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

Year Ending 30th June 2025

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Bringelly Clay Mine Annual Report 2025	
Name of Mine	Bringelly Clay / Shale Mine
DA Number	SSD5684
Mining Authorisations	ML1731
Mine Lease Grant Date	9th March 2016
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	Joe Gauci, (02) 9826 3964 jgauci@csr.com.au
Name and Contact Details of the Environmental Representative	Jordan Gavel jgavel@csr.com.au
Name of the Representative of the Authorisation Holder	Joe Gauci, (02) 9826 3964 jgauci@pghbricks.com.au

Revision Table

Date	Version	Author	Reviewed	Approved
16/09/2025	D0 for client review	LT/SK		
19/09/2025	D1 for internal review	LT/SK	GT	
19/09/2025	D2 for PGH review	LT/SK	N/A	
29/09/2025	D3 for internal review	SK	LT	
29/09/2025	F0 for PGH review	SK	LB	
30/09/2025	F1 for PGH review	SK		

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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 2024 to 30 June 2025. 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.

The noise bund north of the pit extraction has been constructed and mulched. It is proposed to apply spray mulch when conditions are most suitable for strike rate.

There are 12 non-compliances in the period 1st July 2024 to 30th June 2025 with the conditions in the SSD 5684 Mod 1 consent, and no non-compliances against the Mining Lease 1731, Environment Protection Licence 1808, or the water licences (numbers given in *Table 7*). The non-compliances were regarding truck counts out of hours and no evidence being provided that the 2024 Independent Environmental Audit actions were addressed in the consented timeframe.

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 with the SSD_5684 Mod 1 conditions of consent for the Annual Review (AR) (Schedule 5, Condition 4) reporting requirements to NSW Department of Planning, Housing and Infrastructure (DPHI). Mining Lease conditions require reporting on the dedicated portal; a copy of this report is available on request or is also available on the PGH Bricks & Pavers Pty Ltd website.

This report covers the financial year from 1st July 2024 to 30th June 2025. During the reporting period PGH Bricks & Pavers Pty Ltd was acquired by Saint-Gobain.

2.3 QUARRY CONTACTS

Table 1. Contact Details

Aspect	Brickworks Manager	Mine Manager
Name	George Zahra	Joe Gauci
Company	PGH Bricks & Pavers Pty Ltd	PGH Bricks & Pavers Pty Ltd
Address	Greendale Road	59-67 Cecil Road
	Bringelly	Cecil Park
Mobile	0457 507 203	0417 683 526
Phone	02 9852 6732	02 9826 3964
Email	gzahra@csr.com.au	jgauci@csr.com.au

3 Statement of Compliance

Table 2. Statement of Compliance

<table>
<tr><th>Relevant Approval</th><th>Relevant Conditions</th><th>Compliant?</th><th>Actions Taken</th></tr>
<tr><td>SSD_5684 Mod 1</td><td>Schedule 2 Condition 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."</td><td>No</td><td>Not all conditions compliant.</td></tr>
<tr><td></td><td>Schedule 2 Condition 4 - “The Applicant must comply with...:

(a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted…;

(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.”</td><td>No</td><td>Evidence was not located to show that all comments from DPIE have been addressed, due to changes in the operational management in CSR an action plan and updates following the IEA was not submitted in 2024-2025 reporting period.</td></tr>
<tr><td></td><td>Schedule 2 Condition 7 – “The Applicant must not:

…(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.”</td><td>No</td><td>Schedule 2 Condition 7b was non-compliant on 3 occasions due to trucks per hour reaching 19. Condition 7c was non-compliant on two occasions due to receiving more than 90 trucks a day. Details in Section 6.6.</td></tr>
<tr><td></td><td>Schedule 3 Condition 1: Hours of Operation

Table 1: Operating Hours
<table>
<tr><th>Activity</th><th>Operating Hours</th></tr>
<tr><td>▪ Quarrying operations
▪ Deliveries
▪ Dispatch of finished bricks</td><td>6am to 6pm, Monday to Friday
6am to 1pm, Saturday
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 Holiday</td></tr>
</table></td><td>No</td><td>The gate service provider was changed to improve gate, sensor and counter, see Section 6.3.</td></tr>
<tr><td></td><td>Schedule 3 Condition 4A – “The Applicant must ensure that the noise bund adjacent to Greendale Road is constructed prior to the commencement of brick making operations.”</td><td>No</td><td>The bund adjacent to Greendale Road has not been constructed. This matter is being addressed with Mod-2.</td></tr>
<tr><td></td><td>Schedule 3 Condition 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.”</td><td>No</td><td>The new site access road has not been built. This matter is being addressed with Mod-2.</td></tr>
<tr><td></td><td>Schedule 3 Condition 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.”</td><td>No</td><td>Biodiversity offset strategy not implemented. This matter is being addressed with Mod-2.</td></tr>
</table>

Relevant Approval	Relevant Conditions	Compliant?	Actions Taken
	Schedule 3 Condition 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."	No	This matter is being addressed with Mod-2.
	Schedule 3 Condition 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…"	No	Conservation Bond not submitted within 6 months of commencement.
	Schedule 5 Condition 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."	No	Nil to date, see Section 4.2, Table 3, and Section 14.
	Schedule 5 Condition 6: - "The Applicant must establish and operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary… "	No	The CCC has been dissolved, at the request of the committee, *Section 11.*
	Schedule 5 Condition 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."	No	Nil to date, see Section 4.2, Table 3, and Section 14.
EPL1808	Yes		Details in *Section 7.3*
ML1771	Yes		
Water Licences (*Table 7*)	Yes		

A full list of conditions and compliance status is included in *Appendix F*.

Plan of:	**Annual Review for Bringelly Clay/Shale Mine & Brickworks Year Ending 30/06/2025 - Site Location**	**Location:**	Bringelly Clay Mine, Off Greendale Road, Bringelly, NSW	**Source:**	Google OpenStreetMaps & nearmap - Image Date 22/06/2025 Zone MGA 56	**Plan By:**	SK/JD
Figure:	**ONE**	**Council:**	Camden Council	**Survey:**	Not Applicable	**Project Manager:**	LT
Version/Date:	V0 28/08/2025	**Tenure:**	ML 1731	**Projection:**	GDA2020/MGA Zone 56 EPSG:7856	**Office:**	Thornton
Our Ref:	12741_BR_AR2025_Q001_V0_F1	**Client:**	PGH Bricks & Pavers Pty Ltd	**Contour Interval:**	Not Applicable		

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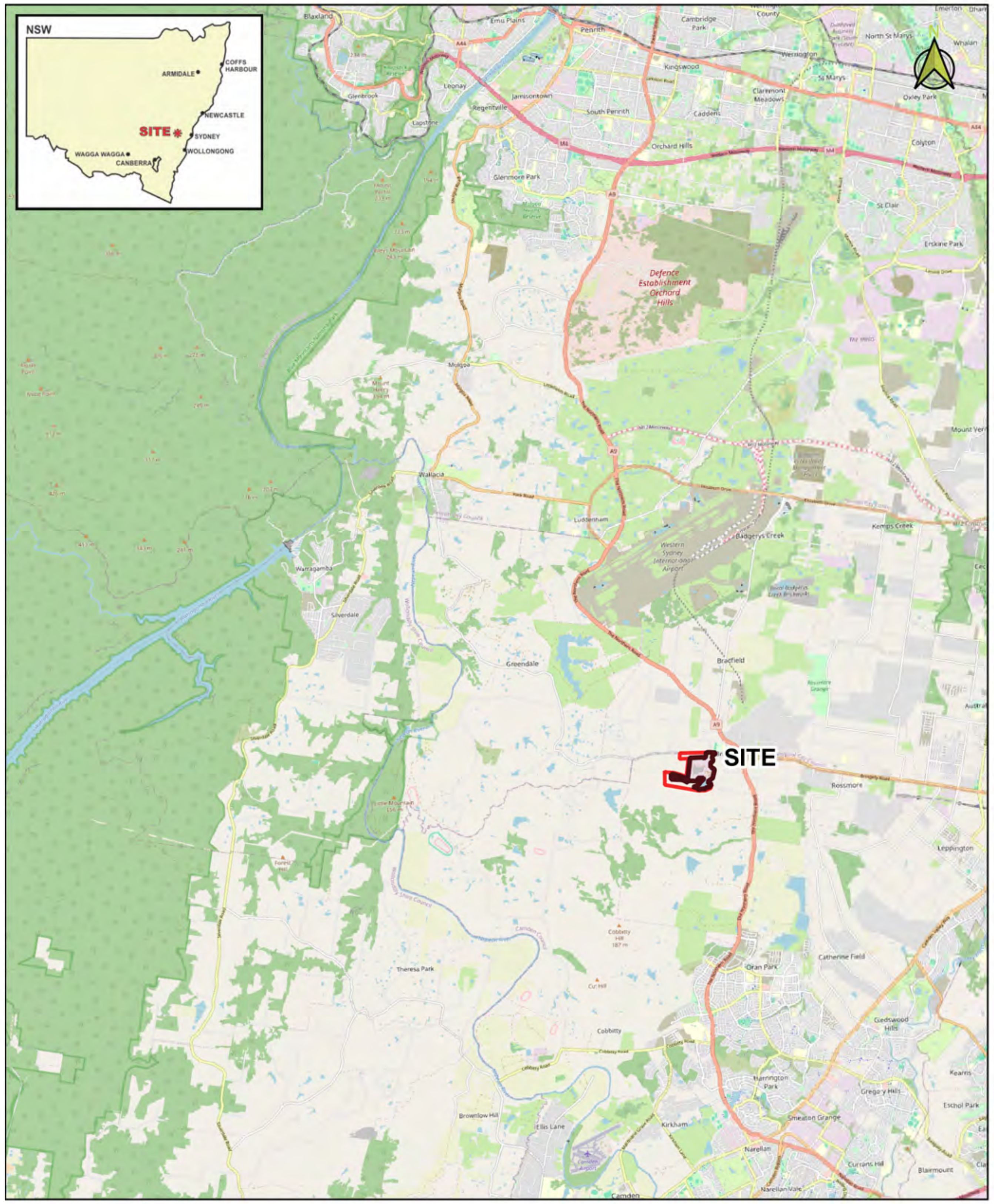
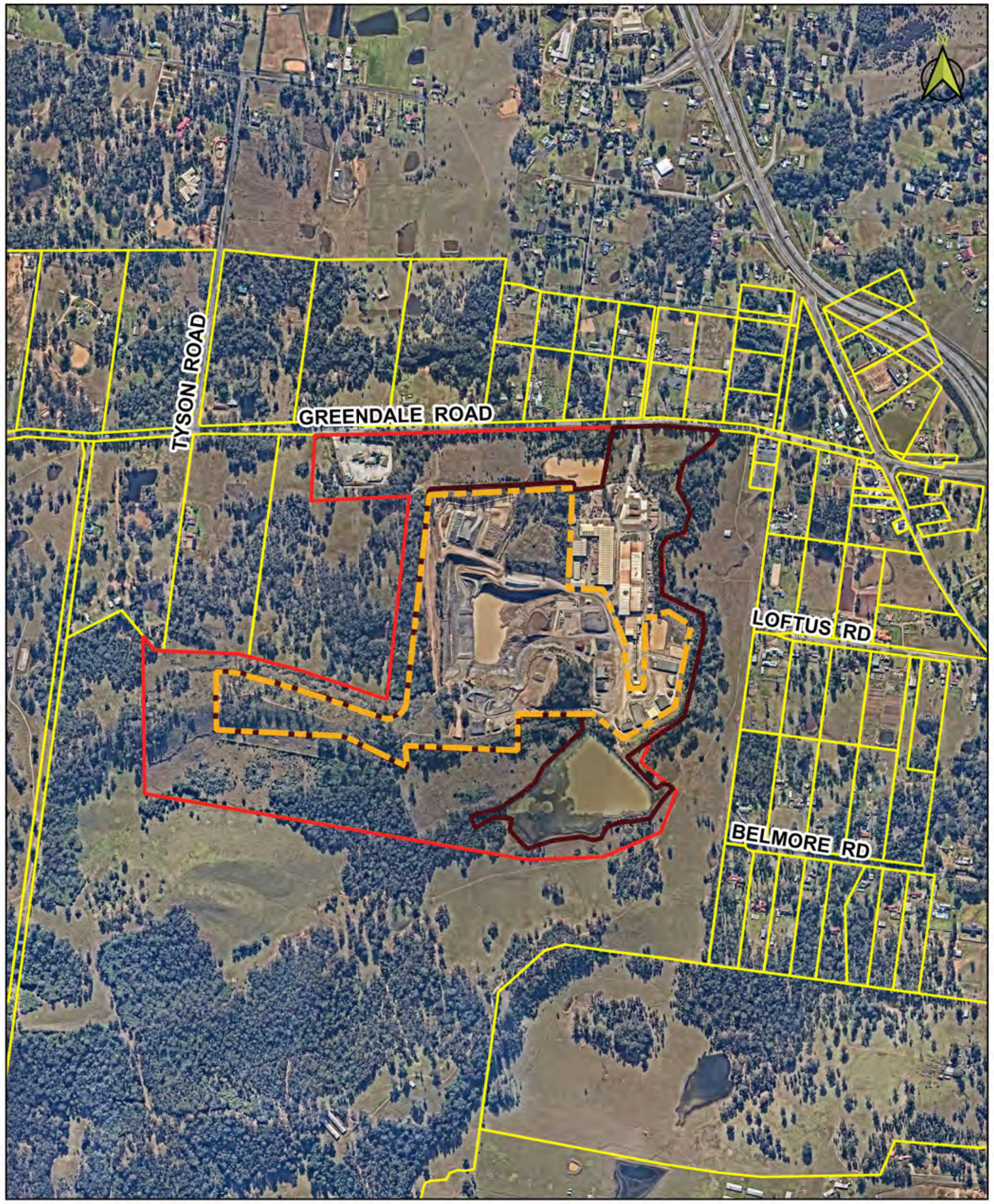


0 2.5 5 7.5 km



0 250 500 750 m

Legend

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

Plan of:	**Annual Review for Bringelly Clay/Shale Mine & Brickworks Year Ending 30/06/2025 - Current Site Layout**	**Location:**	Bringelly Clay Mine, off Greendale Road, Bringelly, NSW	**Source:**	nearmap - Imagery Dated 22/06/2025 MGA Zone 56	**Plan By:**	SK/JD
Figure:	**TWO**	**Council:**	Camden Council	**Survey:**	GDA2020 MGA Zone 56, NSW Government Spatial Services, July 2019 Survey, Accessed Through ELVIS & Mulgoa's June 2025 Survey & Property boundary from NSW Clip & Ship	**Project Manager:**	LT
Version/ Date:	V0 05/09/2025	**Tenure:**	ML 1731	**Projection:**	GDA2020 Geoscience Australia Lambert EPSG:7856		
Our Ref:	12741_BR_AR2025_Q002_V0_F2	**Client:**	PGH Bricks & Pavers Pty Ltd	**Contour Interval:**	5m		

N

0 100 200 m

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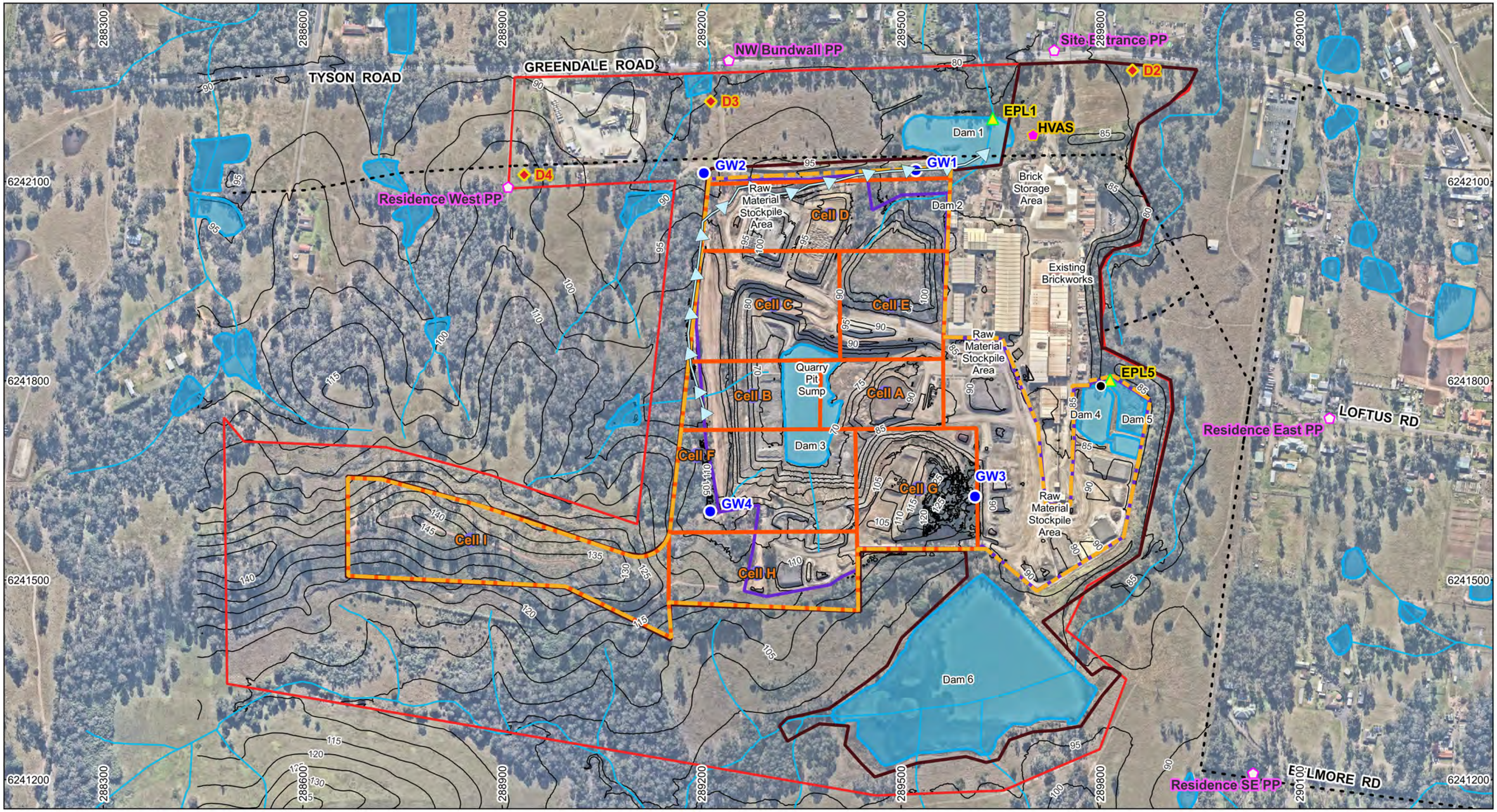


Legend

Feature/Domain

- Cadastral Boundary
- Project Approval Boundary
- River/Major Drainage Line
- Electricity Transmission Line
- Surface Water Monitoring Location
- Groundwater Monitoring Location
- Dust Gauge Monitoring Location
- High Volume Air Sampler (HVAS)
- Pump
- Visual Monitoring Points
- Section 96 (1A) Mod Consent August 2016
- 5m Contour
- Drain

Mining Tenement

- Authority Boundary (ML 1731)
- Area of Disturbance

Primary Domains (Operational)

- Water Management Area

4 Actions Required from Past Reports

4.1 ANNUAL REVIEW 2024

Following the submission of the 2024 Annual Review an updated Landscape Management Plan including vegetation screen details was requested by DPHI. A Proposed Vegetation Management Plan for the northern bund was submitted and no evidence of a response was able to be located in the preparation of this report.

4.2 INDEPENDENT ENVIRONMENTAL AUDIT

In accordance with Condition Schedule 5 Conditions 9, an Independent Environmental Audit was undertaken by Element commencing 24th February 2024 and the report completed 4th July 2024. 23 non-compliances were found; an action plan was not developed due to changes in operational management during the period after IEA submission. Updates towards the non-compliances from the IEA are listed in *Table 3* and improvement measures for next reporting period are listed in *Section 14*. Seven non-compliances have been closed out since the IEA was submitted.

