54
PGH inaudible						
PGH Site LAeq(15min) Contribution						<35
18/05/2022	20:07 (Evening)	45	40	37	WD: SW	Traffic 30-35
					WS: 1.0m/s	Dogs barking 35-44
					Rain: Nil	Insects 32-46
						Wind 30-38
MAC operator 55						
PGH reverse alarms <35 (multiple 5 seconds)						
PGH Site LAeq(15min) Contribution						<35
18/05/2022	22:21 (Night)	47	43	39	WD: SW	Traffic 33-44
					WS: <0.5m/s	Insects 36-45
					Rain: Nil	Dogs barking 33-46
						PGH site hum <33
PGH Site LAeq(15min) Contribution						<35
PGH Site LA1(max) Contribution						<53

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

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5 Discussion

Monitoring on Wednesday 18 May 2022 identified site noise was audible during all periods at monitoring location N1 and N14, and during the evening and night periods at monitoring locations N3 and N35. Site was not audible during any period at monitoring location N20. Site attributable noise contributions were estimated to satisfy the relevant noise criteria at all locations during all assessment periods.

Audible site noise sources included the machinery movements and reverse alarm, compressor noise, trucks entering/leaving the site on the access road, general impact noises and site hum. Extraneous noise sources measured included wind in trees, insects, birds, traffic, aircraft noise, dogs barking, substation hum, MAC operator noise and residential noise.

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6 Conclusion

Muller Acoustic Consulting Pty Ltd (MAC) has completed a Noise Monitoring Assessment (NMA) PGH Bricks & Pavers Pty Ltd (PGH) at the PGH Bringelly Brickworks (the 'site') at Greendale Road Bringelly, NSW. The assessment was completed to assess the site's compliance with the relevant noise criteria during Quarter 2, ending June 2022.

Attended noise monitoring was undertaken on Wednesday 18 May 2022 at five representative receiver locations. The assessment has identified that noise emissions generated by Bringelly Brickworks were audible at four (4) locations, however quarry noise emissions were below the relevant noise criteria throughout the survey period, satisfying the relevant consent conditions.

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Appendix A – Glossary of Terms

A number of technical terms have been used in this report and are explained in **Table A1**.

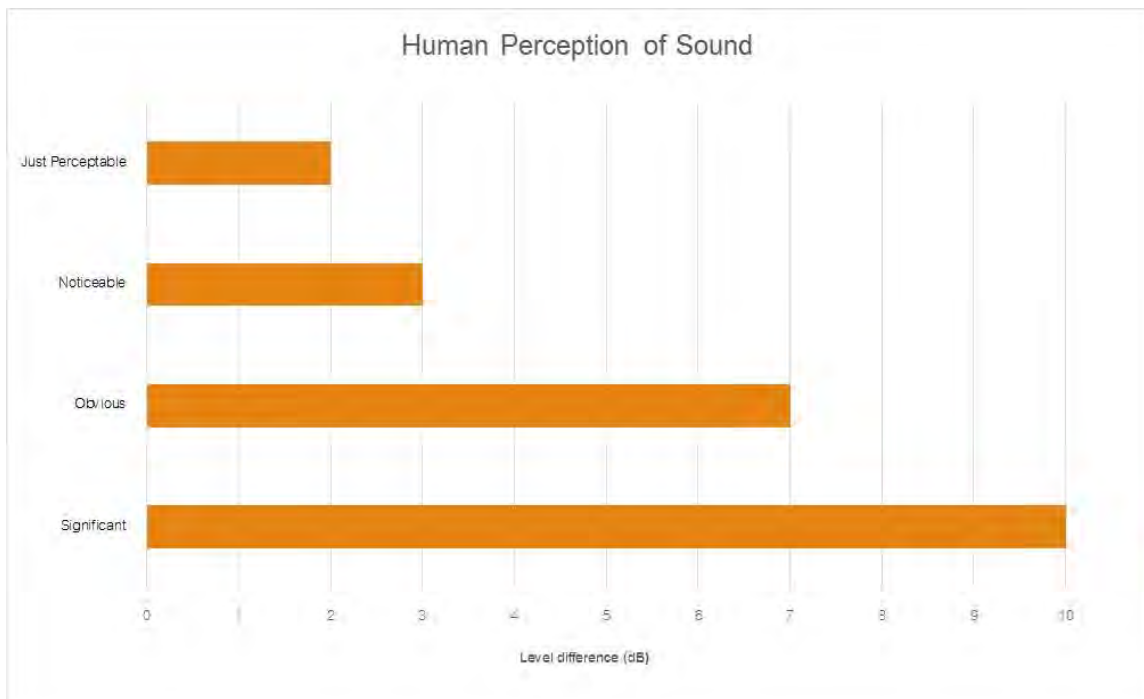
Table A1 Glossary of Acoustical Terms	
Term	Description
1/3 Octave	Single octave bands divided into three parts
Octave	A division of the frequency range into bands, the upper frequency limit of each band being twice the lower frequency limit.
ABL	Assessment Background Level (ABL) is defined in the NPI as a single figure background level for each assessment period (day, evening and night). It is the tenth percentile of the measured L90 statistical noise levels.
Ambient Noise	The total noise associated with a given environment. Typically, a composite of sounds from all sources located both near and far where no particular sound is dominant.
A Weighting	A standard weighting of the audible frequencies designed to reflect the response of the human ear to sound.
Background Noise	The underlying level of noise present in the ambient noise, excluding the noise source under investigation, when extraneous noise is removed. This is usually represented by the LA90 descriptor
dBA	Noise is measured in units called decibels (dB). There are several scales for describing noise, the most common being the 'A-weighted' scale. This attempts to closely approximate the frequency response of the human ear.
dB(Z), dB(L)	Decibels Z-weighted or decibels Linear (unweighted).
Extraneous Noise	Sound resulting from activities that are not typical of the area.
Hertz (Hz)	The measure of frequency of sound wave oscillations per second - 1 oscillation per second equals 1 hertz.
LA10	A sound level which is exceeded 10% of the time.
LA90	Commonly referred to as the background noise, this is the level exceeded 90% of the time.
LAeq	Represents the average noise energy or equivalent sound pressure level over a given period.
LAm _{ax}	The maximum sound pressure level received at the microphone during a measuring interval.
Masking	The phenomenon of one sound interfering with the perception of another sound. For example, the interference of traffic noise with use of a public telephone on a busy street.
RBL	The Rating Background Level (RBL) as defined in the NPI, is an overall single figure representing the background level for each assessment period over the whole monitoring period. The RBL, as defined is the median of ABL values over the whole monitoring period.
Sound power level (L _w or SWL)	This is a measure of the total power radiated by a source in the form of sound and is given by $10 \cdot \log_{10} (W/W_0)$. Where W is the sound power in watts to the reference level of 10^{-12} watts.
Sound pressure level (L _p or SPL)	the level of sound pressure; as measured at a distance by a standard sound level meter. This differs from L _w in that it is the sound level at a receiver position as opposed to the sound 'intensity' of the source.