Table 3. Independent Audit 2024 Non-Compliances Status

Non-Compliance Identification Number	Condition	Requirement	Issue sighted	Recommendation	Action Taken	Due Date	Documentation/ Status
IEA2-1	Schedule 2 Condition 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.	The project was not carried out in compliance with all conditions stipulated in this consent.	As per recommendations below.	IEA and consent conditions reviewed during the preparation of this report.	Every month until all listed non-compliances are closed out.	This table.
IEA2-2	Schedule 2 Condition 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	a) 176,750 tonnes of bricks left the site during 2021 189,027 tonnes of bricks left the site during 2022 190,885 tonnes off bricks left the site during 2023. b) Truck tracking data provided by CSR indicates that more than 90 trucks were received at the site on the following dates: - 93 trucks on 30 November 2022 - 93 trucks on 3 August 2023 - 93 trucks on 4 August 2023 - 92 trucks on 7 September 2023 - 91 trucks on 23 September 2021 - 91 trucks on 12 July 2023 - 91 trucks on 21 July 2023 - 91 trucks on 22 July 2023 - 91 trucks on 2 May 2024 - 91 trucks on 30 October 2023 - 91 trucks on 6 September 2023 - 91 trucks on 3 August 2023 However CSR advised that this data is based on an indiscriminate sensor located outside of the access gate and picks up any movement, such as moths, animals or moving plants. Further, the sensor can double count trucks if they need to manoeuvre to realign themselves before entering the site. As such, the sensor provides an indiscriminate and unreliable count of movement at the front gate and is not a verifiable counter of truck entries. CSR provided another data set kept by the gatehouse attendee who notes the quantity of vehicles that come through the gate and maintains a spreadsheet that accurately records total truck entries and origin. According to this second dataset, there are three noncompliant entries: 93 entries on 30 November 2022, 91 entries on 6 September 2023, 91 entries on 30 October 2023	Ensure boom gate automatically closes upon the arrival of the 90th truck each day and/or 18th truck per hour. Truck count numbers to reset appropriately at midnight. Bypass arrangement to be discussed with DPHI regarding how to manage trucks that have entered the driveway off Greendale Road after 90 trucks have entered the site. (Element notes these trucks are currently allowed through the access gate to bypass directly through the site without loading or unloading). Existing sensor indiscriminately counts movement at the front gate. This does not provide a reliable truck count. The sensor should be modified / moved /upgraded to provide accurate timestamped truck entries to the site.	Between November 2024 and April 2025 multiple issues were addressed, culminating in a change of the gate service provider.	Within three months of Annual Review submission.	Ongoing. See 6.3

Non-Compliance Identification Number	Condition	Requirement	Issue sighted	Recommendation	Action Taken	Due Date	Documentation/ Status
		(c) dispatch more than 90 trucks from the site per day or more than 18 trucks per hour.	c) A sample of daily records were reviewed and trucks per hour were not seen to be non-compliant within these samples. It is noted that trucks per hour were shown to be non-compliant in the original dataset, however as described above these are not considered to be reliable hourly counts. Based on this, it is considered that the development is compliant with the consented limit on hourly truck entries.				
IEA2-3	Schedule 2 Condition 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.	Quarrying operations commenced under this consent in March 2023 and Element has not sighted evidence that boundaries remain clearly marked out, nor did Element observe pegs during the site visit.	A search is to be undertaken for survey pegs, all pegs to be pictured, dated and co-ordinates saved on internal systems to ensure all pegs can be easily located and identified. All survey pegs should be located prior to any further quarrying activities at the site.	ML survey pegs have been placed around the site. Delineation of the factory and mine has been noted.	Not applicable.	Closed.
IEA2-4	Schedule 3 Condition 4A	The Applicant must ensure that the noise bund adjacent to Greendale Road is constructed prior to the commencement of brick making operations.	Brick making is occurring under SSD_5684. However, the bund adjacent to Greendale Road has not been constructed.	Element understands this matter is to be resolved under Modification 2, which is currently under assessment.	Nil to date.	Following Modification 2 assessment.	This matter is being addressed with Mod-2. Ongoing.
IEA2-5	Schedule 3 Condition 6	The Applicant must prepare and implement 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	The Department approved revised versions of environmental management plans on 12 December 2019, prior to the commencement of development under this consent. The approval included revision 4 of the Noise Management Plan as required under this condition. The current noise management plan (Revision 7, dated September 2021) was submitted to the Department on 13 May 2022 and approved by the Department on 16 May 2022. The letter from the Department dated 16 May 2022 acknowledges that the revisions included consultation with the EPA. Quarterly noise monitoring was carried out during the audit period with the exception of quarter 3 in 2021, however it is understood that consultants were unable to get to site due to Covid-19 restrictions that were in place at the time. Given that quarterly noise monitoring was not implemented for each quarter within the audit period, the project is non-compliant with this condition.	CSR to pro-actively engage noise consultants ahead of quarterly monitoring deadlines and ensure that resources are in place to carry out the monitoring within the timeframes required under this condition.	Quarterly noise monitoring occurred in August 2024, November 2024, February 2024 and May 2024.	Not Applicable.	*Section 7.5, Appendix I*. Closed.

Non-Compliance Identification Number	Condition	Requirement	Issue sighted	Recommendation	Action Taken	Due Date	Documentation/ Status
		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.					
IEA2-6	Schedule 3	The Applicant must:	Whilst there have been a number of exceedances of 24-hour period PM10 concentrations, most are related to high wind conditions and all occurred prior to the relocating of the HVAS from near the operational area to near the project boundary. The project has not received any complaints. Water carts were observed on-site and no dust emissions were observed leaving the site. A mobile scrubber was observed moving through buildings to remove dust from the floor, and site sweeper and vacuum trucks were observed on the site which are used to remove material that falls under and around equipment to reduce dust generation. The licensed stack discharge point appeared to be in good operating condition. The scrubber at the licensed discharge point in tested in March every year. Evidence has not been sighted that confirms that all incident events specified above were reported to DPIE in accordance with the relevant air quality conditions in this consent (e.g. Section 8.7 -- Incident management of the air quality management plan under condition 9 of schedule 3, which refers to Condition 7 of Schedule 5 of this consent)	CSR to review notification requirements under the consent and implement an updated incident reporting strategy that can be shared with the site team. All exceedances of performance measures and environmental criteria under this consent must be treated as an incident, as well as any event that cause, or threatens to cause, environmental harm.	Incident reporting strategy to be updated.	Within three months of Annual Review submission.	Ongoing.
	Condition 8	(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.					
IEA2-7	Schedule 3	The Applicant must keep accurate records of the:		CSR to review data and ensure it can be presented in the forms required under the consent. CSR to include this detail in the standard output for such records.	Tonnages are provided in Annual Review.	Annually in Annual Review.	Section 6.6. Closed.
	Condition 11	(a) tonnage of bricks transported from the site (monthly and annually); and	a) Sighted extracts from SAP for tonnage of deliveries during the audit period, however it is not clear which trucks are associated with deliveries to the site and which are associated with tonnage of bricks transported from the site.				
		(b) number of laden vehicle movements from the site (hourly, daily, weekly, monthly and annually);	b) Truck counts (per hour, day, and can extrapolate to weekly, month and annually) sighted for the audit period, however it is not clear which vehicles are entering or exiting the site and which are laden.				
		(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.	c) Tonnage of materials delivered to site has been provided however these are not broken down into each type of raw material.				
IEA2-8	Schedule 3	The Applicant must ensure that:		CSR to discuss exit protocol with all heavy vehicle drivers at the site. No heavy vehicles are permitted to turn west onto Greendale Road at any time from the site. CSR to ensure that truck tyres are being cleaned adequately upon exit so that no	Nil to date.	Ongoing.	Ongoing.
	Condition 13	(a) all development-related heavy vehicles enter and exit the site in a forward direction;	a) All vehicles were observed to enter and exit site in forward direction, and the site is designed in such a way that this would be the only practical way for traffic to flow through the site.				
		(b) all laden vehicles entering or exiting the site have their loads covered (with the exception of vehicles carrying bricks);	b) Drivers code of conduct clearly outlines this requirement. No uncovered laden vehicles were observed during site visit or through aerial imagery.				

Non-Compliance Identification Number	Condition	Requirement	Issue sighted	Recommendation	Action Taken	Due Date	Documentation/ Status
		(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;	c) A high-pressure hose was observed near the exit of the site for use to clean truck tyres. A small quantity of sediment was observed on Greendale Road which indicates minor sediment tracking from the site. This may indicate that trucks are not being cleaned sufficiently prior to exiting the site.	sediment tracking occurs onto Greendale Road.			
		(d) all heavy vehicles exiting the site travel east of the site along Greendale Road to The Northern Road and/or Bringelly Road;	d) All heavy vehicles exiting the site were observed to be travelling east along Greendale Road. Signs of heavy vehicles turning west were observed on Greendale Road based on minor sediment tracking. CSR advised these movements are not associated with quarrying activities but rather employees and the water truck driver returning home. Element understands that whilst the intent of the condition may be in reference to quarry trucks, these are still considered heavy vehicles which have been exiting the site travelling west along Greendale Road, and as such the project is noncompliant with this condition.				
		(e) the dispatch of laden trucks is avoided during the peak dropoff 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	e) No complaints have been received on site or from the CCC regarding traffic impacts near the school. .				
		(f) no trucks queue at the entrance to the site before 6am.	f) It is assumed there is no queueing before 6am as no complaints have been received				
IEA2-9	Schedule 3	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.	On 18 February 2020, CSR notified the Department that development under the consent would commence on 24 February 2020, and as such this condition was required to be complied with by 24 February 2021. CSR applied for a 24-month extension on 17 December 2020. The Department responded on 24 February 2021 approving a 12-month extension for Condition 14 of Schedule 3, extending the deadline to 18 February 2022.	Element understands this matter is to be resolved under Modification 2, which is currently under assessment.	Nil to date.	Following Modification 2 assessment.	Ongoing.
	Condition 14	The Applicant must notify the Secretary in writing within 30 days of obtaining Council approval.	Element notes the extension date of 18 February 2022 is likely an error based on the date that the Department was notified of development commencement, rather than the date that development actually commenced. CSR submitted another extension request to the Department on 17 November 2021. The Department responded on 13 December 2021 approving a 6-month extension (until 18 August 2022) given that a modification (Mod 2) is due to be lodged during March				

Non-Compliance Identification Number	Condition	Requirement	Issue sighted	Recommendation	Action Taken	Due Date	Documentation/ Status
		Within 7 days of completing construction and the new site access road being operational, the existing site access road must be permanently closed.	2022 and would seek to amend the timeframe specified in Condition 14 of Schedule 3. The modification report for Mod 2 was submitted on 8 September 2022, and CSR submitted another extension request to the Department on 13 September 2022. The Department responded on 17 September 2022 approving a 12-month extension request (until 18 August 2023). No further extension request was submitted to the Department, and as such the project is now noncompliant with this condition.				
IEA2-10	Schedule 3 Condition 17	The Applicant must comply with the discharge limits in any EPL or with Section 120 of the POEO Act.	EPL 1808 has two points of discharge to water with stipulated concentration limits (Point 1 and Point 5). Point 1 must be sampled weekly during a discharge and Point 5 must be sampled 24-hours prior to a discharge. Discharge from point 5 was reviewed and determined to be compliant with EPL 1808. Discharge from point 1 was reviewed and 5 discharge events were determined to be non-compliant with EPL 1808 due to exceedances of pH during overflow discharge (pH detected outside of range permitted under the EPL, which is not included as an exemption under condition L3.6 of the EPL during heavy rainfall).	Element notes that CSR has limited control over discharge from point 1 as it overflows during heavy rain events. Consideration should be given to the possibility of removing discharge point 1 from the licence given it is an uncontrolled discharge point that is not located within the project site.	CSR advised in version F1 of AR2023-2024 that there were no exceedances of the EPL surface water discharge limit in the 2023-2024 reporting period. There were no exceedances for the 2024-2025.	Not Applicable.	Section *7.3.1*. Closed.
IEA2-11	Schedule 3 Condition 19	The Applicant must implement the Biodiversity Offset Strategy described in the EIS, as summarised in Table 7 (refer to Project Approval) and shown conceptually in Appendix 4 (refer to Project Approval), to the satisfaction of the Secretary.	CSR has applied for, and been granted, several deadline extensions to satisfy the Biodiversity Offset Strategy described in the EIS, however the project has been unable to do so. An additional extension was requested on 13 September 2022 however the extension was not granted. Given the project is unable to implement the Biodiversity Offset Strategy as described in the EIS, the project is non-compliant with this condition.	Element understands this matter is to be resolved under Modification 2, which is currently under assessment.	Nil to date.	Following Modification 2 assessment.	Ongoing.
IEA2-12	Schedule 3 Condition 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.	As above. Given the extension requests were declined, the project is non-compliant with the timeframe stipulated under this condition. It is understood that the Department is aware that an appropriate biodiversity offset strategy will be addressed for the site in Mod 2.	Element understands this matter is to be resolved under Modification 2, which is currently under assessment.	Nil to date.	Following Modification 2 assessment.	Ongoing
IEA2-13	Schedule 3 Condition 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.	A conservation bond has not been paid. CSR advised that DPIE has been unable to give direction on who to make payment to or how to make payment. The project is non-compliant with this condition.	CSR is to renew efforts to identify the correct payment pathway for the conservation bond.	Nil to date.	Following Modification 2 assessment.	Ongoing

Non-Compliance Identification Number	Condition	Requirement	Issue sighted	Recommendation	Action Taken	Due Date	Documentation/ Status
IEA2-14	Schedule 3 Condition 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.	The noise bund north of the quarry extraction area was built in March 2023, and has minimal vegetation comprising of weeds and exotic shrubs with some native saplings interspersed throughout. The vegetation screening does not appear to be maintained and is not considered sufficient for the purposes of this condition. The noise bund off Greendale road has not been built.	CSR must provide adequate vegetation screening on the quarry noise bund using native seed or other non-weed species suitable for such use. The vegetation screen must be maintained to ensure compliance with this condition. Element understands the matter related to the Greendale road noise bund is to be resolved under Modification 2, which is currently under assessment.	The quarry noise bund is proposed to be spray mulched when conditions are most suitable for strike rate.	As soon as practicable.	Ongoing. Section *6.12.*
IEA2-15	Schedule 4 Condition 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.	Element has not witnessed any notification of landowners for any exceedances of criteria listed in Schedule 3. Element notes that the air quality impacts were identified on-site however CSR could not determine whether these impacts were affecting neighbouring landowners. Where there is uncertainty, neighbouring landowners should be notified.	CSR to implement landowner notification protocol in the event that environmental criteria are exceeded, e.g. protocol established detailing which landowners should be notified if air quality exceedance is identified for various wind directions.	Nil to date. Not triggered during this reporting period.	Within three months of Annual Review submission.	Ongoing.
IEA2-16	Schedule 5	The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 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:	The development has resulted in exceedances of the criteria provided in conditions 1, 7 and 17 of Schedule 3 to this consent. Element has not witnessed evidence to suggest that CSR:	CSR to continuously monitor performance measures listed under schedule 3 and implement protocol to address this consent adequately. This can be completed in a standard form template where measures are described and implemented, and any remediation is considered and actioned as required.	Nil to date.	Within three months of Annual Review submission.	Ongoing.
	Condition 2	(a) take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur;	a) took all reasonable and feasible measures to ensure that the exceedance ceases and does not recur; or,				
		(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	b) considered all reasonable and feasible options for remediation (where relevant) and/or submitted a report to the Department describing those options and any preferred remediation measures or other course of action.				
		(c) implement remediation measures as directed by the Secretary;	c) No remediation measures were recommended by the Secretary				
IEA2-17	Schedule 5	The Applicant must ensure that the Management Plans required under this consent are prepared in accordance with any relevant guidelines, and include:	Management plans triggered by the commencement of development under SSD_5684 are: traffic management plan, water management plan, air quality management plan, noise management plan, biodiversity management plan, rehabilitation management plan and heritage management plan.	CSR to update management plans to include contingencies as required.	Nil to date	Following Modification 2 assessment.	Ongoing
	Condition 3	(a) detailed baseline data;					

Non-Compliance Identification Number	Condition	Requirement	Issue sighted	Recommendation	Action Taken	Due Date	Documentation/ Status
		(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.	These plans have been reviewed in reference to the requirements of this condition. The air quality management (revision 6), water management plan (revision 4) and heritage management plan (revision 5) does not contain contingencies should limits be exceeded, and the heritage management plan does not contain measures for reporting incidents. Further, no evidence has been sighted to indicate that the Department has approved the current revisions of these plans: Heritage management plan (revision 5, dated December 2020) Water management plan (revision 4, dated December 2020). Air quality management plan (Revision 6, dated December 2020). CSR advised that Debbie Cook (CSR) spoke with the Department regarding the minor changes to the above three plans and the Department did not require the revision to be submitted for approval given the changes were minor (format, layout, history update).				
IEA2-18	Schedule 5 Condition 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:	Annual reviews sighted for 2021, 2022 and 2023. The 2021 annual review was submitted to the Department on 29 September 2021 as noted in correspondence from the Department dated 17 November 2021. The 2022 annual review was completed on 30 June 2022 and was submitted to the Department on 29 September 2022 as per correspondence from the Department dated 12 October 2022. The 2023 annual review had not been submitted to the Department at the time of the audit. It is noted that CSR has since provided evidence of submission of the 2023 annual review to the department on 24 June 2024.	CSR to ensure annual reviews are submitted to the Department by the end of September each year.	2024 AR submitted prior to due date.	30th September annually.	Closed.

Non-Compliance Identification Number	Condition	Requirement	Issue sighted	Recommendation	Action Taken	Due Date	Documentation/ Status
		• 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.					
IEA2-19	Schedule 5 Condition 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.	Whilst revisions have been carried out on management plans and programs, they have not been carried out at the frequency required by annual reviews and incident reports. The development is non-compliant with this condition as all strategies, plans and programs required under this consent are not reviewed within 3 months of incident reports and annual reviews. Element notes that a letter from DPIE to CSR dated 17 November 2021 acknowledging the satisfactory submission of the 2021 Annual review included a reminder that in accordance with this condition all strategies, plans or programs required under the consent are required to be reviewed, and if required resubmitted and approved by the Secretary. It does not appear that this review was carried out.	CSR to update and implement review schedule for all strategies, management plans and programs required under this consent. This schedule is to be regularly checked and updated to ensure compliance with this condition is maintained.	Nil to date.	Following Modification 2 assessment.	Ongoing.
IEA2-20	Schedule 5 Condition 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.	An incident is defined in the development consent to include "a set of circumstances that breaches or exceeds the limits of performance measures/criteria in this consent", and as such the exceedances identified in Conditions 1, 7 and 17 of Schedule 3 are considered to be incidents. These incidents were not all immediately notified to the Department and a report of the incident was not submitted within 7 days.	CSR to ensure that the notification and reporting requirements outlined in approved management plans are implemented following the identification of any incident, which includes exceedance of performance measures and criteria under the consent.	Nil to date.	Following Modification 2 assessment.	Ongoing.
IEA2-21	Schedule 5 Condition 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.	The environmental performance of the development is monitored and reported within the annual reviews. The annual reviews for 2021 and 2022 are publicly available on the PGH website however the annual review for 2023 was made public and submitted to the Department in June 2024, outside of this audit period.	CSR to ensure all reporting requirements are listed in a chronological schedule to assist staff in organising and resourcing the preparation and submission of all reports and reviews required under this consent.	Website has been updated.	Monthly review.	Closed.

Non-Compliance Identification Number	Condition	Requirement	Issue sighted	Recommendation	Action Taken	Due Date	Documentation/ Status
IEA2-22	Schedule 5 Condition 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; and (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.	Development commenced under this consent on 24 February 2020. On 2 February 2021 CSR notified the Department that the initial independent environmental audit, as required under condition 9 of schedule 5, commenced on 29 January 2021, within twelve months of the commencement of development. The audit team for the initial audit was approved by the Department on 15 December 2020 and was finalised on 29 March 2021. Under this condition, ongoing independent environmental audits must be commissioned every three years thereafter, with the subsequent audit to be commissioned by 24 February 2024. This ongoing independent environmental audit was commissioned and commenced on 29 February 2024, outside of the three-year period required under this condition. It is understood that CSR notified the Department of the commencement of this IEA on 7 March 2024. The proposed audit team for this audit was submitted to the Department for approval on 15 February 2024, and approved by the Department on 26 February 2024. Given this audit was not commissioned within the timeframe specified under this consent (by 24 February 2024), the project is non-compliant with this condition. However, it is noted that the audit team was submitted for approval to the Department on 15 February 2024, prior to 24 February 2024.	Resourcing to be secured ahead of time to ensure auditors are engaged prior to 24 February 2027 for the next ongoing independent environmental audit.	Nil to date.	24 December 2026	Ongoing.
IEA2-23	Schedule 5 Condition 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 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	EIS and SEE for Mod 1 are available. - Consolidated conditions of consent and EPL are available. - Management plans are available. - A complaints register is available, however this has not been updated monthly. - Minutes of CCC meetings are available. - Annual review for 2021 and 2022 are available (development commenced in 2020). The annual review for 2023 was not available at the time of this audit. - The initial independent environmental audit is available, but the applicants response to the recommendations of the audit is not available. The development is non-compliant with this condition.	CSR to review and update all documents published on the website and ensure that continuous updates are included in an environmental compliance schedule.	Website has been updated.	Monthly review.	Closed.

Non-Compliance Identification Number	Condition	Requirement	Issue sighted	Recommendation	Action Taken	Due Date	Documentation/ Status
		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.					

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. Liverpool Council is also consulted regarding traffic and transport management.

5.2 DEPARTMENT OF PLANNING, HOUSING AND INFRASTRUCTURE (DPHI)

5.2.1 Development Approvals

The consolidated State Significant approval conditions are included in *Appendix A*. Development approvals modifications are summarised below.

Table 4. 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	Submitted to DPHI	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 5. Annual Review Reporting Conditions

Element of Condition	Where Addressed in this Report
Annual Review 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;	*Section 6, Section 8*
(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;	*Section 7*
(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;	*Section 3 and Section 7*
(d) identify any trends in the monitoring data over the life of the development;	*Section 7*
(e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and	*Section 7*
(f) describe what measures will be implemented over the current financial year to improve the environmental performance of the development.	*Section 14*

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 6*. 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 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, and all reporting requirements against the ML have been undertaken via the Regulator Portal.

Table 6. 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. Point 5 additionally 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 2025) 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 7. 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 Dam	10AL104628 10AL104629	26257 25987	6.50 152.50

6 Operations During Report Period

6.1 EXPLORATION

No exploration activities were undertaken during the reporting period.

6.2 CONSTRUCTION

No construction was undertaken during the reporting period.

6.3 HOURS OF OPERATION

The site operates under the consented hours as detailed in Schedule 3 condition 1 as shown below. A number of truck movements outside of the consented hours were recorded during the reporting period. 156 out of hours movements were recorded on weekdays and 41 out of hours movements on Saturdays. Review and management of the truck sensor counting system will be undertaken in the next Annual Review period due to a number of additional counts outside of operational hours that are expected to be errors.

Table 8. Hours of Operation

Activity	Operating Hours	Compliance
Quarrying Operations	6am to 6pm Monday to Friday 6am to 1pm Saturday No activities Sundays or Public Holidays	Compliant
Deliveries **Dispatch of finished bricks**	6am to 6pm Monday to Friday 6am to 1pm Saturday No activities Sundays or Public Holidays	Non-Compliant
Brick making operations	24 hours, 7 days	Compliant
Construction Activities	7am to 6pm Monday to Friday 8am to 1pm Saturday No activities Sundays or Public Holidays	Compliant

6.4 MINING OPERATIONS

65,248 tonnes of raw material was mined during the report period from the north and south-east of the existing extraction area (see *Figure Three*). Extraction will expand into the south east faces. Previously imported clay and shale was stockpiled onto the mining bench in the west. 100,334 tonnes of raw material for brickmaking has been imported to the site during the reporting period.

The Mining Lease (ML) 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.

Schedule 2 Condition 18 of the consent requires the annual quarry production data as submitted to DRE (Now Department Regional NSW – Mining, Exploration Geoscience (MEG)) to be included in the Annual Review, see *Appendix G*.

6.5 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*.

Table 9. Production During the Report Period

Item	Actual	Production Limits	Compliance
Extract clay/shale	65,248 T	200,000 T	Compliant
Produce Bricks	172,637 T	263,500 T	Compliant
Receive raw brick making materials	100,334 T	321,000 T	Compliant
Carry out quarrying operations below 46m AHD	67 m AHD	46 m AHD	Compliant

6.6 TRANSPORTATION AND TRAFFIC MANAGEMENT

The Traffic Management Plan was approved on 11/5/2022.

Table 10. Transportation During the Report Period

Item	Period	Actual	Transportation Limits	Compliance
Transport Bricks	1/7/2024 to 30/6/2025	170,355 T	263,500 T	Compliant
Receive or dispatch Trucks	Max per day during year	05/11/2024	92 trucks per day	Non-Compliant
Receive or dispatch Trucks	Max per hour during year	Manual counts ensure compliance	18 trucks per hour	Non-Compliant

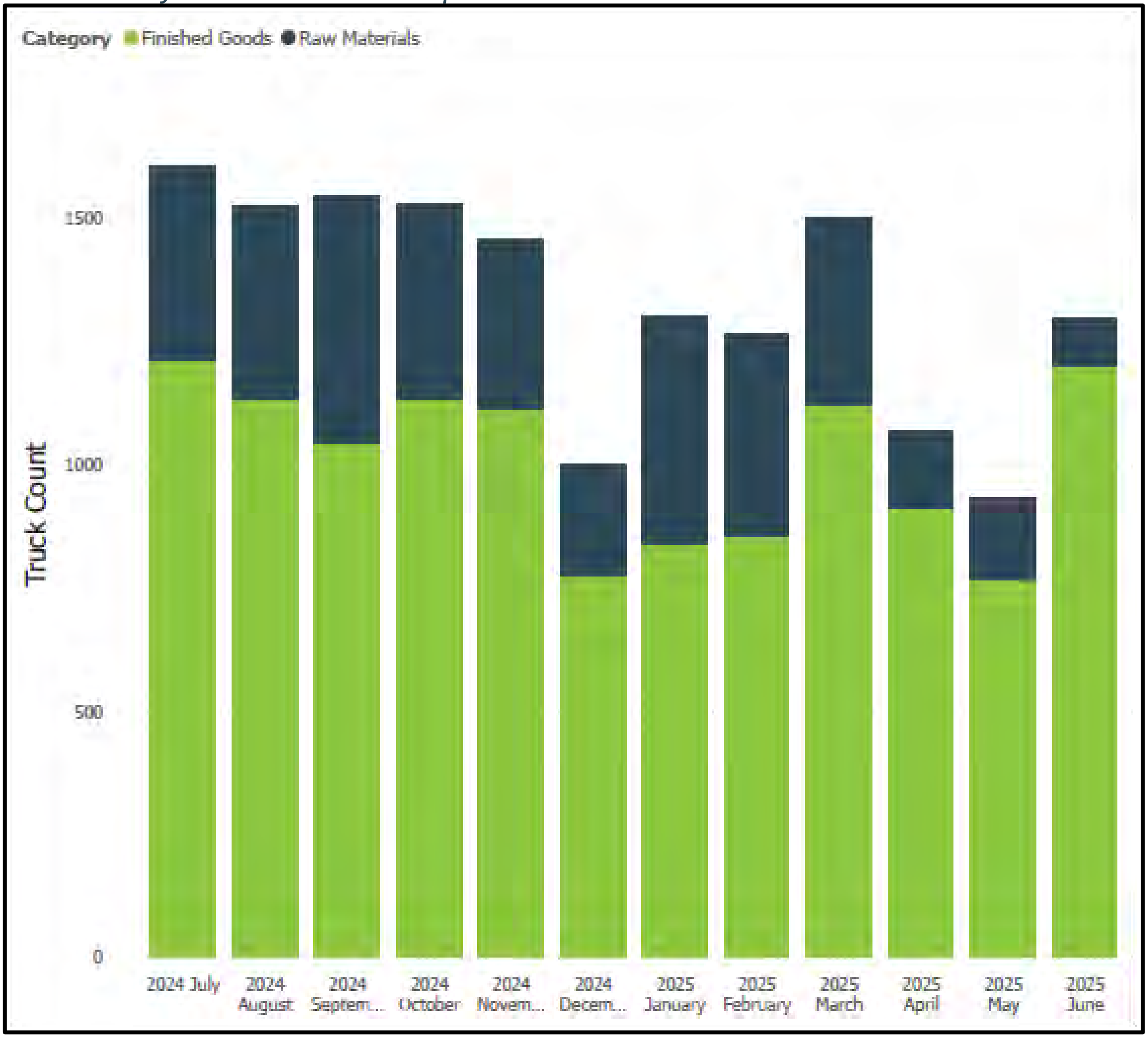
Table 11. Max Truck Count per Hour

Date / Approximate Time	Truck Number per Hour	Action
30/10/2024 08:00	19	Between October 2024 and April 2025 the site gate, sensor and counter each had issues. The company for the gate has since changed and issues fixed but will be closely monitored in the next annual reporting period.
04/11/2024 10:00	19	
06/12/2024 10:00	19	

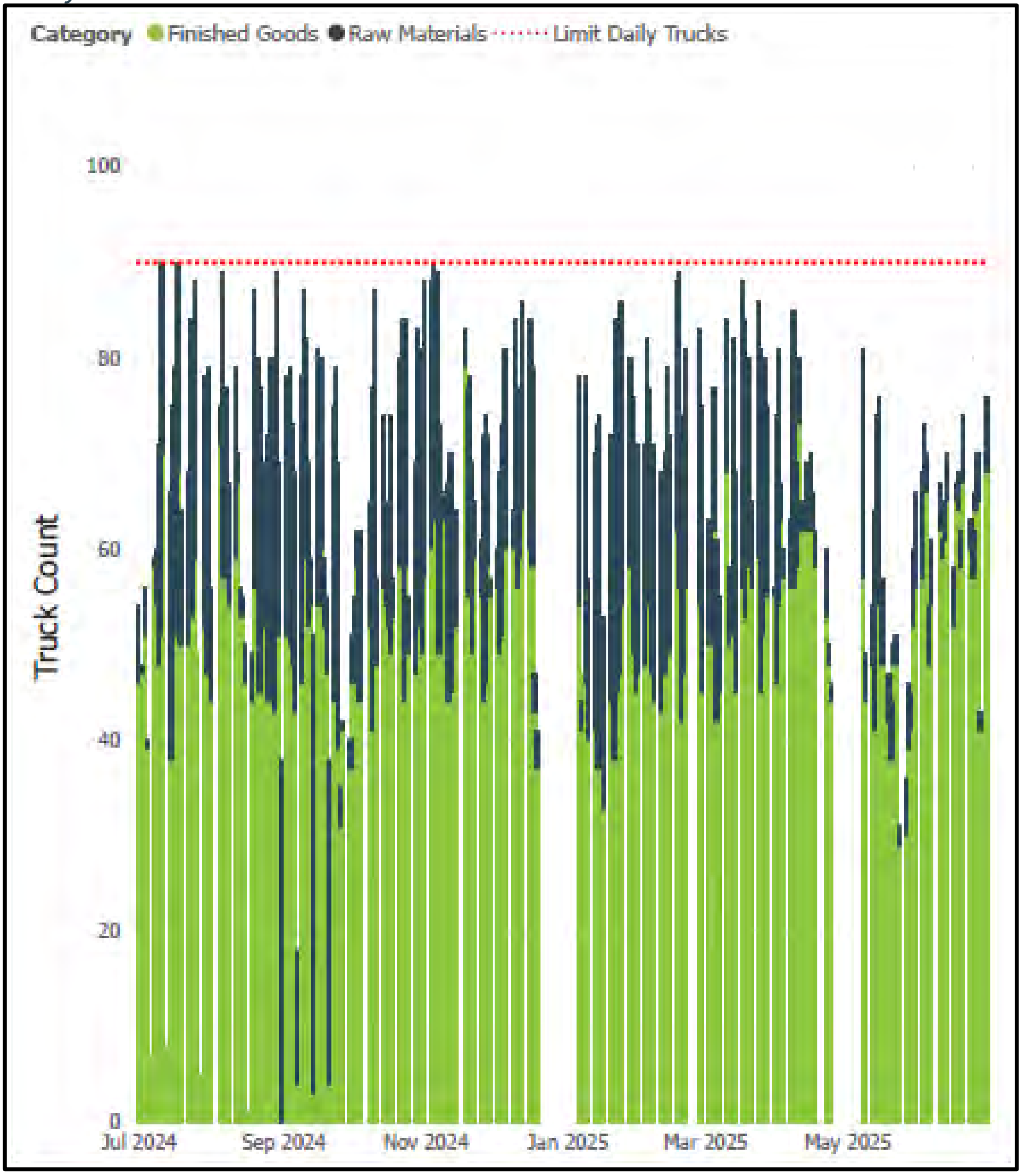
Table 12. Max Truck Count per Day

Date	Truck Number per Day	Action
05/11/2024	92	When count reached 90 the gate automatically closed and the 91st and 92nd trucks were not loaded – directed to exit gate

Graph 1. Monthly Truck Counts for Report Period



Graph 2. Daily Truck Counts Trends



* Truck counts do not include *"drive throughs" on 05/11/2024.*

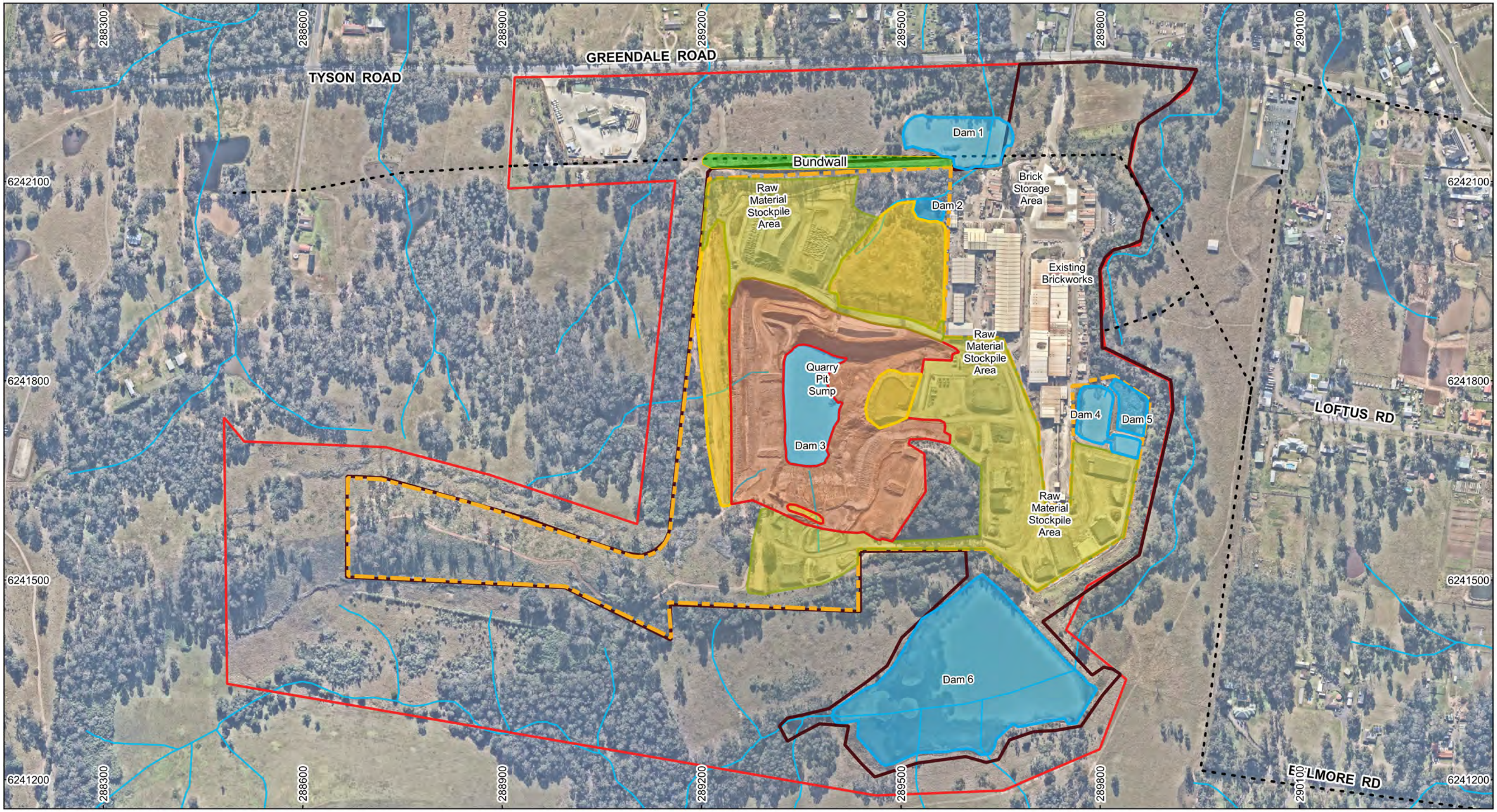
Trucks per hour are monitored manually, as the automatic counter frequently produced errors.

Plan of:	Annual Review for Bringelly Clay/Shale Mine & Brickworks Year Ending 30/06/2025 - Site Operations During Report Period	Location:	Bringelly Clay Mine, off Greendale Road, Bringelly, NSW	Source:	nearmap - Imagery Dated 22/06/2025 MGA Zone 56, NSW Government Spatial Services, July 2019 Survey, Accessed Through ELVIS & Property Boundary from NSW Clip & Ship	Plan By:	SK/JD
Figure:	THREE	Council:	Camden Council	Survey:	GDA2020 MGA Zone 56, NSW Government Spatial Services, July 2019 Survey, Accessed Through ELVIS & Mulgoa's June 2025 Survey & Property boundary from NSW Clip & Ship	Project Manager:	LT
Version/ Date:	V0 03/09/2025	Tenure:	ML 1731	Projection:	GDA2020 Geoscience Australia Lambert EPSG:7856		
Our Ref:	12741_BR_AR2025_Q003_V0_F3	Client:	PGH Bricks & Pavers Pty Ltd	Contour Interval:	Not Applicable		

0 100 200 m

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.



Legend

Feature/Domain
- Cadastral Boundary
- Project Approval Boundary
- River/Major Drainage Line
- Electricity Transmission Line
- Bundwall

Mining Tenement
- Authority Boundary (ML 1731)
- Area of Disturbance

Disturbance
- Active Mining Area (Open Cut Void)
- Infrastructure Area
- Overburden Emplacement Area
- Water Management Area

Plan of:	**Annual Review for Bringelly Clay/Shale Mine & Brickworks Year Ending 30/06/2025 - Operations Planned for Next Report Period**	**Location:**	Bringelly Clay Mine, off Greendale Road, Bringelly, NSW	**Source:**	nearmap - Imagery Dated 22/06/2025 MGA Zone 56, NSW Government Spatial Services, July 2019 Survey, Accessed Through ELVIS & Property Boundary from NSW Clip & Ship	**Plan By:**	SK/JD
Figure:	**FOUR**	**Council:**	Camden Council	**Survey:**	GDA2020 MGA Zone 56, NSW Government Spatial Services, July 2019 Survey, Accessed Through ELVIS & Mulgoa's June 2025 Survey & Property boundary from NSW Clip & Ship	**Project Manager:**	LT
Version/ Date:	V0 03/09/2025	**Tenure:**	ML 1731	**Projection:**	GDA2020 Geoscience Australia Lambert EPSG:7856		
Our Ref:	12741_BR_AR2025_Q004_V0_F4	**Client:**	PGH Bricks & Pavers Pty Ltd	**Contour Interval:**	1m		

N

0 100 200 m

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.