Table A2 provides a list of common noise sources and their typical sound level.

Table A2 Common Noise Sources and Their Typical Sound Pressure Levels (SPL), dBA

Source	Typical Sound Pressure Level
Threshold of pain	140
Jet engine	130
Hydraulic hammer	120
Chainsaw	110
Industrial workshop	100
Lawn-mower (operator position)	90
Heavy traffic (footpath)	80
Elevated speech	70
Typical conversation	60
Ambient suburban environment	40
Ambient rural environment	30
Bedroom (night with windows closed)	20
Threshold of hearing	0

Figure A1 – Human Perception of Sound



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Appendix B – Development Consent

Development Consent

Section 89E of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning, I approve the development application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

These conditions are required to:

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

David Kitto
Executive Director
Resource Assessments and Business Systems

Sydney

2015

SCHEDULE 1

Application Number:

SSD_5684

Applicant:

Boral Bricks Pty Ltd

Consent Authority:

Minister for Planning

Land:

[Lot 100 in DP 1203966](#)

Development:

Bringelly Brickworks Extension Project

Modification 1 (October 2016 shown in [blue](#) text)

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DEFINITIONS

AHD	Australian Height Datum
Annual Review	The review required by condition 4 of schedule 5
Applicant	Boral Bricks Pty Ltd, or any other person or persons who rely on this consent to carry out the development that is subject to this consent
BCA	Building Code of Australia
Biodiversity offset strategy	The conservation and enhancement strategy described in the EIS, and shown conceptually in Appendix 4
Brick making operations	Includes the receipt, handling, processing, storage and transportation of raw materials on site, brick making on site and transportation of finished bricks on site
CCC	Community Consultative Committee
Conditions of consent	Conditions contained in schedules 1 to 5 inclusive
Construction	The demolition of buildings or works, carrying out of works and erection of buildings covered by this consent
CPI	Australian Bureau of Statistics Consumer Price Index
Date of commencement	The date notified to the Department by the Applicant under condition 8 of Schedule 2
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Environment
Development	The development described in the documents of condition 2(a) of Schedule 2
Development area	All land to which the development application applies, as listed under "Land" in schedule 1 and shown in Appendix 1
DPI Water	Department of Primary Industries - Water
DRE	Division of Resources and Energy, within the NSW Department of Industry
EEC	Endangered Ecological Community, as defined under the <i>Threatened Species Conservation Act 1995</i>
EIS	Environmental Impact Statement titled <i>Bringelly Brickworks and Quarry Expansion</i> (2 volumes), dated September 2013, as modified by the Response to Submissions titled, <i>Bringelly Brickworks and Quarry Expansion, Response to Submissions</i> dated February 2014 and the letter entitled <i>Bringelly Brickworks – Biodiversity Offsets</i> , dated 2 June 2014
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence under the POEO Act
Evening	The period from 6pm to 10pm
Extension area	The area outside of the existing quarry footprint (i.e. cells D, E, F, G, H and I, as shown conceptually in Appendix 2)
Feasible	Feasible relates to engineering considerations and what is practical to build
GDE	Groundwater Dependent Ecosystem
GPS	Global Positioning System
Growth Centres SEPP	<i>State Environmental Planning Policy (Sydney Regional Growth Centres) 2006</i>
Ha	Hectare
Incident	A set of circumstances that: <ul style="list-style-type: none"> • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this consent
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in schedules 3 and 4 of this consent

	where it is defined to mean the whole of a lot, or contiguous lots, owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
m	Metres
Minister	Minister for Planning, or delegate
Mitigation	Activities associated with reducing the impacts of the development
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NP&W Act	<i>National Parks and Wildlife Act 1974</i>
OEH	NSW Office of Environment and Heritage
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency or the Applicant (or its subsidiary)
Quarrying operations	Includes the removal of overburden and extraction, handling, storage and transportation of extractive materials on site
Raw materials	Raw materials imported for use in brick making including clay/shale and additives (such as manganese and iron oxides)
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Rehabilitation	The restoration of land disturbed by the development to a good condition, ensuring that it is safe, stable and non-polluting and appropriately revegetated
RMS	Roads and Maritime Services
Secretary	Secretary of the Department, or nominee
SEE (Mod 1)	Statement of Environmental Effects titled 'Section 96(1A) Modification Supporting Information' dated August 2016 and prepared by Element Environment, including the Response to Submissions document dated September 2016
Site	The land listed under "Land" in schedule 1
Shoulder	The period between 6am to 7am on Monday to Saturday
South West Growth Centre	An area of land identified under the Growth Centres SEPP

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this consent, the Applicant **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 development.

TERMS OF CONSENT

2. The Applicant **must**:
 - (a) carry out the development generally in accordance with the EIS **and SEE (Mod 1)**; and
 - (b) the conditions of this consent.

Note: The general layout of the development is shown in Appendix 2.

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

LIMITS ON CONSENT

Quarrying and Brick Making Operations

5. The Applicant may carry out quarrying **operations** and brick making operations from the date of commencement of development under this consent until 1 March 2045.

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

Production Limits

6. The Applicant **must** not:
 - (a) extract more than 200,000 tonnes of clay/shale from the site in any calendar year;
 - (b) produce more than 263,500 tonnes of bricks at the site in any calendar year;
 - (c) carry out quarrying operations beyond 46 m AHD; and
 - (d) receive more than **321,000** tonnes of raw materials required for brick making to the site in any calendar year.

Transportation Limits

7. The Applicant **must** not:
 - (a) transport more than 263,500 tonnes of bricks from the site in a calendar year;
 - (b) receive more than 90 trucks to the site per day or more than 18 trucks per hour; and
 - (c) dispatch more than 90 trucks from the site per day or more than 18 trucks per hour.

NOTIFICATION OF COMMENCEMENT

8. **Prior to commencing development under this consent, the Applicant must notify the Department in writing of the date on which it will commence development permitted under this consent.**

SURRENDER OF EXISTING DEVELOPMENT CONSENT

9. Within 4 months of commencing development under this consent, the Applicant must surrender the development consent (DA 91/1194) for existing operations on the site in accordance with Section 104A of the EP&A Act.

Following the commencement of development under this consent, the conditions of this consent (including any notes) shall prevail to the extent of any inconsistency with the conditions of the existing development consent (DA 91/1194).

STRUCTURAL ADEQUACY

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

Notes:

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

DEMOLITION

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

PROTECTION OF PUBLIC INFRASTRUCTURE

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

Note: This condition does not apply to any damage to roads caused as a result of general road usage.

OPERATION OF PLANT AND EQUIPMENT

13. The Applicant must ensure that all plant and equipment used on site or any monitoring equipment used off site for monitoring the performance of the development is:
- (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

UPDATING AND STAGING STRATEGIES, PLANS OR PROGRAMS

14. With the approval of the Secretary, the Applicant may submit any strategies, plans or programs required by this consent on a progressive basis.

To ensure the strategies, plans or programs under the conditions of this consent are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval.

With the agreement of the Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this consent.

Notes:

- While any strategy, plan or program may be submitted on a progressive basis, the Applicant must ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times.
- If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage 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.

15. Until they are replaced by an equivalent strategy, plan or program approved under this consent, the Applicant **must** implement the existing strategies, plans or programs for the site that have been approved under DA 91/1194.

IDENTIFICATION OF APPROVED LIMITS OF EXTRACTION

16. Prior to undertaking quarrying operations in the extension area, the Applicant **must**:
 - (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction within the development area; and
 - (b) submit a survey plan of these boundaries with applicable GPS coordinates to the Secretary.
17. While quarrying operations are being carried out, the Applicant **must** ensure that these boundaries are clearly marked at all times to allow operating staff and inspecting officers to clearly identify the approved limits of extraction.

PRODUCTION DATA

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

DEVELOPER CONTRIBUTIONS

19. The Applicant **must** pay Camden Council road maintenance contributions of \$0.0811 for every tonne of material transported to and from the site, indexed to CPI. Each payment must be:
 - (a) paid to Council at the end of each calendar year; and
 - (b) based on weighbridge records of all supplementary brick making materials transported to the site and bricks and spoil transported from the site.

Note: If the parties are not able to agree on any aspect of the maintenance contributions, either party may refer the matter to the Secretary for resolution.

**SCHEDULE 3
ENVIRONMENTAL PERFORMANCE CONDITIONS**

HOURS OF OPERATION

- The Applicant **must** comply with the operating hours set out in Table 1.

Table 1: Operating Hours

Activity	Operating Hours
<ul style="list-style-type: none"> • Quarrying operations • Deliveries • Dispatch of finished bricks 	6am to 6pm, Monday to Friday 6am to 1pm, Saturday No activities on Sundays or Public Holidays
Brick making operations (except dispatch of finished bricks)	24 hours a day, 7 days a week
Construction activities	7am to 6pm, Monday to Friday 8am to 1pm, Saturday No construction to be undertaken on Sundays or Public Holidays

NOISE

Noise Criteria

- The Applicant **must** ensure that the noise generated by the development does not exceed the criteria in Table 2 at any residence on privately-owned land.

Table 2: Noise criteria dB(A)

Activity	Receiver	Day/Evening/Shoulder	Night	
		<i>L_{Aeq(15 min)}</i>	<i>L_{Aeq(15 min)}</i>	<i>L_{A1(max)}</i>
Brick making and quarrying	R1, R2	47	Not Applicable	
	R3, R4, R14	46		
	R15, R17	45		
	All other receivers	44		
Brick making	All receivers	44	43	53

Notes:

- To locate the receivers referred to in Table 2 refer to Appendix 3.
- After the first review on any EPL granted for this development under Section 78 of the POEO Act, nothing in this consent prevents the EPA from imposing stricter noise limits on the quarrying operations on site under the EPL.

Appendix 5 sets out the metrological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Applicant has a written agreement with the relevant landowner/s to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

Construction Noise

- The Applicant **must** manage noise generated during the construction of the new site access road and associated road alignment works, and the noise bund adjacent to Greendale Road, in accordance with the guidelines specified in Table 2 of the *Interim Construction Noise Guideline*.

Note: Management guidelines are applicable to receivers 3 and 4, shown in Appendix 3.

Noise Bunds

4. The Applicant must ensure that the noise bund adjacent to the northern boundary of the extraction area is constructed prior to the commencement of quarrying operations in the extension area.
- 4A. The Applicant must ensure that the noise bund adjacent to Greendale Road is constructed prior to the commencement of brick making operations.

Operating Conditions

5. The Applicant **must**:
 - (a) implement all reasonable and feasible mitigation measures to minimise construction, operational and road noise of the development;
 - (b) implement periods of respite during the construction of the new site access road and associated road alignment works, and the noise bund adjacent to Greendale Road;
 - (c) regularly assess noise monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the noise criteria in this consent;
 - (d) maintain the effectiveness of noise suppression equipment on plant and equipment on site;
 - (e) minimise the noise impacts of the development during meteorological conditions under which the noise criteria in this consent do not apply (see Appendix 5); and
 - (f) carry out regular noise monitoring to determine whether the development is complying with the relevant conditions of this consent, to the satisfaction of the Secretary.

Noise Management Plan

6. The Applicant **must** prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
 - (a) be prepared in consultation with the EPA;
 - (b) be submitted to the Secretary for approval prior to the commencement of **development** under this consent, unless the Secretary agrees otherwise;
 - (c) describe the reasonable and feasible mitigation measures that would be implemented to ensure:
 - construction noise is minimise;
 - compliance with the relevant noise criteria and operating conditions in this consent;
 - best management practice is being employed; and
 - the noise impacts of the development are minimised during meteorological conditions under which the noise criteria in this consent do not apply;
 - (d) describe the proposed noise management system on site; and
 - (e) include a quarterly (or as otherwise agreed with the Secretary) noise monitoring program that:
 - uses attended monitoring to evaluate the compliance of the development against the noise criteria in this consent;
 - evaluates and reports on the effectiveness of the noise management system and the best practice noise management measures; and
 - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

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

AIR QUALITY

Air Quality Criteria

7. The Applicant **must** implement all reasonable and feasible avoidance and mitigation measures so that particulate matter emissions generated by the development do not exceed the criteria in Tables 3 to 6 at any residence on privately-owned land.