Legend

Feature/Domain

Cadastral Boundary

Project Approval Boundary

Electricity Transmission Line

Water Management Area

River/Major Drainage Line

Forecast Disturbance

Mining Tenement

Authority Boundary (ML 1731)

6.7 CONSTRUCTION WASTE

No construction was undertaken during the AR reporting period.

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

6.8 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 reused for road repairs on site, or removed by licensed contractors for recycling. Green waste bricks are recycled through the factory.

6.9 DECOMMISSIONING AND DEMOLITION ACTIVITIES

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

6.10 TEMPORARY STABILISATION

Areas in the west of the pit where water was flowing in from the next property and causing erosion have been repaired and remain stabilised, with vegetation naturally regrowing.

To assist in stability and safety, layered stockpiles are kept to a height limit of 4.5 metres.

6.11 WEED MANAGEMENT

No weed management activities were undertaken during the report period.

6.12 PROGRESSIVE REHABILITATION AND COMPLETION

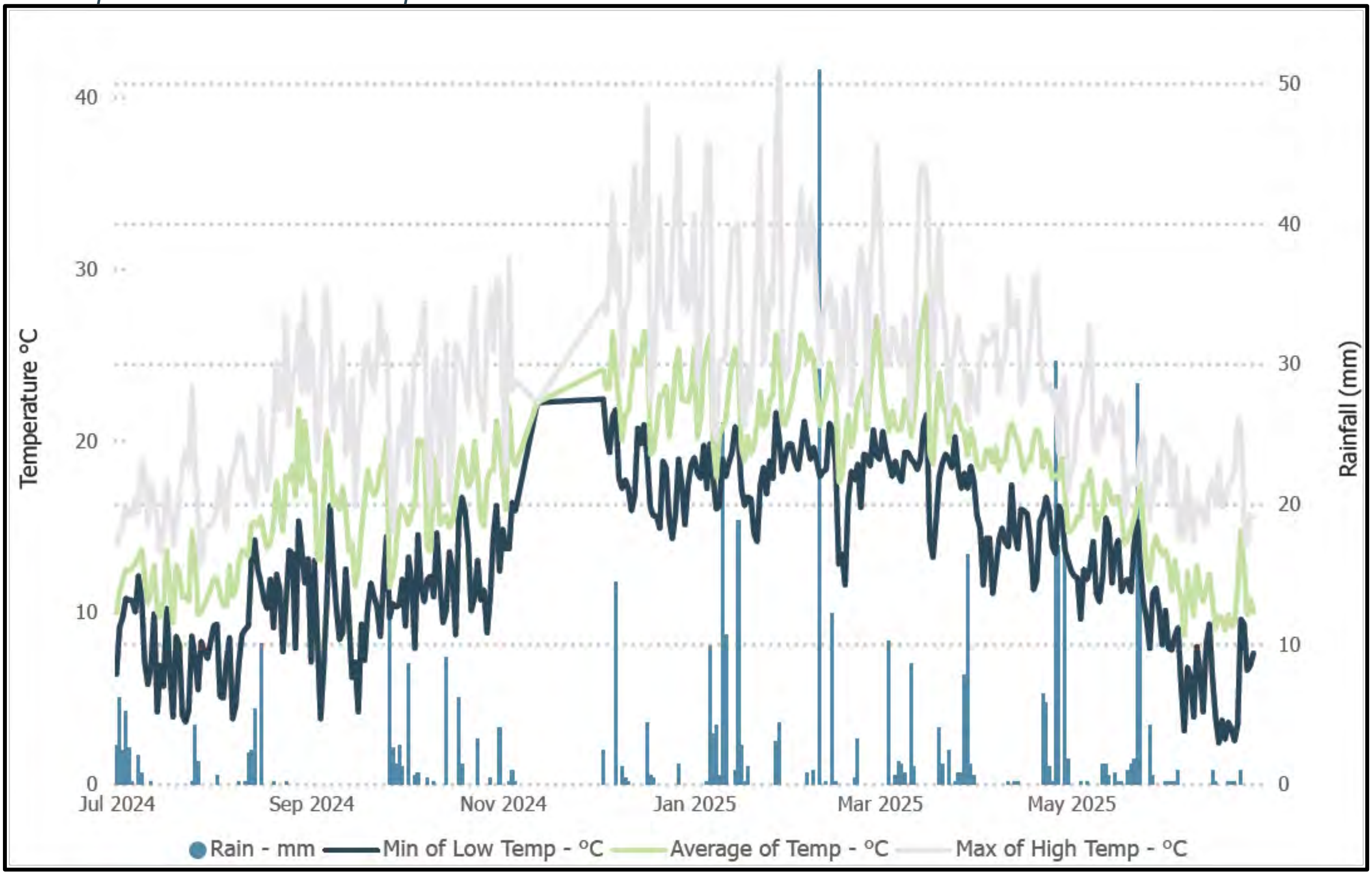
The bund wall to the west has been repaired, and a northern bund wall built to reduce noise and visual impacts on the northern neighbours. Those areas have been spread with topsoil and mulched, but not yet vegetated. The consent requires that a vegetation screen be established as soon as practicable after construction. A quote has been received to spray mulch the northern bundwall, and it is proposed to commence once strike rate conditions are ideal.

7 Environmental Monitoring and Management

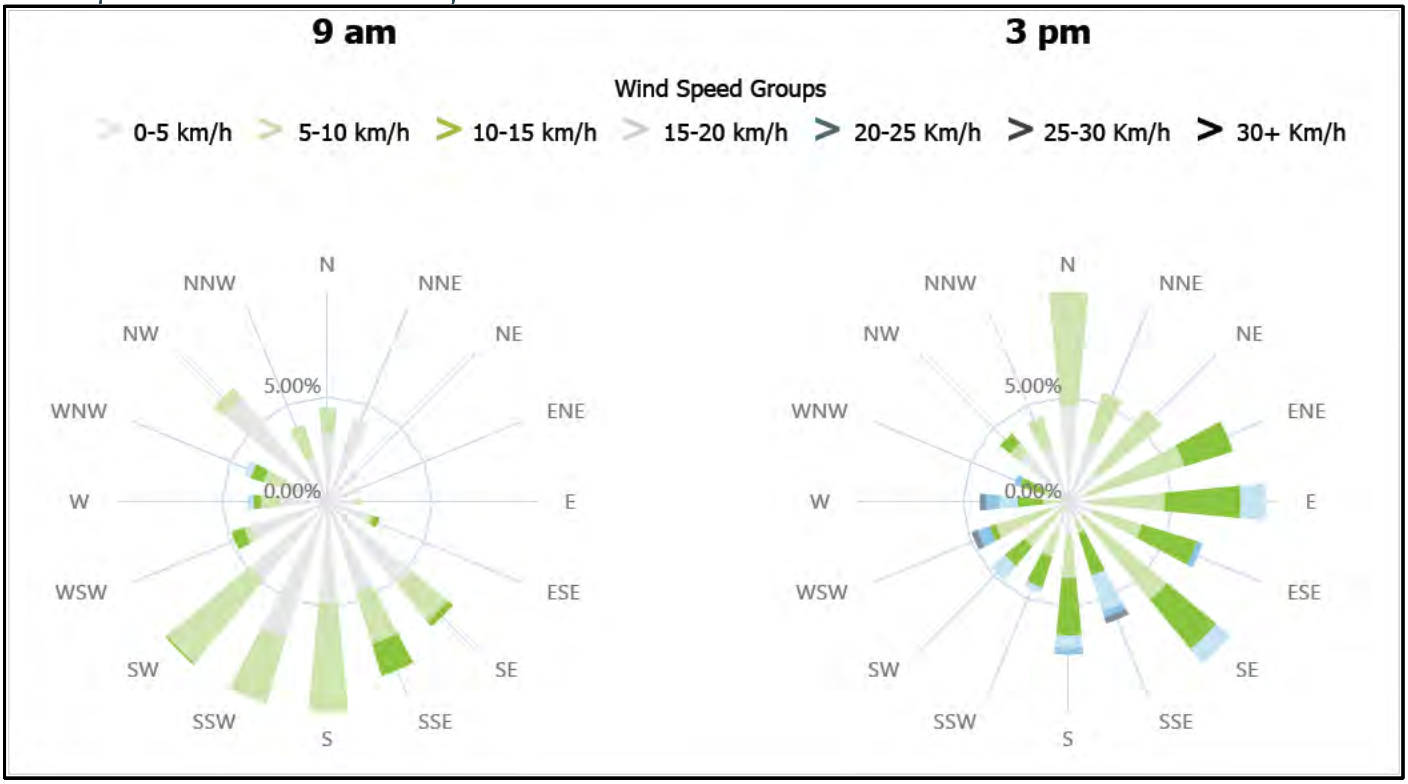
7.1 CLIMATE SUMMARY

A weather station was installed in early 2017; data for the reporting period is shown below. Power to the unit was disconnected for a period in between 05/11/2024 – 03/12/2024 due to a malfunction.

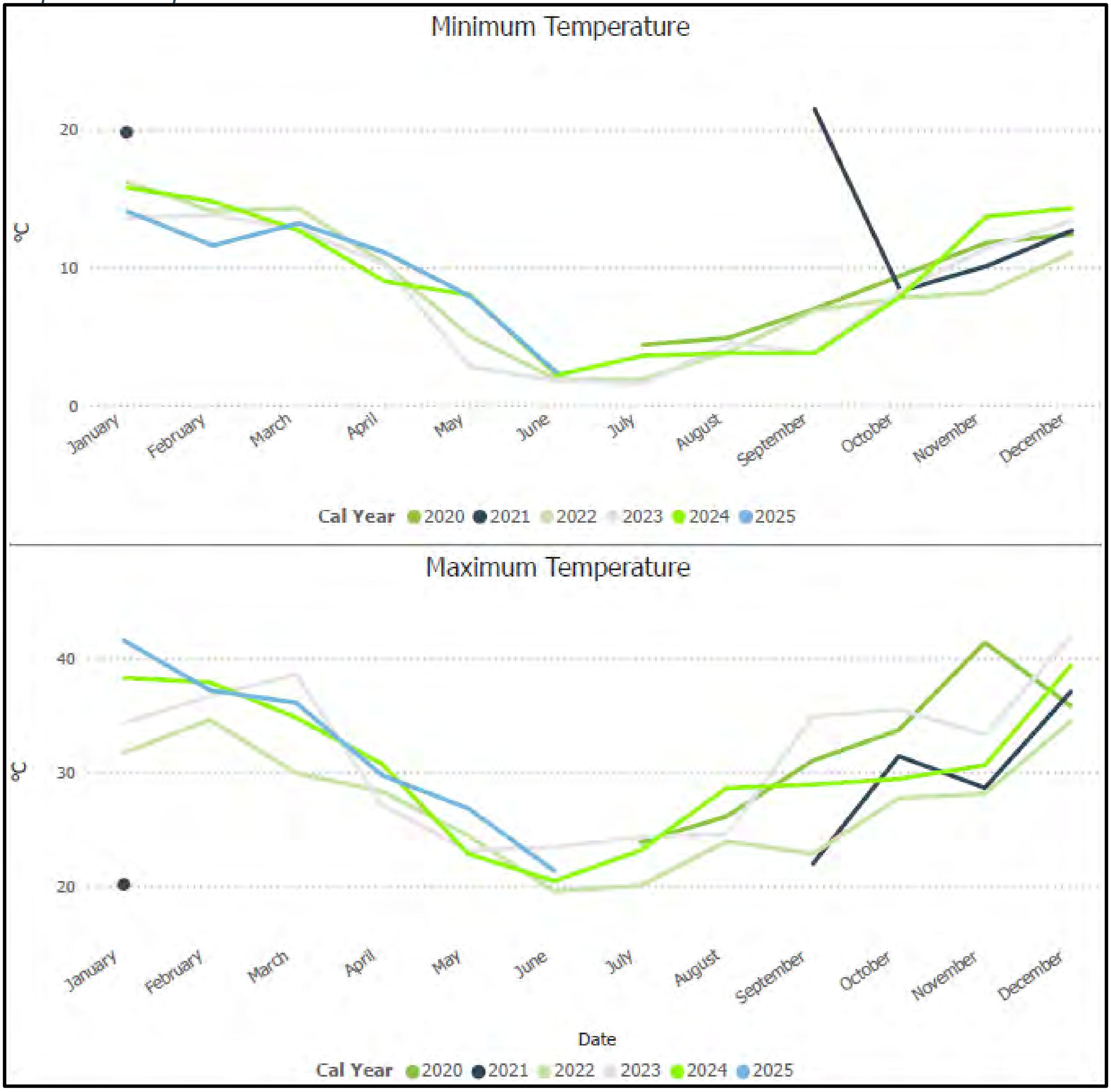
Graph 3. Weather This Report Period



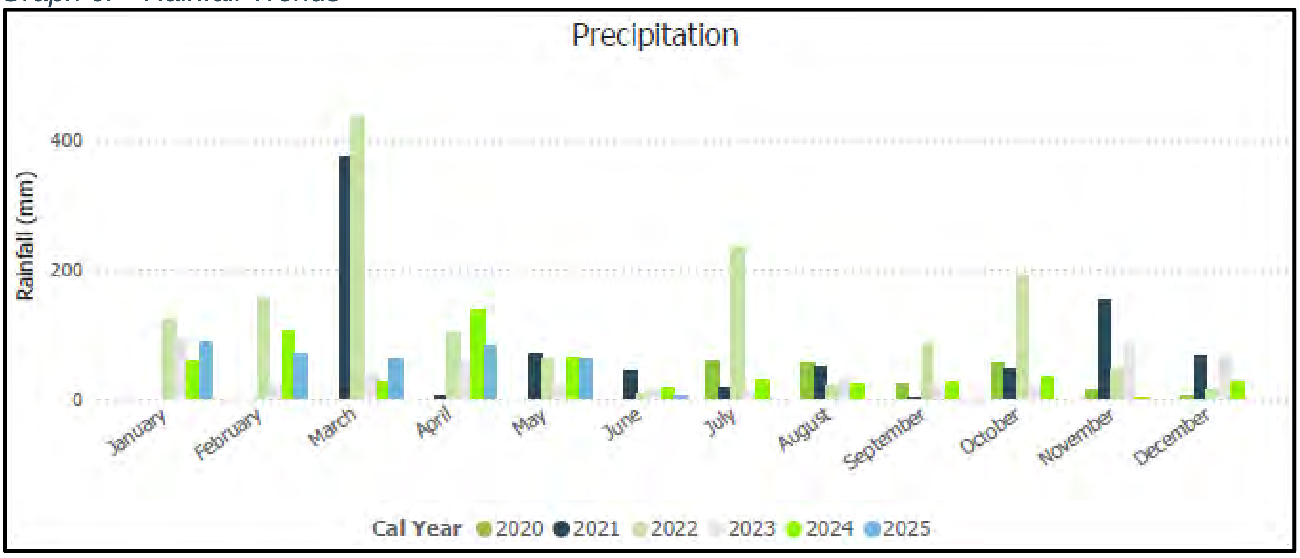
Graph 4. Wind Roses this Report Period



Graph 5. Temperature Trends



Graph 6. Rainfall Trends



7.2 AIR QUALITY

7.2.1 Monitoring Data

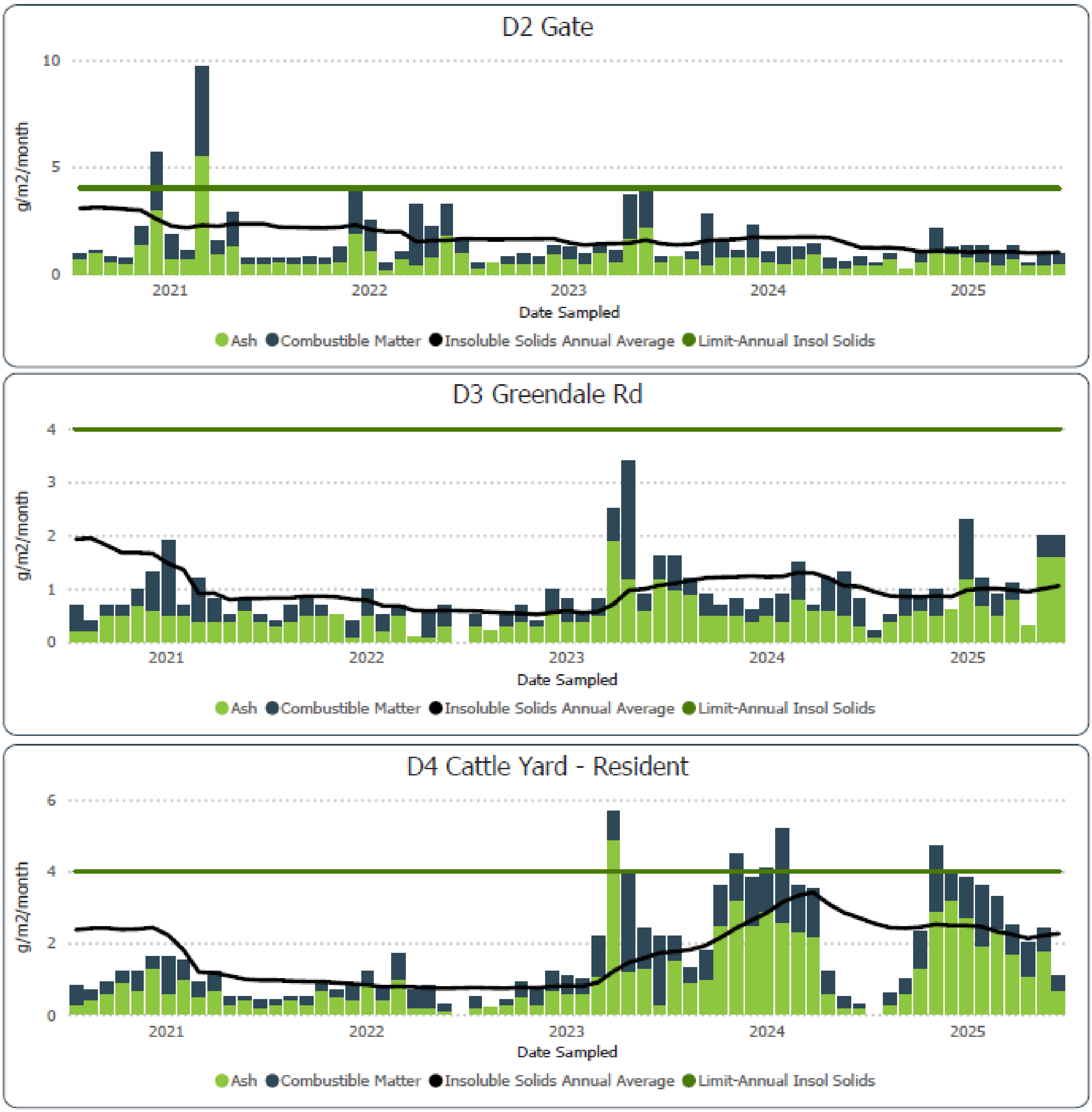
7.2.1.1 Depositional Dust Gauges

Air-borne dust is monitored using static dust gauges. Results for three dust gauges (locations shown on *Figure Two*.) during the reporting period are included below.