Table 3: Long-Term Criteria for Particulate Matter

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

Table 4: Short-Term Criteria for Particulate Matter

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

Table 5: Long-Term Criteria for Deposited Dust

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

Table 6: Long and Short-Term Stack Emissions

Pollutant	Averaging period	^d Criterion
Sulphur Dioxide	10-minute	712 µg/m ³
	1-Hour	570 µg/m ³
	24-Hour	228 µg/m ³
	Annual	60 µg/m ³
Nitrogen Dioxide	1-Hour	246 µg/m ³
	Annual	62 µg/m ³
Hydrogen Chloride	1 hour	0.14 mg/m ³

Notes to Tables 3-6:

- ^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources).
- ^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own).
- ^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
- ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Secretary in consultation with EPA.

Operating Conditions

8. The Applicant **must**:
- implement all reasonable and feasible measures to minimise the stack and dust emissions of the development;
 - minimise surface disturbance and maximise progressive rehabilitation;
 - minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note (d) to Tables 3-6 above); and
 - monitor and report on compliance with the relevant air quality conditions in this consent; to the satisfaction of the Secretary.

Air Quality Management Plan

9. The Applicant **must** prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with the EPA;
 - be submitted to the Secretary for approval prior to the commencement of **development** under this consent, unless the Secretary agrees otherwise;
 - describe the measures that would be implemented to ensure:
 - compliance with the air quality criteria and operating conditions under this consent;
 - best practice management is being employed; and
 - the air quality impacts of the development are minimised during adverse meteorological conditions;
 - describe the air quality management system; and
 - include an air quality monitoring program that:
 - evaluates and reports on:
 - the effectiveness of the air quality management system; and
 - compliance with the air quality criteria and operating conditions; and
 - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.

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

METEOROLOGICAL MONITORING

10. For the life of the development, the Applicant **must** ensure that there is a suitable meteorological station operating in the vicinity of the site that:
 - (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
 - (b) is capable of continuous measurement of stability class, in accordance with the *NSW Industrial Noise Policy*, or as otherwise approved by EPA.

TRANSPORT

Monitoring of Product Transport

11. The Applicant **must** keep accurate records of the:
 - (a) **tonnage** of bricks transported from the site (monthly and annually);
 - (b) amount of raw material imported to the site (monthly and annually); and
 - (c) **tonnage of each type of raw materials imported to the site (monthly and annually)**; and provide the Secretary with a summary of this information upon request.

Parking

12. The Applicant **must** provide sufficient parking on-site for all development-related traffic, in accordance with Camden Council's parking codes, to the satisfaction of the Secretary.

Operating Conditions

13. The Applicant **must** ensure that:
 - (a) all development-related heavy vehicles enter and exit the site in a forward direction;
 - (b) all laden vehicles entering or exiting the site have their loads covered (with the exception of vehicles carrying bricks);
 - (c) all laden vehicles that have accessed the extraction and/or stockpile areas are cleaned of sand and other material that may fall on the road, before leaving the site;
 - (d) all heavy vehicles exiting the site travel east of the site along Greendale Road to The Northern Road and/or Bringelly Road;
 - (e) the dispatch of laden trucks is avoided during the peak drop-off and pick-up times at the Bringelly Public School to the greatest extent practicable, particularly prior to the upgrade of the Greendale Road/Bringelly Road intersection by RMS; and
 - (f) no trucks queue at the entrance to the site before 6am.

Access Road Intersection Construction

14. Within 12 months of commencing development under this consent, unless otherwise agreed with the Secretary, the Applicant must design and construct the new site access road intersection with Greendale Road in accordance with applicable AUSTROADS standards, to the satisfaction of Camden Council. The Applicant must notify the Secretary in writing within 30 days of obtaining Council approval.

Within 7 days of completing construction and the new site access road being operational, the existing site access road must be permanently closed.

Transport Management Plan

15. The Applicant **must** prepare a Transport Management Plan for the development to the satisfaction of the Secretary. This plan must:
 - (a) be prepared in consultation with RMS, Camden Council, Liverpool City Council and Bringelly Public School, and be submitted to the Secretary for approval prior to the commencement of **development** under this consent, unless the Secretary agrees otherwise;
 - (b) describe the measures that would be implemented to ensure compliance with the transport operating conditions under this consent, including specific measures to avoid **the arrival and**

- [dispatch](#) of laden trucks from the site during the peak drop-off and pick-up times at the Bringelly Public School;
- (c) include a Code of Conduct for heavy vehicle drivers that addresses:
- travelling speeds;
 - [procedures to minimise noise including a regular Truck Noise Auditing Program](#);
 - [procedures to minimise diesel exhaust emissions](#);
 - instructions to avoid grouping or convoying of trucks;
 - procedures to ensure that drivers adhere to the designated haulage routes and the haulage hours permitted under this consent;
 - instructions to drivers not to overtake each other on the haulage route, as far as practicable, and to maintain appropriate distances between vehicles; and
 - instruction to drivers to be properly safety conscious and to strictly obey all traffic regulations, particularly in relation to school zones along Greendale Road; and
- (d) describe the measures that would be put in place to ensure compliance with the drivers' Code of Conduct and include a program to monitor the effectiveness of the implementation of these measures.

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

SOIL AND WATER

Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the development, including in respect of the extraction and/or interception of groundwater.

Water Supply

16. The Applicant [must](#) ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations under the consent to match its available water supply to the satisfaction of the Secretary.