Table 13. Depositional Dust Results this Report Period

Site	Annual Average Insoluble Solids $g/m^2/month$	Max Increase over Background	Max Total Limit
D2 Gate	1.0	2	4
D3 Greendale Rd	1.1	2	4
D4 Cattle Yard	2.3	2	4

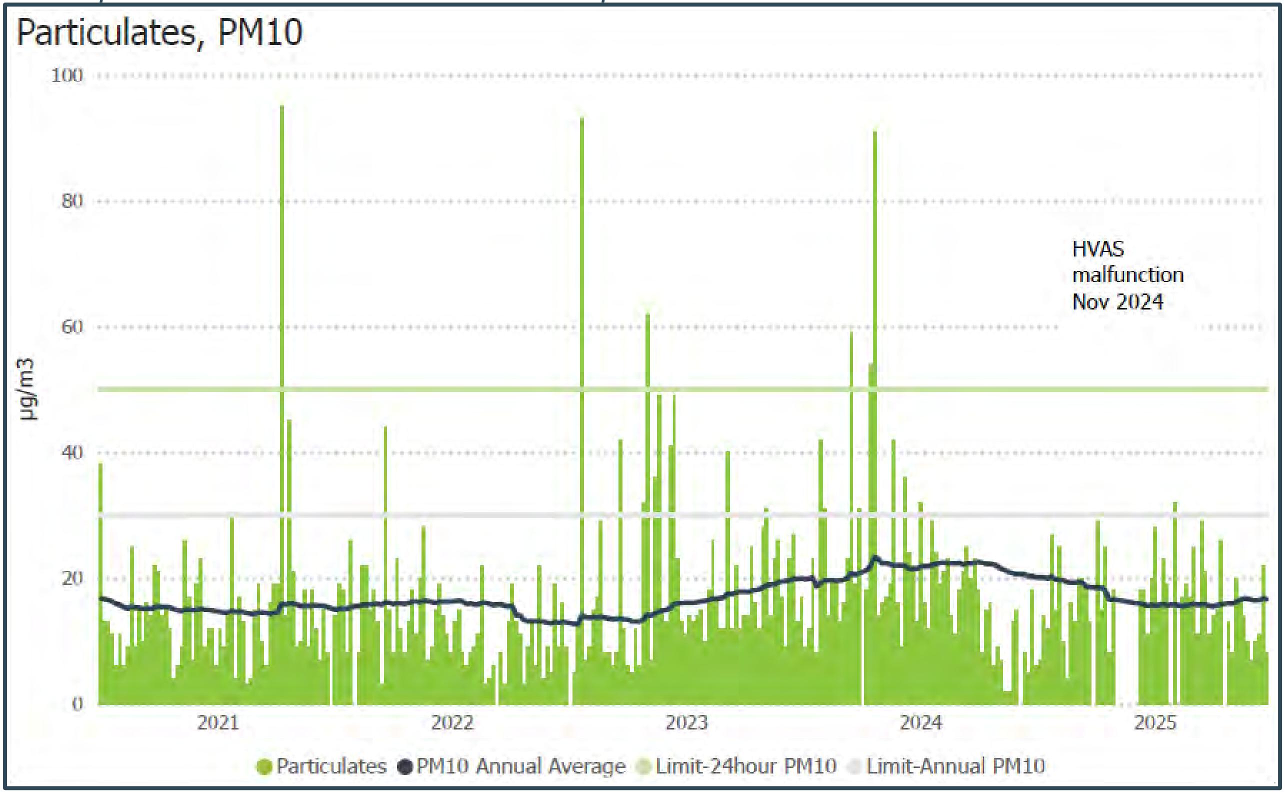
Graph 7. Insoluble Solids Trends



7.2.1.2 High Volume Air Sampling

One high volume air sampler (HVAS) has also been installed 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. Power to the unit was disconnected for a period in between 05/11/2024 – 03/12/2024 due to a malfunction.

Graph 8. Particulate Matter Less than 10µm Trends



Only PM10 measurements have been undertaken to date.

Table 14. Particulate Matter Results for Report Period

Pollutant	Averaging Period	Actual Result	Limit
Total Suspended Particulates (TSP) (ug/m³)	Annual	41.25 (Calculated from PM10 = 40% of TSP)	90
Particulate Matter <10 um (PM10) (ug/m³)	Annual	16.5	30
Particulate Matter <10 um (PM10) (ug/m³)	24 hour	32	50

7.2.1.3 Stack Emissions

Emissions testing of the kiln stack was conducted during the reporting period on the 19/12/2024. The results are summarised below.

Table 15. Stack Emissions Results in the Report Period

Analyte	Result Reported	EPL Limit
Hydrogen Flouride (mg/m3)	5.7	50
Nitrogen Oxides (mg/m3)	84	2000
Total Solid Particles (mg/m3)	7.6	100

Graph 9. Stack Monitoring Trends

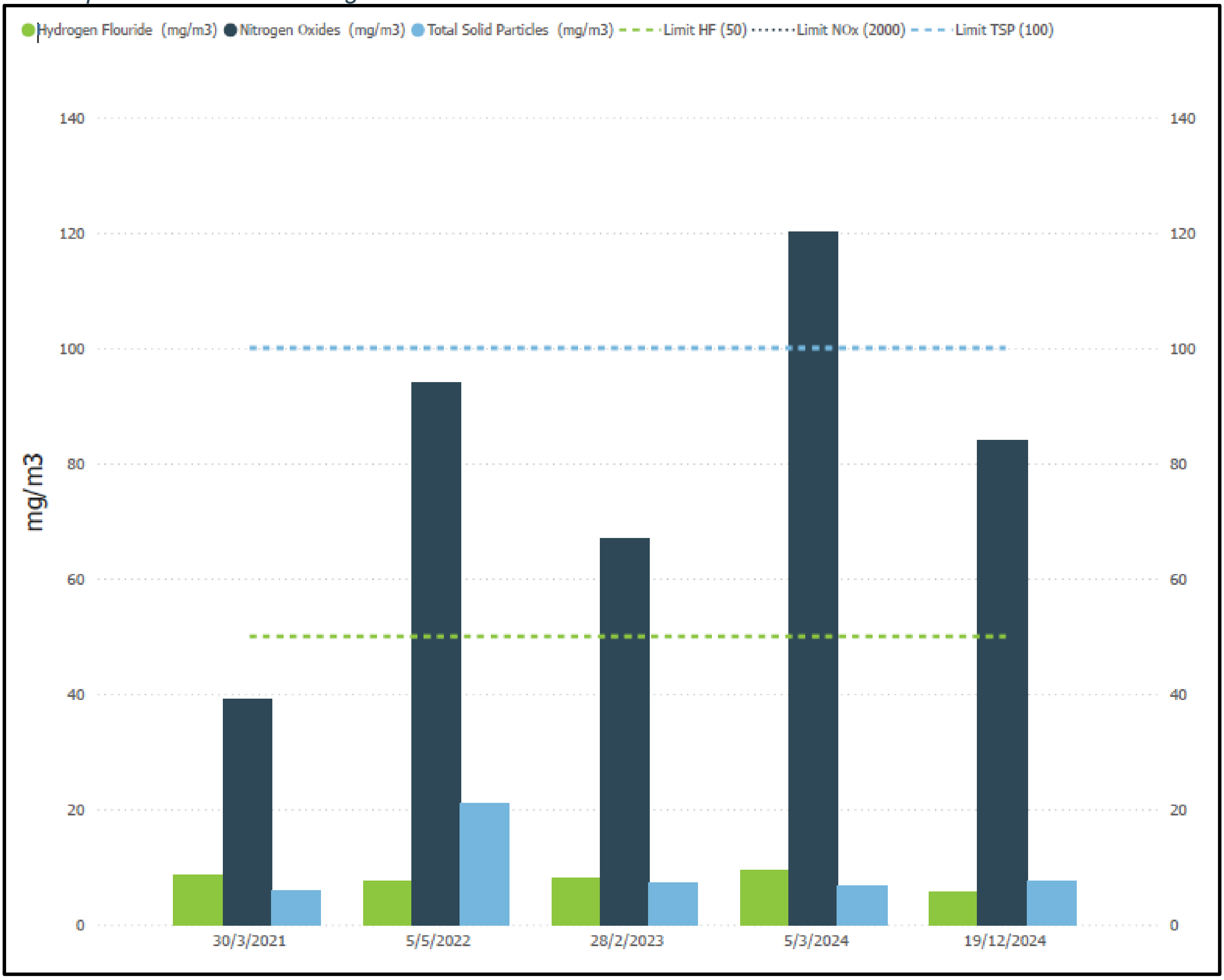


Table 16. Assessable Load for Stack Emissions From 1/6/2024 to 31/5/2025

Assessable Pollutant	Load (kg)*	Load Limit from EPL 1808 (kg)
Sulphur Oxides	5,782	186,500
Nitrogen Oxides	39,946	90,300
Coarse Particulates	273	8,400
Fine Particulates	3,364	33,300
Fluorides	2,733	11,700
Nitrogen Oxides - Summer	9,850	No limit

*Sourced from the EPL website.

Stack emissions criteria are reproduced below.

Table 17. Stack Emissions Criteria for Residences

Table 6: Long and Short-Term Stack Emissions

Pollutant	Averaging period	[d] Criterion
Sulphur Dioxide	10-minute	712 $\mu g/m^3$
	1-Hour	570 $\mu g/m^3$
	24-Hour	228 $\mu g/m^3$
	Annual	60 $\mu g/m^3$
Nitrogen Dioxide	1-Hour	246 $\mu g/m^3$
	Annual	62 $\mu g/m^3$
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.

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

The Particulate Matter less than 10 micron did not exceed the 24 hour average limit during the reporting period. There were no non-compliances. 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

The results are consistent with the background pollutant concentrations predicted in the Hyder Consulting EIS.

Table 18. Hyder Consulting EIS Background Air Quality Data Comparison

Air Pollutant	Averaging Period	Background Concentration From EIS ($\mu g/m^3$)	Actual Result from Reporting Period
PM_{10}	Annual	16.0	16.5
	24-hour (maximum)	83.8	32
NO_2	Annual	9.7	Not applicable
	Monthly (maximum)	41	Not applicable
SO_2	Annual	3.5	Not applicable
	Monthly (maximum)	4.5	Not applicable
TSP	Annual	40.0 (estimate value)	Not applicable 41.25(estimate based on the PM_{10} being 40% of the TSP annual average)
Dust Deposition	Annual	1.8 g/m^2/month	D2- 1.0 g/m^2/month D3- 1.1 g/m^2/month D4- 2.3 g/m^2/month

Note: Ambient monitoring of NO_2 and SO_2 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 relatively stable annual average for the reporting period. All annual averages are below the required criteria. The Cattle Yard site trended downwards following the elevated valued from the previous reporting period.

HVAS results are steady, with no increasing trend 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

Reviews of power supply to be regularly conducted by Mulgoa.

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 air-borne 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. All site monitoring equipment is maintained and calibrated in accordance with manufacturer's instructions.

The EPL limits for discharged water are outlined below.

Table 19.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

*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.

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

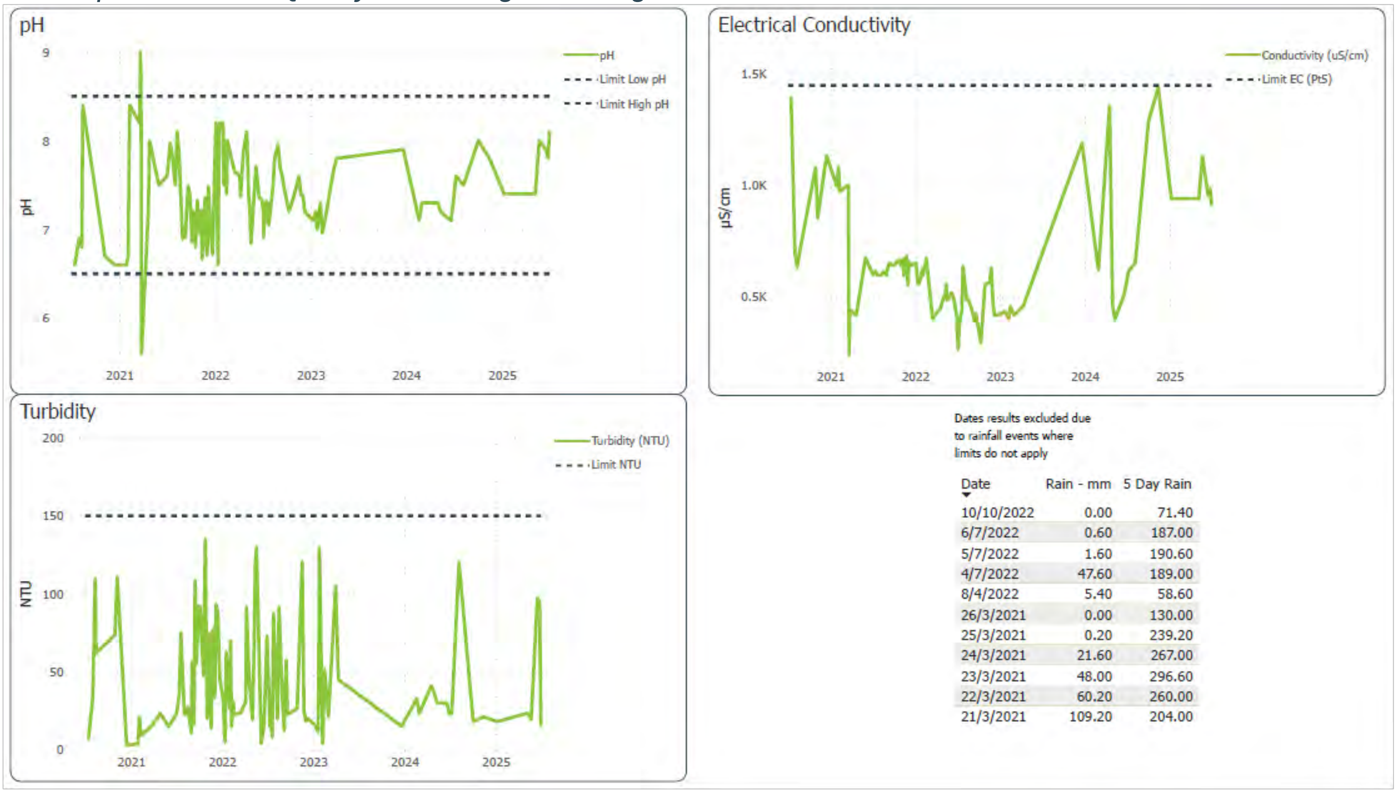


Table 20.Summary of Point 5 Discharged Results During Report Period

Analyte	Minimum	Average	Maximum	EPL Limit
pH	7.1	7.47	8	6.5 – 8.5
Electrical Conductivity (uS/cm)	333	774.23	1440	1450
Turbidity (NTU)	3.90	28.33	120	150
Oil & Grease (mg/L)			<10	10

7.3.1.2 Non-Compliances

There were no surface water 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 depending on whether the sample has been treated or not. Oil and Grease has not been detected during the report period.

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 visually during the reporting period.

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 is performing adequately.

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. GW3 groundwater monitoring bore, located in the stockpile area, was damaged some years ago and cannot be sampled.

In summary:

- GW1 and GW2 water levels are fairly stable, however, GW4 is frequently at a low standing water level, with insufficient water volume available to pump and sample. This report period has shown an influx of fresh water from the high rainfall in April, confirming that this bore responds to a perched aquifer or surface water inflow.
- The pH's of all GW's are fairly neutral, remaining between the 6.5 to 7.5 range for the report period;
- The conductivity, dissolved solids and chloride of GW1 is consistently higher than GW2 and both respond similarly over time;
- GW4 shows a minor decrease in pH and conductivity due to the influence of rainfall;
- Anions and Cations for GW1 and GW2 are fairly consistent and similar to each other, with GW4 showing the influence of fresh water;
- Common dissolved metals show no significant trends for all bores;
- Hydrocarbons were detected at very low levels in GW4 in one quarter, and not detected for the remainder of this report period; and
- Nutrients within GW1 and GW2 are similar to each other and GW4 showed a large spike in NOx in the last quarter, possibly an influence from surface water.

Results are presented in the tables and graphs below. Note, only metals where positive results have been detected are graphed, levels presented as "0" are actually less than detectable.

Table 21.Groundwater Results

Groundwater Summary for Financial Year Period

2025

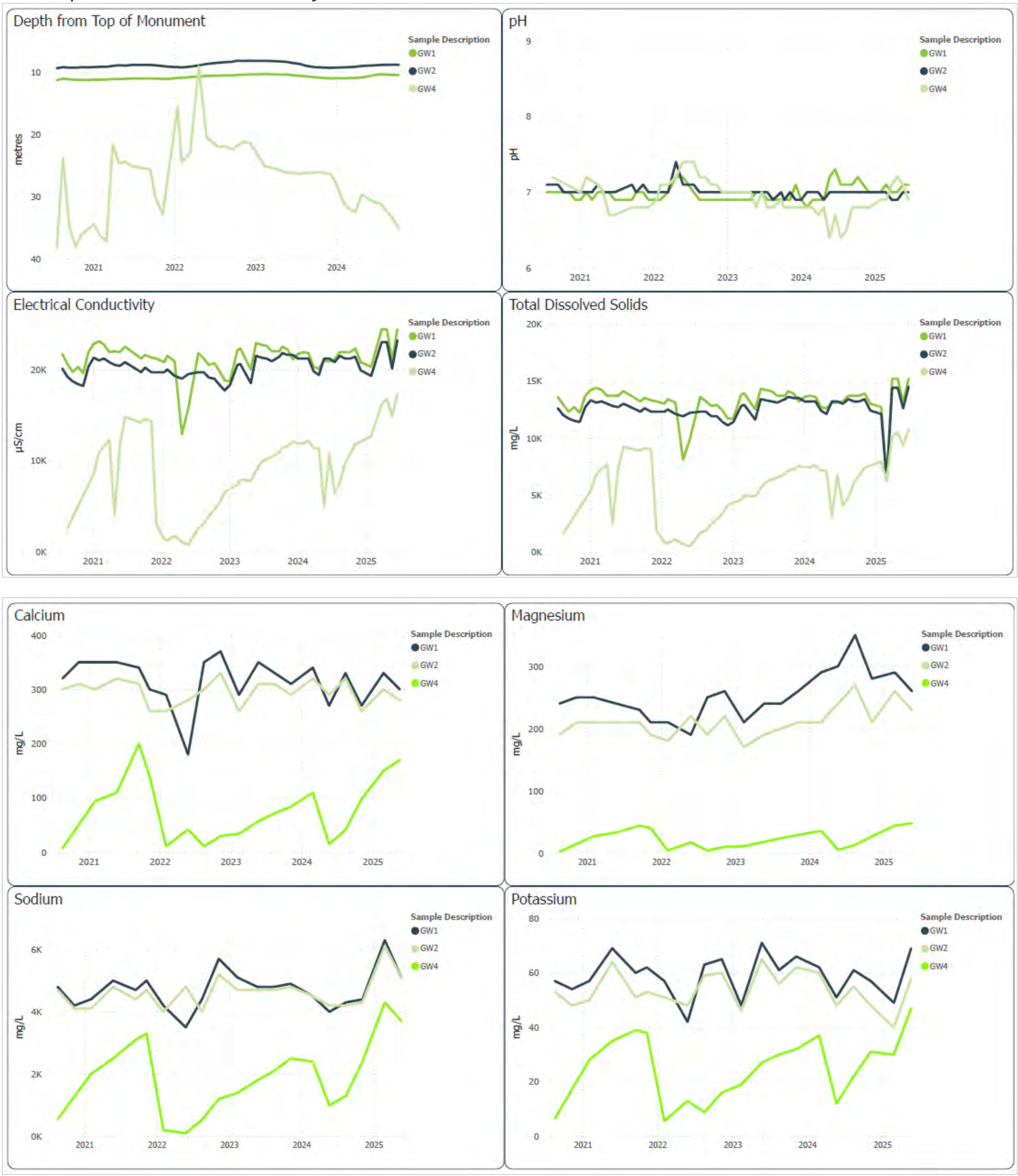
Sample Description	Min of pH	Average of pH	Max of pH	Min of Electrical Conductivity	Average of Electrical Conductivity	Max of Electrical Conductivity	Min of TDS	Average of TDS	Max of TDS
GW1	7.0	7.1	7.2	20,300	22,218	24,400	6,250	13,238	15,200
GW2	6.9	7.0	7.0	19,300	21,327	23,200	6,250	12,738	14,500
GW4	6.4	6.9	7.2	6,490	12,400	17,300	4,060	7,621	10,800
Total	**6.4**	**7.0**	**7.2**	**6,490**	**18,648**	**24,400**	**4,060**	**11,199**	**15,200**

Sample Description	Min of Chloride, Cl	Average of Chloride, Cl	Max of Chloride, Cl	Min of Sulphate, SO4	Average of Sulphate, SO4	Max of Sulphate, SO4	Min of Total Alkalinity	Average of Total Alkalinity	Max of Total Alkalinity
GW1	7,700	8,050	8,400	0	2	4	450	480	520
GW2	7,500	7,650	7,900	0	1	2	470	483	490
GW4	2,300	4,250	5,300	0	5	14	230	310	360
Total	**2,300**	**6,650**	**8,400**	**0**	**2**	**14**	**230**	**424**	**520**

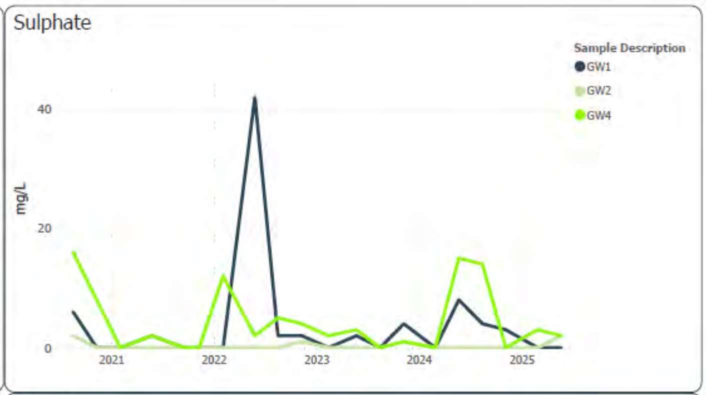
Sample Description	Min of Calcium-Dissolved	Average of Calcium-Dissolved	Max of Calcium-Dissolved	Min of Magnesium-Dissolved	Average of Magnesium-Dissolved	Max of Magnesium-Dissolved	Min of Potassium-Dissolved	Average of Potassium-Dissolved	Max of Potassium-Dissolved	Min of Sodium-Dissolved	Average of Sodium-Dissolved	Max of Sodium-Dissolved
GW1	270	308	330	260	295	350	49	59	69	4,300	5,025	6,300
GW2	260	290	320	210	243	270	40	50	58	4,200	4,925	6,100
GW4	41	115	170	13	33	48	22	33	47	1,300	2,925	4,300
Total	**41**	**237**	**330**	**13**	**190**	**350**	**22**	**47**	**69**	**1,300**	**4,292**	**6,300**

Sample Description	Min of Ammonia as N	Average of Ammonia as N	Max of Ammonia as N	Min of Total Nitrogen	Average of Total Nitrogen	Max of Total Nitrogen	Min of Phosphate as P	Average of Phosphate as P	Max of Phosphate as P	Min of Total Phosphorus	Average of Total Phosphorus	Max of Total Phosphorus
GW4	2.40	5.50	7.10	6.80	9.75	15.00	0.00	0.03	0.10	0.20	0.36	0.54
GW1	7.60	9.30	11.00	7.60	9.83	13.00	0.00	0.05	0.08	0.00	0.06	0.10
GW2	5.80	6.88	8.10	6.60	8.03	9.80	0.01	0.03	0.05	0.00	0.01	0.05
Total	**2.40**	**7.23**	**11.00**	**6.60**	**9.20**	**15.00**	**0.00**	**0.04**	**0.10**	**0.00**	**0.14**	**0.54**

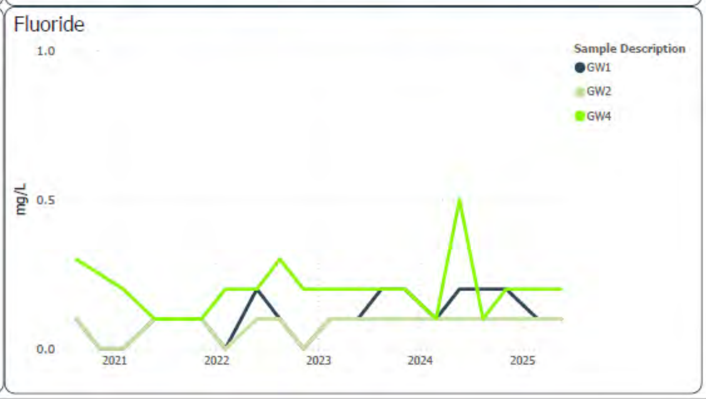
Graph 11. Groundwater Analyte Trends

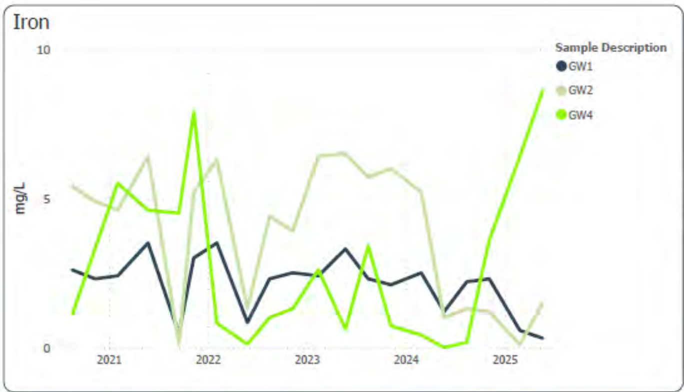


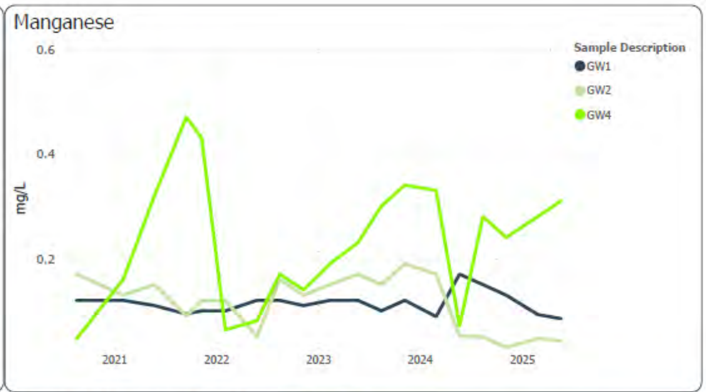

Chloride
10K
5K
0K
mg/L
2021
2022
2023
2024
2025
Sample Description
GW1
GW2
GW4

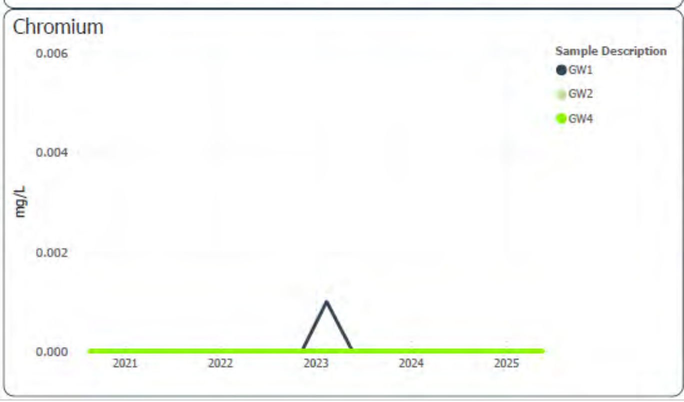

Sulphate
40
20
0
mg/L
2021
2022
2023
2024
2025
Sample Description
GW1
GW2
GW4

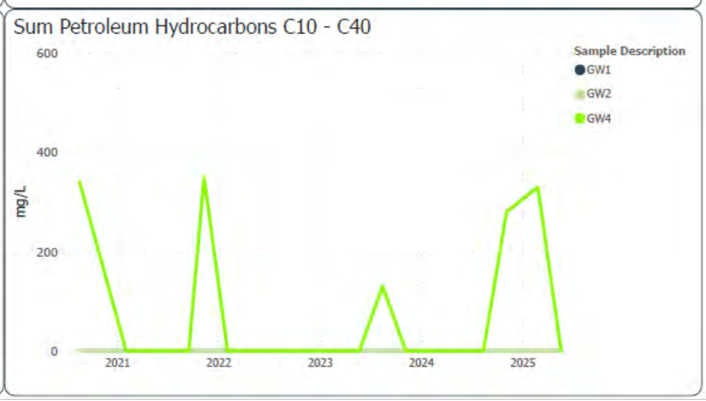

Total Alkalinity
600
400
200
mg/L
2021
2022
2023
2024
2025
Sample Description
GW1
GW2
GW4


Fluoride
1.0
0.5
0.0
mg/L
2021
2022
2023
2024
2025
Sample Description
GW1
GW2
GW4

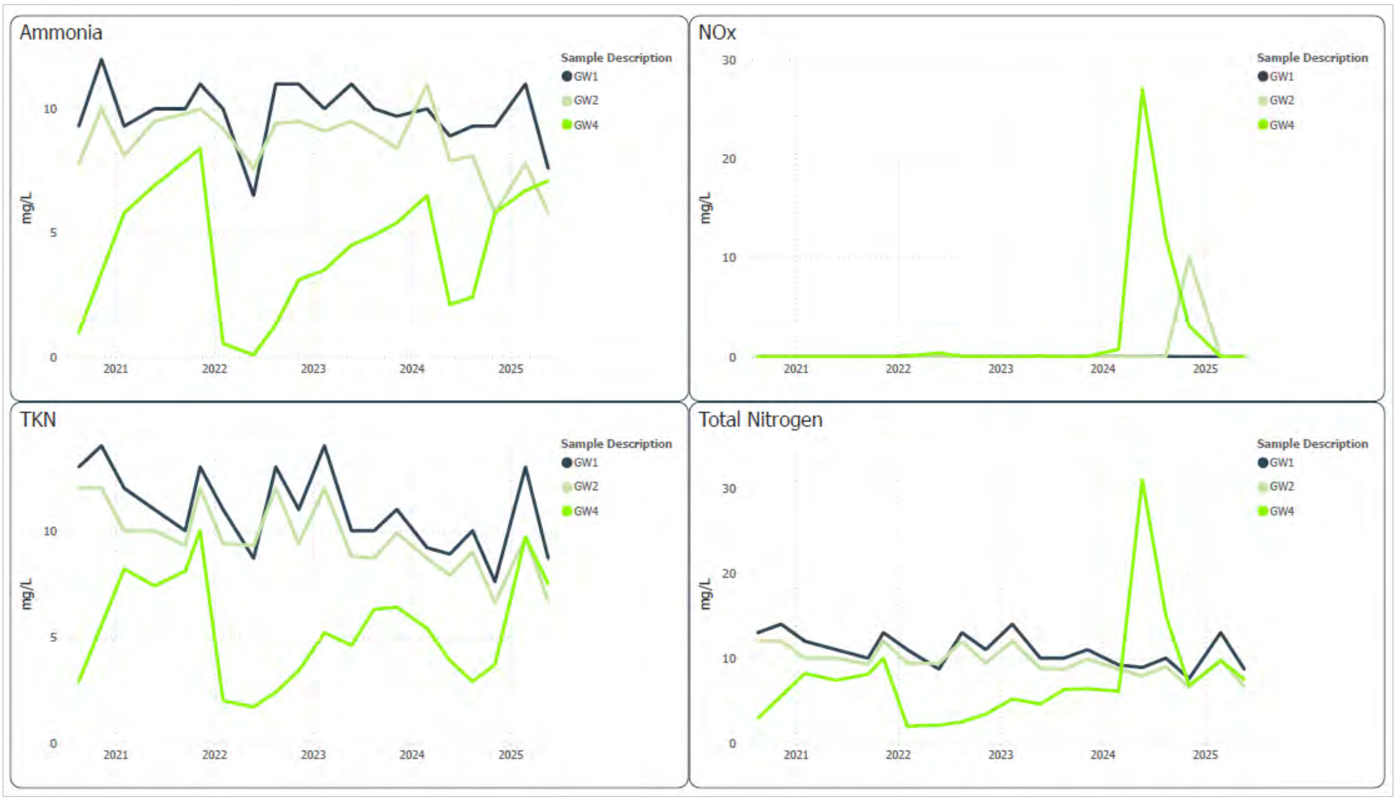

Iron
10
5
0
mg/L
2021
2022
2023
2024
2025
Sample Description
GW1
GW2
GW4

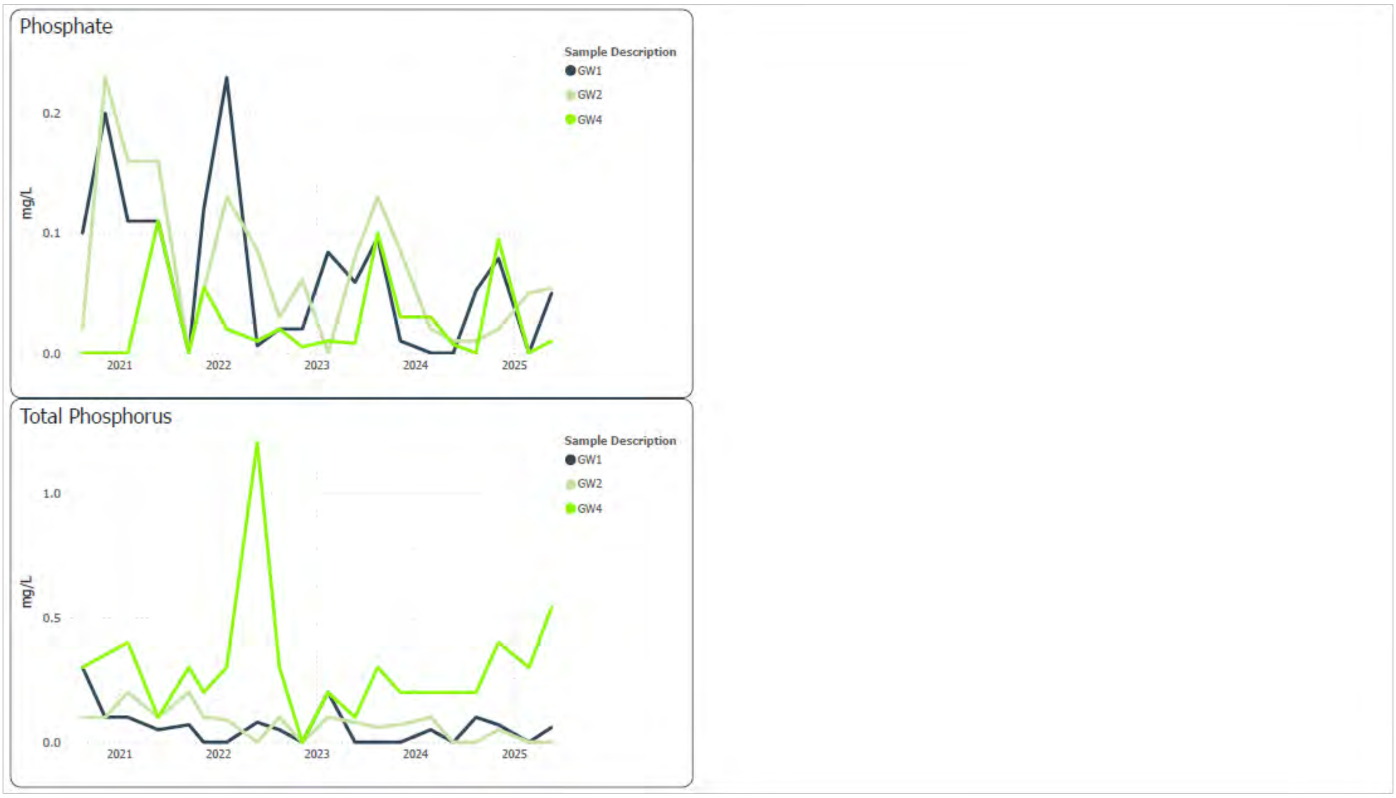

Manganese
0.6
0.4
0.2
mg/L
2021
2022
2023
2024
2025
Sample Description
GW1
GW2
GW4


Chromium
0.006
0.004
0.002
0.000
mg/L
2021
2022
2023
2024
2025
Sample Description
GW1
GW2
GW4


Sum Petroleum Hydrocarbons C10 - C40
600
400
200
0
mg/L
2021
2022
2023
2024
2025
Sample Description
GW1
GW2
GW4


Zinc
Barium
Copper
Nickel
Sample Description
GW1
GW2
GW4
mg/L
0.10
0.05
0.00
100
50
0
0.006
0.004
0.002
0.000
2021
2022
2023
2024
2025


Ammonia
NOx
TKN
Total Nitrogen
Sample Description
GW1
GW2
GW4
mg/L
30
20
10
5
0
2021
2022
2023
2024
2025



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.

7.4.4 Trends and Discrepancies Against Predicted and Actual Impacts

To date the groundwater quality and depth levels have remained fairly consistent. Changes in GW4 can be related to surface water influence and a low water volume.

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 22. 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	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.

Noise monitoring was undertaken during the reporting period in July 2024, October 2024, January 2025, May 2025 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 H*).

Table 23. Noise Results in Report Period

Location	Activities Occurring	Date / Time	$L_{Aeq(15min)}$	Limit	$L_{A1(max)}$	Limit
N1	Brick making + Quarrying	09/07/2024 Day 30/10/2024 Day 06/02/2025 Day 14/05/2025 Day	<35 <35 <35 <35	47		N/A
N1	Brick making	09/07/2024 Evening 30/10/2024 Evening 06/02/2025 Evening 14/05/2025 Evening	<35 <35 <35 <35	44		N/A
N1	Brick making	09/07/2024 Night 30/10/2024 Night 06/02/2025 Night 14/05/2025 Night	<35 <35 <35 <35	43	<35 <35 <35 <35	53
N3	Brick making + Quarrying	09/07/2024 Day 30/10/2024 Day 06/02/2025 Day 14/05/2025 Day	<35 <35 <35 <35	46		N/A

Location	Activities Occurring	Date / Time	$L_{Aeq(15min)}$	Limit	$L_{A1(max)}$	Limit
N3	Brick making	09/07/2024 Evening 30/10/2024 Evening 06/02/2025 Evening 14/05/2025 Evening	<35 <35 <35 <35	44		N/A
N3	Brick making	09/07/2024 Night 30/10/2024 Night 06/02/2025 Night 14/05/2025 Night	<35 <35 <35 <35	43	<35 <35 <35 <35	53
N14	Brick making + Quarrying	09/07/2024 Day 30/10/2024 Day 06/02/2025 Day 14/05/2025 Day	<35 <35 <35 <35	46		N/A
N14	Brick making	09/07/2024 Evening 30/10/2024 Evening 06/02/2025 Evening 14/05/2025 Evening	<35 <35 <35 <35	44		N/A
N14	Brick making	09/07/2024 Night 30/10/2024 Night 06/02/2025 Night 14/05/2025 Night	<35 <35 <35 <35	43	<35 <35 <35 <35	53
N20	Brick making + Quarrying	09/07/2024 Day 30/10/2024Day 06/02/2025 Day 14/05/2025 Day	<35 <35 <35 <35	44		N/A
N20	Brick making	09/07/2024 Evening 30/10/2024Evening 06/02/2025Evening 14/05/2025 Evening	<35 <35 <35 <35	44		N/A
N20	Brick making	09/07/2024 Night 30/10/2024 Night 06/02/2025 Night 14/05/2025 Night	<35 <35 <35 <35	43	<35 <35 <35 <35	53
N35	Brick making + Quarrying	09/07/2024 Day 30/10/2024 Day 06/02/2025 Day 14/05/2025 Day	<35 <35 <35 <35	44		N/A
N35	Brick making	09/07/2024 Evening 30/10/2024 Evening 06/02/2025 Evening 14/05/2025 Evening	<35 <35 <35 <35	44		N/A
N35	Brick making	09/07/2024Night 30/10/2024Night 06/02/2025 Night 14/05/2025 Night	<35 <35 <35 <35	43	<35 <35 <35 <35	53

7.5.2 Non-Compliances

There were no noise 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 did not occur during the noise monitoring rounds.