Water Discharges

17. The Applicant [must](#) comply with the discharge limits in any EPL or with Section 120 of the POEO Act.

Water Management Plan

18. The Applicant [must](#) prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared by suitably qualified person/s approved by the Secretary;
 - (b) be prepared in consultation with the EPA and [DPI Water](#);
 - (c) be submitted to the Secretary for approval [prior to the commencement of development under this consent](#), unless the Secretary agrees otherwise;
 - (d) include a Site Water Balance that:
 - includes details of:
 - quantity of water required to support operations;
 - sources and security of water supply;
 - water use and management on site;
 - reporting procedures; and
 - measures to be implemented to minimise potable water use on site;
 - (e) include a Surface Water Management Plan, that includes:
 - baseline data on surface water flows and quality in the watercourses that could be affected by the development;
 - a description of the surface water management system on site, including:
 - clean water diversions;
 - erosion and sediment controls;
 - the dirty water management system; and
 - water storages (addressing maximum harvestable rights if applicable);
 - performance criteria, including trigger levels for investigating any potentially adverse surface water quality impacts;
 - a program to monitor and report on:
 - any surface water discharges;

- the effectiveness of the water management system; and
 - surface water flows and quality in local watercourses;
 - a plan to respond to any exceedances of the performance criteria.
- (f) a Groundwater Management Plan, which includes:
- baseline data on groundwater levels, yield and quality in surrounding aquifers;
 - groundwater assessment and performance criteria, including trigger levels for investigating potentially adverse groundwater impacts;
 - a program to monitor:
 - groundwater inflows to the quarry pit; and
 - impacts of the development on surrounding aquifers;
 - an analysis of the monitoring results to determine long-term water levels within the quarry void; and
 - a plan to respond to any exceedances of the performance criteria.

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

BIODIVERSITY

Biodiversity Offset Strategy

19. The Applicant **must** implement the Biodiversity Offset Strategy described in the EIS, as summarised in Table 7 and shown conceptually in Appendix 4, to the satisfaction of the Secretary.

Table 7: Summary of the Biodiversity Offsets

Area	Offset Criteria	Size (Ha)
On-site offset	Existing vegetation to be enhanced to establish an area of native woodland comprising species associated with Cumberland Plain Woodland.	1.93

Security of Offsets

20. Within 2 years of **notifying the Department of commencement of development (see condition 8 of Schedule 2)**, unless otherwise agreed with the Secretary, the Applicant **must** make suitable arrangements to provide appropriate long-term security for the offset area, to the satisfaction of the Secretary.

Note: Mechanisms to provide appropriate long term security to the land within the Biodiversity Offset Strategy include a Biobanking Agreement, Voluntary Conservation Agreement or an alternative mechanism that provides for a similar conservation outcome. Any mechanism must remain in force in perpetuity.

Biodiversity Management Plan

21. The Applicant **must** prepare a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the OEH and Camden Council;
 - (b) be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;
 - (c) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;
 - (d) describe the short, medium, and long term measures that would be implemented to:
 - manage the remnant vegetation and habitat on the site and in the offset area and;
 - implement the biodiversity offset strategy, including detailed performance and completion criteria;
 - (e) include performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);
 - (f) include a description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
 - maximising the salvage of resources within the approved disturbance area - including vegetative, soil and cultural heritage resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;

- minimising the impacts on fauna on site, including pre-clearance surveys and minimising the potential exposure to tailings;
 - controlling weeds and feral pests;
 - controlling erosion;
 - controlling access; and
 - bushfire management;
- (g) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
- (h) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

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

Conservation Bond

22. Within 6 months of the approval of the Biodiversity Management Plan, the Applicant **must** lodge a conservation bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.

The sum of the bond **must** be determined by:

- a. calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and
- b. employing a suitably qualified quantity surveyor to verify the calculated costs,
- c. to the satisfaction of the Secretary.

The calculation of the conservation bond must be submitted to the Department for approval at least 1 month prior to lodgement of the final bond.

If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.

If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works.

Notes:

- *Alternative funding arrangements for long term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEHL as part of a Biobanking Agreement or transfer to conservation reserve estate (or any other mechanism agreed with OEHL) can be used to reduce the liability of the conservation bond.*
- *The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy or the completion of major milestones within the approved plan.*

REHABILITATION

Rehabilitation Objectives

23. The Applicant **must** rehabilitate the site to the satisfaction of the Secretary. Rehabilitation must:
- a. comply with the objectives in Table 8; and
 - b. be generally consistent with the proposed rehabilitation strategy in the EIS, and the final land form shown conceptually in Appendix 4 (unless modified by the Final Land Use Options Plan, prepared in accordance with condition 25 of this consent).

Table 8: Rehabilitation Objectives

Feature	Objective
Site (as a whole)	<ul style="list-style-type: none"> • Safe, stable and non-polluting • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native species and habitat

Surface infrastructure	<ul style="list-style-type: none"> To be decommissioned and removed (unless the Secretary agrees otherwise)
Final void	<ul style="list-style-type: none"> Minimise the size, depth and slope of the batters of the final void Minimise the drainage catchment of the final void
Quarry pit floor	<ul style="list-style-type: none"> Landscaped and revegetated using native flora species, above the anticipated final void water level
Community	<ul style="list-style-type: none"> Ensure public safety

Progressive Rehabilitation

24. The Applicant **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 stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.

Final Land Use Options Plan

25. The Applicant **must** prepare a Final Land Use Options Plan for the site to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with DRE and Camden Council;
 - be submitted to the Secretary for approval within 2 years of the date of [notifying the Department of commencement of development \(see condition 8 of Schedule 2\)](#), unless the Secretary agrees otherwise;
 - provide details of the conceptual final landform and associated final land uses for the site;
 - ensure that the conceptual final land form is compatible with surrounding land uses, and is consistent with the rehabilitation objectives in Table 8 and the objectives of the Growth Centres SEPP for the South West Growth Centre;
 - inform the Rehabilitation Management Plan (prepared in accordance with condition 26 of this consent); and
 - be reviewed every 7 years to account for applicable land use priorities, and if necessary updated.

Rehabilitation Management Plan

26. The Applicant **must** prepare a Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with OEH, DRE, [DPI Water](#) and Camden Council;
 - be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;
 - provide details of the conceptual final landform and associated land uses for the site (which must be consistent with the Final Land Use Options Plan under condition 25 of this consent);
 - describe the short, medium and long term measures that would be implemented to:
 - manage remnant vegetation and habitat on site; and
 - ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this consent;
 - include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggers for any necessary remedial action;
 - include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and
 - include details of who would be responsible for monitoring, reviewing, and implementing the plan.

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

Note: The Rehabilitation Management Plan must be reviewed, and if necessary updated, following any update of the Final Land Use Options Plan.

HERITAGE

Heritage Management Plan

27. The Applicant **must** prepare a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:
- a. be prepared in consultation with OEH;
 - (a) be submitted to the Secretary for approval prior to undertaking quarrying operations in the extension area, unless the Secretary agrees otherwise;
 - b. describe the measures that would be implemented to:
 - manage identified heritage objects, previously unidentified heritage objects or the discovery of any human remains on site;
 - ensure ongoing consultation with Aboriginal stakeholders in the conservation and management of any Aboriginal cultural heritage values on site; and
 - protect sites identified adjacent to the development.

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

VISUAL

28. The Applicant **must** establish a vegetation screen on both noise bunds, as soon as practicable after construction of the bunds, to minimise visibility of site infrastructure from outside the development area. Following establishment, the Applicant **must** maintain the vegetation screen, to the satisfaction of the Secretary.
29. The Applicant **must**:
- a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development; and
 - b) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting*, or its latest version.

BUSHFIRE MANAGEMENT

30. The Applicant **must**:
- a) ensure that the development is suitably equipped to respond to any fires on site; and
 - b) assist the Rural Fire Service, emergency services and National Parks and Wildlife Service as much as practicable if there is a fire in the surrounding area.

WASTE

31. Prior to importing onto the site any material that may be classified as a waste under the EPA *Waste Classification Guidelines 2009* (or its latest version), the Applicant **must** obtain a 'resource recovery exemption' under the POEO Act and provide evidence of this exemption to the Department.

Note: This condition does not apply to routine deliveries to the site.

32. The Applicant **must**:
- a) manage on-site sewage treatment and disposal in accordance with the requirements of its EPL, and to the satisfaction of the EPA and Camden Council; and
 - b) pump all sewage generated and stored on-site to a sewage treatment facility, unless otherwise agreed with the Secretary.
33. The Applicant **must**:
- a) minimise the waste generated by the development;
 - b) ensure that the waste generated by the development is appropriately stored, handled, and disposed of; and
 - c) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. As soon as practicable after obtaining monitoring results showing an exceedance of any relevant criteria in schedule 3, the Applicant **must** notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria.

INDEPENDENT REVIEW

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

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

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the development is complying with the relevant criteria in schedule 3;
 - if the development is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and
- (b) give the Secretary and landowner a copy of the independent review.

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

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

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

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

Adaptive Management

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

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

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

Management Plan Requirements

3. The Applicant must ensure that the Management Plans required under this consent are prepared in accordance with any relevant guidelines, and include:
 - (a) detailed baseline data;
 - (b) a description of:
 - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - any relevant limits or performance measures/criteria; and
 - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;
 - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
 - (d) a program to monitor and report on the:

- impacts and environmental performance of the development; and
 - effectiveness of any management measures (see (c) above);
- (e) a contingency plan to manage any unpredicted impacts and their consequences;
- (f) a program to investigate and implement ways to improve the environmental performance of the development over time;
- (g) a protocol for managing and reporting any:
- incidents;
 - complaints;
 - non-compliances with statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
- (h) a protocol for periodic review of the plan.

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

Annual Review

4. By the end of September each year, the Applicant **must submit a report to the Department reviewing** the environmental performance of the development to the satisfaction of the Secretary. This review must:
- (a) describe the development (including rehabilitation) that was carried out in the previous **financial** year, and the development that is proposed to be carried out over the current **financial** year;
- (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous **financial** year, which includes a comparison of these results against:
- the relevant statutory requirements, limits or performance measures/criteria;
 - the monitoring results of previous years; and
 - the relevant predictions in the **documents in condition 2(a) 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 development;
- (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
- (f) describe what measures will be implemented over the current **financial** year to improve the environmental performance of the development.

Revision of Strategies, Plans and Programs

5. **Within 3 months of the submission of an:**
- (a) **Annual Review under condition 4 above;**
- (b) **incident report under condition 7 below;**
- (c) **audit report under condition 9 below; and**
- (d) **any modifications to this consent,**
- the Applicant **must review the strategies, plans and programs required under this consent, to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Secretary.**

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

Community Consultative Committee

6. The Applicant **must** establish and operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Developments* (Department of Planning, 2007, or its latest version), and be operating **prior to the commencement of development under this consent.**

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.*

- *In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Applicant, Camden Council and the local community.*

REPORTING

Incident Reporting

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

Regular Reporting

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

INDEPENDENT ENVIRONMENTAL AUDIT

9. Within a year of **commencing development under this consent**, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant **must** commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
 - (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licence (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 development, and/or any assessment, plan or program required under these approvals; **and be conducted and reported to the satisfaction of the Secretary.**

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

10. Within **12 weeks of commencing** this audit, unless the Secretary agrees otherwise, the Applicant **must** submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, including a timetable for the implementation of any measures proposed to address the recommendations in the audit report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented.

Within 7 days of commencing the audit, the Applicant must notify the Department in writing of the commencement of the audit.