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 relevant.

7.5.4 Trends and Discrepancies Against Predicted and Actual Impacts

No trends or discrepancies have been identified to date.

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 yet.

7.6.2 Non-Compliances

The Biodiversity Strategy has not been implemented and the Conservation Bond has not been submitted.

7.6.3 Comparison to Predictions

No comparison to the predictions has been made.

7.6.4 Trends and Discrepancies Against Predicted and Actual Impacts

No trends or discrepancies have been identified.

7.6.5 Measures to Improve Performance in the Next Reporting Period

The monitoring program will commence in the next report period.

7.7 HERITAGE

7.7.1 Monitoring Data

No monitoring for heritage items has been undertaken during the report period.

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 been constructed and revegetation is underway.

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.

Photography monitoring is presented below.

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 will continue annually.

Plan of:	Annual Review for Bringelly Clay/Shale Mine & Brickworks Year Ending 30/06/2025 - Photoplate 1 Visual Monitoring	Version/Date:	V0 04/09/20245	Location:	Bringelly Clay Mine, Off Greendale Road, Bringelly, NSW	Tenure:	ML 1731	Source:	Client	Project Manager:	LT
Photoplate:	ONE	Our Ref:	12741_BR_AR2024_C001_V0_P1	Council:	Camden Council	Client:	PGH Bricks & Pavers Pty Ltd	Plan By:	JD	Office:	Thornton

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.

Photoplate 1: View of Site Entrance & Quarry from Greendale Road, 2021.

Photoplate 2: View of Site Entrance & Quarry from Greendale Road, 2022.

Photoplate 3: View of Site Entrance & Quarry from Greendale Road, 2023.

Photoplate 4: View of Site Entrance & Quarry from Greendale Road, 2024.

Photoplate 5: View of Site Entrance & Quarry from Greendale Road, 2025.

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 North Western Bundwalls from Greendale Road, 2023.

Photoplate 9: View of North Western Bundwalls from Greendale Road, 2024.

Photoplate 10: View of North Western Bundwalls from Greendale Road, 2025.

Photoplate 11: View of Quarry from Residence to the West, 2021.

Photoplate 12: View of Quarry from Residence to the West, 2022.

Photoplate 13: View of Quarry from Residence to the West, 2023.

Photoplate 14: View of Quarry from Residence to the West, 2024.

Photoplate 15: View of Quarry from Residence to the West, 2025.

Photoplate 16: View of Site from Residents in the South East, 2021.

Photoplate 17: View of Site from Residents in the South East, 2022.

Photoplate 18: View of Site from Residents in the South East, 2023.

Photoplate 19: View of Site from Residents in the South East, 2024.

Photoplate 20: View of Site from Residents in the South East, 2025.

Photoplate 21: View of Site from Residents in the East, 2021.

Photoplate 22: View of Site from Residents in the East, 2022.

Photoplate 23: View of Site from Residents in the East, 2023.

Photoplate 24: View of Site from Residents in the East, 2024.

Photoplate 25: View of Site from Residents in the East, 2025.

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. Wastes generated by the brickworks is similar to previous years.

7.9.4 Trends and Discrepancies Against Predicted and Actual Impacts

No trends or discrepancies have been identified.

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 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.

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 the maintained and monitored during the next reporting period and repairs completed as required.

8 Rehabilitation

A Rehabilitation Management Plan Revision 2 dated 28/6/2022 that meets the consent conditions is available on the website (https://www.pghbricks.com.au/-nsw-environmental-reporting) and was approved by the then DPE on 2/12/2022. There is also a Rehabilitation Management Plan that has been prepared in accordance with the Resources Regulator Form and Way requirements and is also available on the website. This document requires no approval.

8.1 MONITORING DATA

The Plant Manager (or delegate), in consultation with a qualified ecologist or bush regenerator, will undertake 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.

The Bringelly Clay Mine Annual Rehabilitation Report for the Resources Regulator is included in *Appendix I*.

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 Annual Rehabilitation Report submitted to the Resources Regulator. Rehabilitation to date has been consistent with the Rehabilitation Objectives.

8.4 MEASURES TO IMPROVE PERFORMANCE IN THE NEXT REPORTING PERIOD

Monitoring will continue as required.

8.5 FURTHER DEVELOPMENT OF THE FINAL REHABILITATION PLAN

The Final Landuse Options Plan was submitted to the then DPE on 23/2/2022 and approved on 3/6/2022.

9 Completion Criteria

Completion Criteria and Rehabilitation Objectives have been submitted to the Resources Regulator portal in accordance with new requirements.

Further development of these will continue next report period.

10 Calculation of Security Deposit

A security deposit calculation was reviewed on 25/8/2025 in line with the Resource Regulator requirements. This security was estimated to be $727,496.00. The estimate was made on the current footprint of the mine, using the spreadsheet published by the Resources Regulator. Updates to the security calculation will be undertaken in accordance with the new standard conditions.

11 Community Consultation

The Community Consultation Committee(CCC) for the PGH Bringelly site is no longer having meetings as requested by the committee. There is no evidence that the Secretary has been informed of this decision. Please consider this report notification to the Secretary of the dissolving of the CCC. If the CCC needs to be re-established in the future, this will be addressed accordingly.

12 Complaints

No complaints were received during the reporting period.

13 Incidents and Non-Compliances

The transport and operating hours non-compliances will be reported to DPHI through the Major Projects Portal.

13.1 NON-COMPLIANCES

The Independent Environmental Audit undertaken by Element Environmental outlined non-compliances relevant to the previous reporting period as discussed in Section *4.2*.

14 Improvement Measures

Table 24. Improvement Measures

Item	Due
Following submission of Annual Review and IEA all plans, strategies and programs will be reviewed and the review recorded. Any changes to plans will be submitted via the Major Projects Portal.	December 31st 2025
Review of management of truck counts and operation hours, implement strategies to avoid further out of hours trucks. Report non-compliances summary to DPHI via portal.	December 31st 2025
Establish a vegetation screen on noise bunds, as soon as practicable after construction of the bunds.	As soon as practicable after construction of the bunds
Continue Environmental Monitoring and compare with relevant limits and undertake measures to maintain compliance with criteria.	As required
Review all links provided on environmental reporting webpage and upload new data; fix broken links.	December 31st 2025
CSR to review notification requirements under the consent and implement an updated incident reporting strategy that can be shared with the site team.	December 31st 2025
CSR to discuss the following with all heavy vehicle drivers: **1) Trucks are not to arrive prior to 6:00am;** **2) Exit protocol, to ensure no heavy vehicles turn west onto Greendale Road; and** **3) Truck tyres are cleaned adequately before exiting the site.** **Update transport management plan if required. Review placement of truck sensor.**	December 31st 2025
CSR to implement landowner notification protocol in the event that environmental criteria are exceeded, e.g. protocol established detailing which landowners should be notified if air quality exceedance is identified for various wind directions.	December 31st 2025
Resourcing to be secured ahead of time to ensure auditors are engaged prior to 24 February 2027 for the next ongoing independent environmental audit.	December 31st 2026

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	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 *Threatened Species Conservation Act 1995*
EIS	Environmental Impact Statement titled *Bringelly Brickworks and Quarry Expansion* (2 volumes), dated September 2013, as modified by the Response to Submissions titled, *Bringelly Brickworks and Quarry Expansion, Response to Submissions* dated February 2014 and the letter entitled *Bringelly Brickworks – Biodiversity Offsets*, dated 2 June 2014
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
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	*State Environmental Planning Policy (Sydney Regional Growth Centres) 2006*
Ha	Hectare
Incident	A set of circumstances that: • 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	*National Parks and Wildlife Act 1974*
OEH	NSW Office of Environment and Heritage
POEO Act	*Protection of the Environment Operations Act 1997*
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

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

Table 1: Operating Hours

Activity	*Operating Hours*
• 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

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	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

3. 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 $\mu g/m^3$
Particulate matter < 10 µm (PM_{10})	Annual	[a] 30 $\mu g/m^3$

Table 4: Short-Term Criteria for Particulate Matter

Pollutant	Averaging period	[d] Criterion
Particulate matter < 10 µm (PM_{10})	24 hour	[a] 50 µg/m³

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/m²/month	[a] 4 g/m²/month

Table 6: Long and Short-Term Stack Emissions

Pollutant	Averaging period	[d] Criterion
Sulphur Dioxide	10-minute	712 µg/m³
	1-Hour	570 µg/m³
	24-Hour	228 µg/m³
	Annual	60 µg/m³
Nitrogen Dioxide	1-Hour	246 µg/m³
	Annual	62 µg/m³
Hydrogen Chloride	1 hour	0.14 mg/m³

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:
   (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.

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:
   (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:
         - o the effectiveness of the air quality management system; and
         - o 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:
  - o quantity of water required to support operations;
  - o sources and security of water supply;
  - o water use and management on site;
  - o reporting procedures; and
  - o 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:
  - o clean water diversions;
  - o erosion and sediment controls;
  - o the dirty water management system; and
  - o 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:
  - o any surface water discharges;

- o the effectiveness of the water management system; and
  - o 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:
  - o groundwater inflows to the quarry pit; and
  - o 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)	• Safe, stable and non-polluting • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native species and habitat

Surface infrastructure	• To be decommissioned and removed (unless the Secretary agrees otherwise)
Final void	• Minimise the size, depth and slope of the batters of the final void • Minimise the drainage catchment of the final void
Quarry pit floor	• Landscaped and revegetated using native flora species, above the anticipated final void water level
Community	• 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:
    (a) be prepared in consultation with DRE and Camden Council;
    (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;
    (c) provide details of the conceptual final landform and associated final land uses for the site;
    (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;
    (e) inform the Rehabilitation Management Plan (prepared in accordance with condition 26 of this consent); and
    (f) 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:
    (a) be prepared in consultation with OEH, DRE, DPI Water 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) 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);
    (d) 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;

    (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggers for any necessary remedial action;
    (f) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and
    (g) 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.

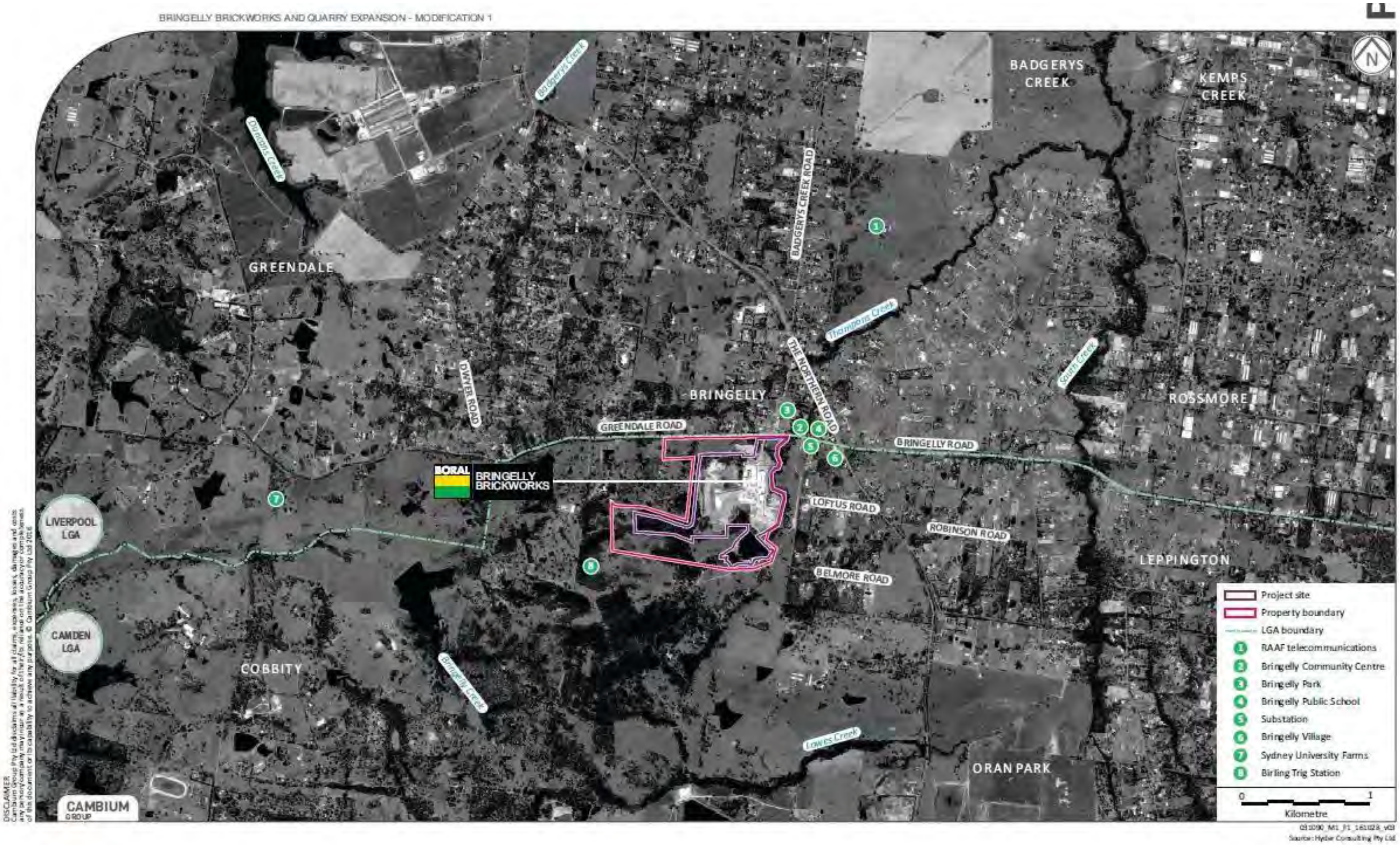
ACCESS TO INFORMATION

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

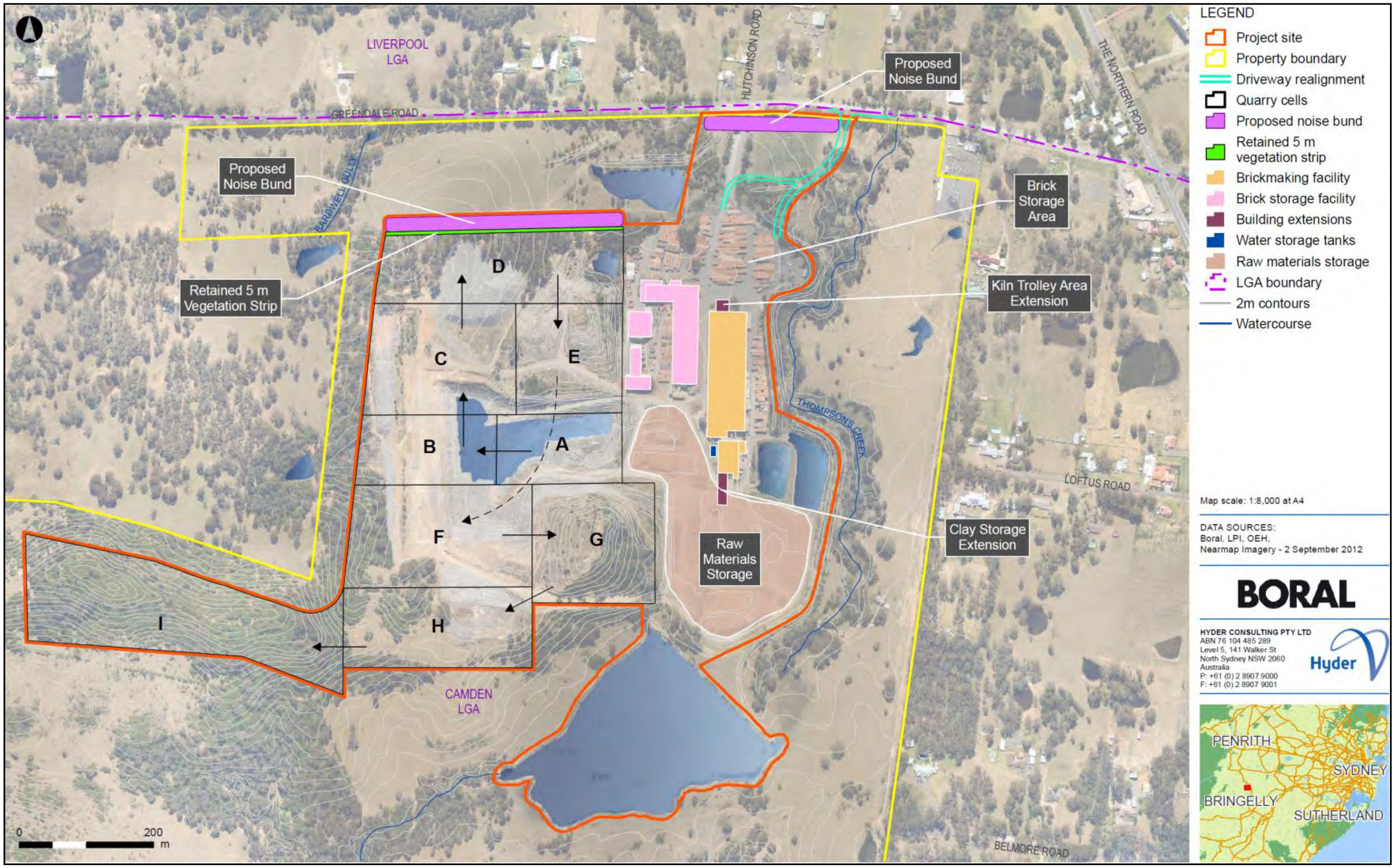
(b) keep this information up-to-date,

to the satisfaction of the Secretary.