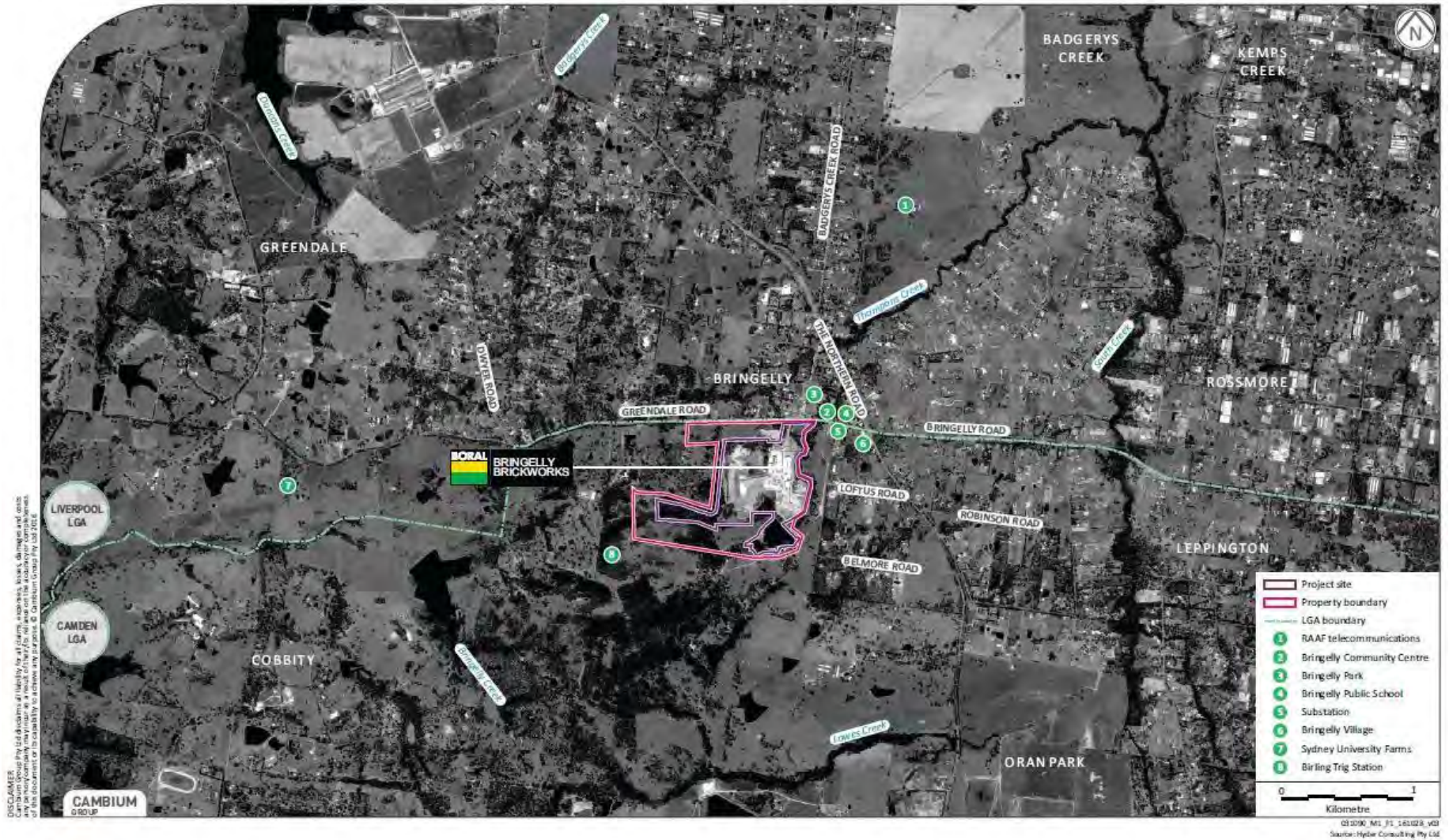
ACCESS TO INFORMATION

11. Within 6 months of **commencing development under this consent**, the Applicant **must**:
 - (a) make copies of the following publicly available on its website:
 - the documents in **condition 2(a) of Schedule 2**;
 - current statutory approvals for the development;
 - approved strategies, plans and programs required under the conditions of this consent;
 - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - a complaints register, which is to be updated monthly;
 - minutes of CCC meetings;
 - the annual reviews of the development (for the last 5 years);
 - any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;
 - any other matter required by the Secretary; and

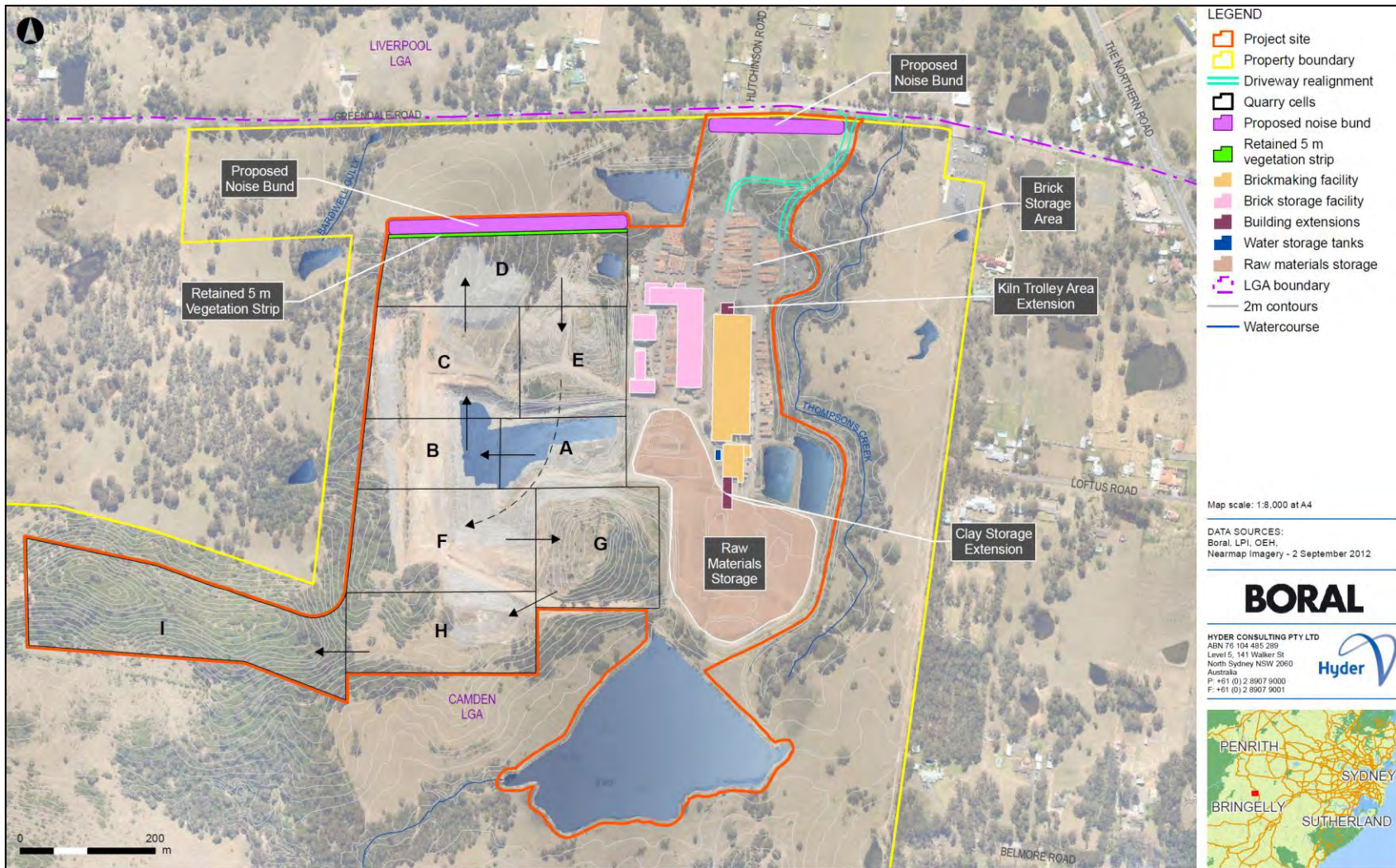
(b) keep this information up-to-date,
to the satisfaction of the Secretary.

APPENDIX 1 DEVELOPMENT AREA

BRINGELLY BRICKWORKS AND QUARRY EXPANSION - MODIFICATION 1



APPENDIX 2 DEVELOPMENT LAYOUT

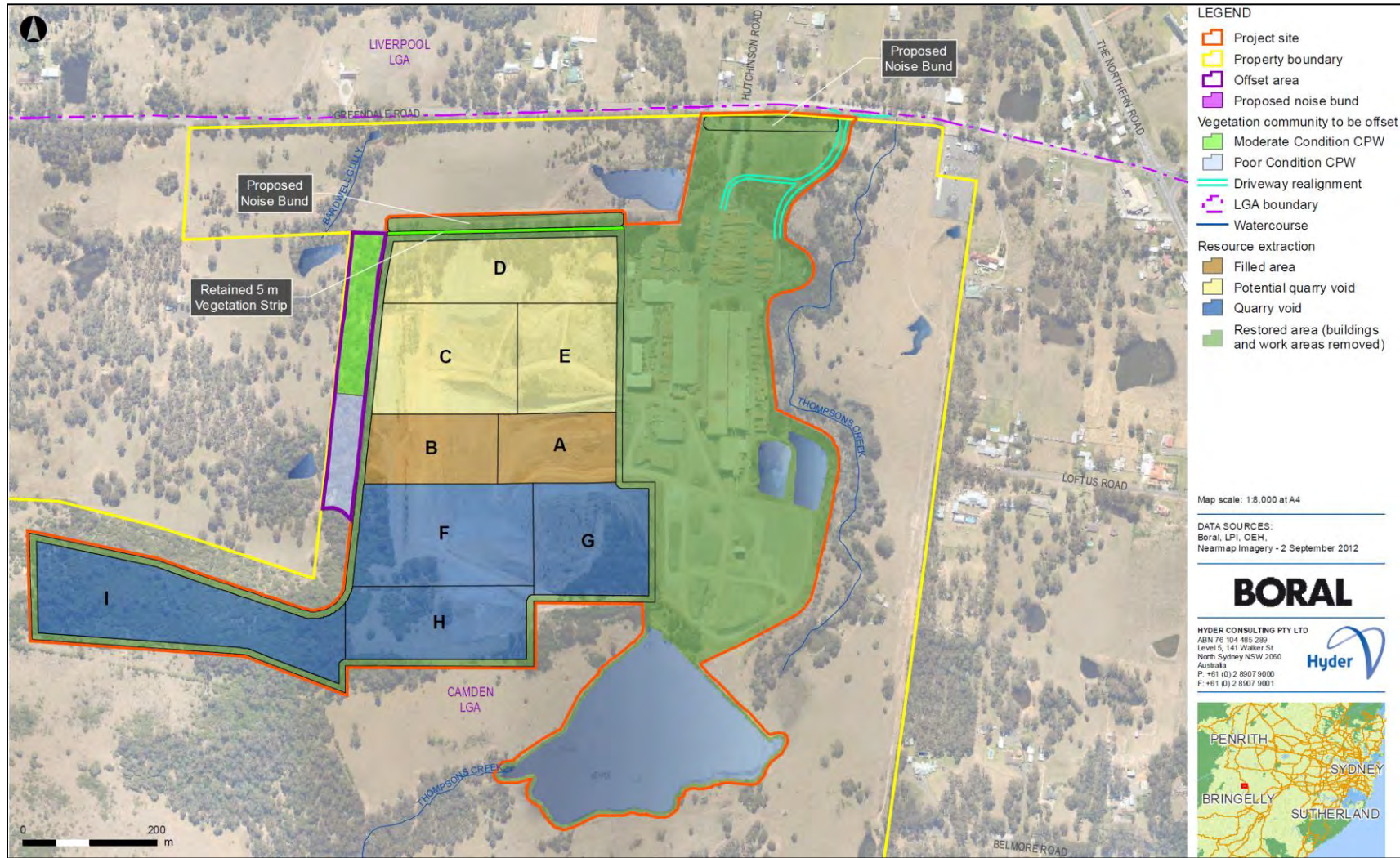


**APPENDIX 3
RECEIVER LOCATIONS**



Receiver number	Receiver address
1	55 Loftus Road
2	54 Loftus Road
3	20 Greendale Road
4	9 Greendale Road
5	5 Greendale Road (Bringelly Community Centre)
6	46 Loftus Road
7	36 Loftus Road
8	47 Loftus Road
9	37 Loftus Road
10	27 Loftus Road
11	26 Loftus Road
12	15 Loftus Road
13	5 Loftus Road
14	23 Greendale Road
15	27 Greendale Road
16	29 Greendale Road
17	25 Greendale Road
18	31 Greendale Road
19	35 Greendale Road
20	170 Tyson Road
21	196 Greendale Road
22	46 Belmore Road
23	55 Belmore Road
24	63 Belmore Road
25	67 Belmore Road
26	73 Belmore Road
27	83-85 Belmore Road
28	76 Belmore Road
29	86 Belmore Road
30	87 Belmore Road
31	93 Belmore Road
32	95-97 Belmore Road
33	107 Belmore Road
34	96 Belmore Road
35	108 Belmore Road
36	1037 Northern Road
37	10 Greendale Road
38	Bringelly Public School

APPENDIX 4 CONCEPTUAL FINAL LANDFORM AND BIODIVERSITY OFFSET STRATEGY



APPENDIX 5 NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

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

Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions **must** be that recorded by the meteorological station on or in the vicinity of the site.

Compliance Monitoring

3. Unless directed otherwise by the Secretary, quarterly attended monitoring is to be used to evaluate compliance with the relevant conditions of consent.

Note: The Secretary may direct that the frequency of attended monitoring increase or decrease at any time during the life of the development.

4. Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
 - (a) monitoring locations for the collection of representative noise data;
 - (b) meteorological conditions during which collection of noise data is not appropriate;
 - (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
 - (d) modifications to noise data collected including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.

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Beyond Compliance

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