APPENDIX 1
DEVELOPMENT AREA



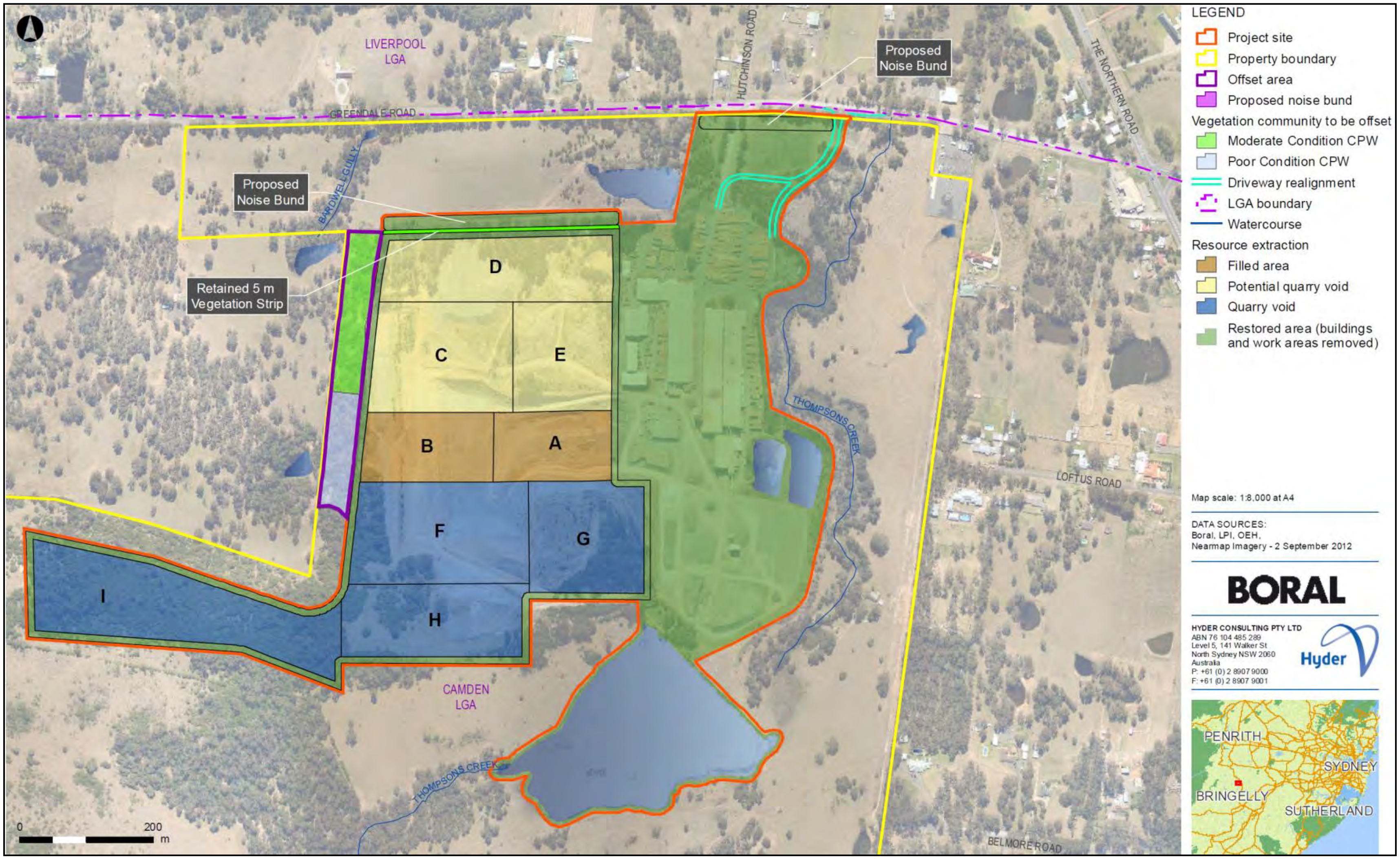
APPENDIX 2
DEVELOPMENT LAYOUT



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 ºC and 3ºC/100 m and wind speeds greater than 2 m/s at 10 m above ground level; or
   (c) temperature inversion conditions greater than 3ºC/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 date, 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

Instrument of Variation

Mining Lease 1731 (1992)

I, **JAMIE TRIPODI, Executive Director Assessments & Systems**, Mining Exploration and Geoscience in the Department of Regional NSW, with the delegated authority of the Minister under section 261B and clause 12 of Schedule 1B of the *Mining Act 1992* (the Act), **vary** the conditions of mining lease **ML 1731 (1992)** as described in Schedule A.

The conditions of **ML 1731 (1992)**, as varied, are set out in Schedule B.

The variation takes effect on 17 October 2022.

JAMIE TRIPODI
Executive Director Assessments & Systems
As delegate for the Minister administering the *Mining Act 1992*
Delegation date: 14 May 2018

Dated: 14 August 2022

Schedule A

Condition		Variation	New Condition
	Definitions	Definitions of ‘Department’, ‘Environment’ ‘Environmental incident notifications and reports’ and ‘Harm to the environment’ omitted as no longer used.	N/A
1	Notice to Landholders	Wording amended to modernise the condition	1. Notice to Landholders – see Schedule B
2	Rehabilitation	Condition omitted	N/A
3	Mining Operations Plan and Annual Rehabilitation Report	Condition omitted	N/A
4	Non-Compliance Reporting	Condition omitted	N/A
5	Environmental Incident Report	Condition omitted	N/A
7	Resource Recovery	Condition omitted	N/A
8	Security	Condition amended to modernise the wording. Condition has been re-numbered due to omission of other conditions.	2. Security– see Schedule B
9	Cooperation Agreement	Condition amended to modernise the wording. Condition has been re-numbered due to omission of other conditions.	3. Cooperation Agreement – see Schedule B
N/A		New condition attached	4. Assessable Prospecting Operations– see Schedule B
SPECIAL CONDITIONS			

Nil

Schedule B

Mining Lease Conditions

(Version as at February 2022)

Definitions

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

Term	Definition
Act	means the *Mining Act 1992.*
Landholder	for the purposes of these conditions: • does not include a secondary landholder • includes, in the case of exempted areas, the controlling body for the exempted area.
Minister	means the Minister administering the Act.

Note:

1. The rights and duties of the Lease Holder(s) are those prescribed by the *Mining Act 1992* and the Mining Regulation 2016, subject to the terms and conditions of this mining lease.
2. This mining lease does not override any obligation on the lease holder(s) to comply with the requirements of other legislation and regulatory instruments which may apply (including all relevant development approvals) unless specifically provided under the *Mining Act 1992* or other legislation or regulatory instruments.

MINING LEASE CONDITIONS

Standard conditions

See Mining Regulation 2016, Schedule 8A, Part 2.

NOTE TO HOLDERS: The prescribed standard conditions in the Mining Regulation 2016, Schedule 8A, Part 2 apply in addition to the conditions in this Schedule 2 (but have not been replicated in this mining lease). The conditions imposed by the Mining Regulation 2016 prevail to the extent of any inconsistency with the conditions in this Schedule 2.

General conditions

1. Notice to Landholders

(a) Within 90 days from the date of grant or renewal of this mining lease, the lease holder must give each landholder notice in writing:

(i) that this mining lease has been granted or renewed; and

(ii) whether the lease includes the surface.

The notice must include a plan identifying the lease area and each landholder and individual land parcel within the lease area.

(b) If there are ten or more landholders to which notice must be given, the lease holder will be taken to have complied with condition 1(a) if a notice complying with condition 1(a) is published in a newspaper circulating in the region where the lease area is situated.

2. Security

The lease holder is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations under the mining lease, including obligations under the mining lease that may arise in the future.

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

3. Cooperation Agreement

The lease holder must make every reasonable attempt, and be able to demonstrate its attempts to the satisfaction of the Secretary, to enter into a cooperation agreement with the holder(s) of any overlapping authorisations issued under the *Mining Act 1992* and petroleum titles issued under the *Petroleum (Onshore) Act 1991*. The cooperation agreement should address but not be limited to:

- access arrangements
- operational interaction procedures
- dispute resolution
- information exchange
- well location
- timing of drilling

- potential resource extraction conflicts; and
- rehabilitation issues.

4. Assessable Prospecting Operations

(a) The lease holder must not carry out any assessable prospecting operation on land over which this lease has been granted unless:

(i) it is carried out in accordance with any necessary development consent; or

(ii) if development consent is not required, the prior written approval of the Minister has been obtained.

(b) The Minister may require the lease holder to provide such information as required to assist the Minister to consider an application for approval.

(c) An approval granted by the Minister under this condition may be granted subject to terms.

(d) The lease holder must comply with the approval granted to the holder under this condition.

Special conditions

Nil

Exploration Reporting

Note: *Exploration Reports (Geological and Geophysical)*

The lease holder must lodge reports in accordance with the requirements in section 163C of the Mining Act 1992 and clauses 59, 60 and 61 of the Mining Regulation 2016 as well as any further requirements issued by the Secretary under clause 62 of the Mining Regulation.

Guidelines for the structure, content and data format requirements for reports are set out in the Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales.

Appendix C
EPA Licence 1808 Conditions

Environment Protection Licence

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

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Information about this licence

Dictionary

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

Responsibilities of licensee

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

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

Variation of licence conditions

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

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

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

Duration of licence

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

Licence review

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

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

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

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.

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;

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.

Air

EPA identi-fication 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.

Water and land

EPA Identi-fication 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.

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\s 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\s.

L3.4 Air Concentration Limits

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 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.

5 Monitoring and Recording Conditions

M1 Monitoring records

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

M1.2 All records required to be kept by this licence must be:
a) in a legible form, or in a form that can readily be reduced to a legible form;
b) kept for at least 4 years after the monitoring or event to which they relate took place; and
c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
a) the date(s) on which the sample was taken;
b) the time(s) at which the sample was collected;
c) the point at which the sample was taken; and
d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

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

M2.2 Air Monitoring Requirements

POINT 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

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:
a) any methodology which is required by or under the Act to be used for the testing of the concentration of 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.

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

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

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

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.

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

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 *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
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 *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
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

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 Environmen t 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 describe d 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 mo nths. 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 *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.

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

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

Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the *Water Act 1912* or *Water Management Act 2000*.

Select the type of licence or approval and enter the licence or approval number:

- **Water access licence (WAL):** a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- **1912 water licence:** a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- **Approval:** an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

○ Water access licence (WAL) issued under the *Water Management Act 2000*

○ *Water Act 1912* Licences and Authorities

○ Approval issued under the *Water Management Act 2000*

Find out if a *Water Act 1912* licence has been converted

◉ **Water licence conversion status**

Water Licence Number 10 ▼ BL ▼ 605629

Notes:

Water Act 1912 licences and authorities are being converted to water access licences and approvals under the *Water Management Act 2000* as water sharing plans commence (see licence conversion).

If a *Water Act 1912* licence has been converted, the search results will display the water access licences and approvals that have been created. Water access licences are registered in the Water Access Licence Register administered by NSW Land Registry Services. Those water access licences that do not display a WAL number in the search results are still to have their licence details confirmed and completed.

Due to privacy laws very little information on *Water Act 1912* licence and authorities can be made freely available. Full information for a particular licence or authority can be obtained if required for conveyancing by applying to WaterNSW. See legal searches for water related interests.

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Search Results

The licence 10BL605629 has not been converted and is not subject to a water sharing plan.

Disclaimer: WaterNSW is making the information available on the understanding that it does not warrant that the information is suitable for any intended use. In using the information supplied, the user acknowledges that they are responsible for any deductions or conclusions arrived at from interpretation of the data.

Privacy: The information provided is limited to meet the requirements of section 57 of the *Privacy and Personal Information Act 1998*.

Exporting and printing: Search results show a maximum of 50 rows per page. Search results can only be printed page by page.

More information: Should you require further information or technical assistance, please submit your request to water.enquiries@waternsw.com.au or contact 1300 662 077

Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the *Water Act 1912* or *Water Management Act 2000*.

Select the type of licence or approval and enter the licence or approval number:

- **Water access licence (WAL):** a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- **1912 water licence:** a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- **Approval:** an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

○ Water access licence (WAL) issued under the *Water Management Act 2000*

◉ ***Water Act 1912* Licences and Authorities**

Licence Number	10 ▼ BL ▼ 605629
or	
Land Reference	**Lot** **DP**

Due to privacy laws very little information on *Water Act 1912* licence and authorities can be made freely available. However to assist in conveyancing the following searches are provided to identify where such licences and authorities apply. Full information for a particular licence or authority can be obtained if required for conveyancing by applying to WaterNSW. See legal searches for water related interests.

Notes: Search by land reference may not return all licences that apply to a particular lot due to inaccuracies in land referencing information in WaterNSW's licence database. Land referencing information is currently in the process of being verified.

○ Approval issued under the *Water Management Act 2000*

Find out if a *Water Act 1912* licence has been converted

○ Water licence conversion status

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Search Results

Lot/DP	Description
Lot 100, DP 1203966	Work Location
Lot 100, DP 1203966	Land Benefited

Disclaimer: WaterNSW is making the information available on the understanding that it does not warrant that the information is suitable for any intended use. In using the information supplied, the user acknowledges that they are responsible for any deductions or conclusions arrived at from interpretation of the data.

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Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the *Water Act 1912* or *Water Management Act 2000*.

Select the type of licence or approval and enter the licence or approval number:

- **Water access licence (WAL):** a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- **1912 water licence:** a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- **Approval:** an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

- Water access licence (WAL) issued under the *Water Management Act 2000*
- *Water Act 1912* Licences and Authorities
- Approval issued under the *Water Management Act 2000*

Find out if a *Water Act 1912* licence has been converted

- Water licence conversion status

Water Licence Number 10 ▼ BL ▼ 605770

Notes:

Water Act 1912 licences and authorities are being converted to water access licences and approvals under the *Water Management Act 2000* as water sharing plans commence (see licence conversion).

If a *Water Act 1912* licence has been converted, the search results will display the water access licences and approvals that have been created. Water access licences are registered in the Water Access Licence Register administered by NSW Land Registry Services. Those water access licences that do not display a WAL number in the search results are still to have their licence details confirmed and completed.

Due to privacy laws very little information on *Water Act 1912* licence and authorities can be made freely available. Full information for a particular licence or authority can be obtained if required for conveyancing by applying to WaterNSW. See legal searches for water related interests.

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Search Results

The licence 10BL605770 has not been converted and is not subject to a water sharing plan.

Disclaimer: WaterNSW is making the information available on the understanding that it does not warrant that the information is suitable for any intended use. In using the information supplied, the user acknowledges that they are responsible for any deductions or conclusions arrived at from interpretation of the data.

Privacy: The information provided is limited to meet the requirements of section 57 of the *Privacy and Personal Information Act 1998*.

Exporting and printing: Search results show a maximum of 50 rows per page. Search results can only be printed page by page.

More information: Should you require further information or technical assistance, please submit your request to water.enquiries@waternsw.com.au or contact 1300 662 077

Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the *Water Act 1912* or *Water Management Act 2000*.

Select the type of licence or approval and enter the licence or approval number:

- **Water access licence (WAL):** a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- **1912 water licence:** a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- **Approval:** an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

○ Water access licence (WAL) issued under the *Water Management Act 2000*

◉ ***Water Act 1912*** **Licences and Authorities**

Licence Number	10 ▼ BL ▼ 605770
or	
Land Reference	**Lot** **DP**

Due to privacy laws very little information on *Water Act 1912* licence and authorities can be made freely available. However to assist in conveyancing the following searches are provided to identify where such licences and authorities apply. Full information for a particular licence or authority can be obtained if required for conveyancing by applying to WaterNSW. See legal searches for water related interests.

Notes: Search by land reference may not return all licences that apply to a particular lot due to inaccuracies in land referencing information in WaterNSW's licence database. Land referencing information is currently in the process of being verified.

○ Approval issued under the *Water Management Act 2000*

Find out if a *Water Act 1912* licence has been converted

○ Water licence conversion status

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Search Results

Lot/DP	Description
Lot 100, DP 1203966	Work Location
Lot 100, DP 1203966	Land Benefited

Disclaimer: WaterNSW is making the information available on the understanding that it does not warrant that the information is suitable for any intended use. In using the information supplied, the user acknowledges that they are responsible for any deductions or conclusions arrived at from interpretation of the data.

Privacy: The information provided is limited to meet the requirements of section 57 of the *Privacy and Personal Information Act 1998*.

Exporting and printing: Search results show a maximum of 50 rows per page. Search results can only be printed page by page.

More information: Should you require further information or technical assistance, please submit your request to water.enquiries@waternsw.com.au or contact 1300 662 077

Appendix E Surface Water Licences

Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the *Water Act 1912* or *Water Management Act 2000*.

Select the type of licence or approval and enter the licence or approval number:

- **Water access licence (WAL):** a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- **1912 water licence:** a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- **Approval:** an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

Water access licence (WAL) issued under the *Water Management Act 2000*

Water Act 1912 Licences and Authorities

Approval issued under the *Water Management Act 2000*

Approval Number 10 ▼ CA ▼ 104657

Notes: The search results will list the conditions imposed on the approval and also list the number/s of any water access licence/s that nominate the water supply works associated with the approval.

This search tool does not include information about controlled activity approvals. Information publicly available from a register of controlled activity approvals is available at our local offices.

Find out if a *Water Act 1912* licence has been converted

Water licence conversion status

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Search Results

Kind of Approval	Issue Date	Expiry Date	Approval Number	Status	Water Source
Water Supply Works And Water Use	01-JUL-2011	20-APR-2026	10CA104657	Current	Hawkesbury And Lower Nepean Rivers Water Source

Work Type	Description	Diameter	Status	No of Works	Location (Lot/DP)
Diversion Works - Pumps	80mm Centrifugal Pump	*NA*	Active	1	Lot 101, DP 1203966

Use Purpose(s)	Location(s)
Irrigation	

Water Access Licences nominating these works	
Reference Number	**WAL Number**
10AL104656	26259

- Conditions

Plan Conditions

Water sharing plan	Greater Metropolitan Region Unregulated River Water Sources
	Take of water
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.
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.
	Water management works
MW2435-00001	Water must be taken through the approved metering equipment installed on the water supply work authorised by this approval.
	Monitoring and recording
MW2338-00001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.
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.
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.
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.
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.
	Reporting
MW0051-00001	Once the approval holder becomes aware of a breach of any condition on this approval, the approval 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.

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.

Other Conditions

	Water management works
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.
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.
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.

Disclaimer: WaterNSW is making the information available on the understanding that it does not warrant that the information is suitable for any intended use. In using the information supplied, the user acknowledges that they are responsible for any deductions or conclusions arrived at from interpretation of the data.

Privacy: The information provided is limited to meet the requirements of section 57 of the *Privacy and Personal Information Act 1998*.

Exporting and printing: Search results show a maximum of 50 rows per page. Search results can only be printed page by page.

More information: Should you require further information or technical assistance, please submit your request to water.enquiries@waternsw.com.au or contact 1300 662 077

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.

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

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 WATERNSW

NOTES

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

**** END OF CERTIFICATE ****

WARNING: BEFORE DEALING WITH THIS LICENCE, SEARCH THE CURRENT FOLIO OF THE REGISTER

Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the *Water Act 1912* or *Water Management Act 2000*.

Select the type of licence or approval and enter the licence or approval number:

- **Water access licence (WAL):** a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- **1912 water licence:** a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- **Approval:** an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

Water access licence (WAL) issued under the *Water Management Act 2000*

Water Access Licence (WAL) Number WAL 26259

A WAL number starts with the letters 'WAL' followed by several numbers

Can't find your WAL number? Do you have a reference number? A reference number starts with a two digit number, followed by 'AL' and then several numbers. Use the following tool to find your WAL by entering your reference number. Enter the reference number to find the WAL number.

Notes:

The search results will list the conditions imposed on the water access licence. Any approved water supply work/s nominated on the water access licence are identified by the approval number/s for the work/s.

The information about a water access licence provided in the search results is a summary and may not always be up to date. If you require full and up to date details about a particular water access licence (including current holders, share and extraction component details, encumbrances and notations) you should search the Water Access Licence Register administered by NSW Land Registry Services.

Water Act 1912 Licences and Authorities

Approval issued under the *Water Management Act 2000*

Find out if a *Water Act 1912* licence has been converted

Water licence conversion status

Previous Search Print Export

Search Results

Category [Subcategory]	Status	Water Source	Tenure Type	Management Zone	Share Components (units or ML)

Unregulated River	Current	Hawkesbury And Lower Nepean Rivers Water Source	Continuing	Upper South Creek Management Zone	150.00

Extraction Times or Rates
Subject to conditions water may be taken at any time or rate

Nominated Work Approval(s)
10CA104657

- Conditions

Plan Conditions

Water sharing plan	Greater Metropolitan Region Unregulated River Water Sources
	Take of water
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.
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.
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.
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.
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.
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.
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.
	Monitoring and recording
MW2338-00001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.
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.
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.
	Reporting
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.

Other Conditions

NIL

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More information: Should you require further information or technical assistance, please submit your request to water.enquiries@waternsw.com.au or contact 1300 662 077

Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the *Water Act 1912* or *Water Management Act 2000*.

Select the type of licence or approval and enter the licence or approval number:

- **Water access licence (WAL):** a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- **1912 water licence:** a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- **Approval:** an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

Water access licence (WAL) issued under the *Water Management Act 2000*

Water Act 1912 Licences and Authorities

Approval issued under the *Water Management Act 2000*

Approval Number 10 ▼ CA ▼ 104630

Notes: The search results will list the conditions imposed on the approval and also list the number/s of any water access licence/s that nominate the water supply works associated with the approval.

This search tool does not include information about controlled activity approvals. Information publicly available from a register of controlled activity approvals is available at our local offices.

Find out if a *Water Act 1912* licence has been converted

Water licence conversion status

Previous Search Print Export

Search Results

Kind of Approval	Issue Date	Expiry Date	Approval Number	Status	Water Source
Water Supply Works And Water Use	01-JUL-2011	18-JUN-2025	10CA104630	Current	Hawkesbury And Lower Nepean Rivers Water Source

Work Type	Description	Diameter	Status	No of Works	Location (Lot/DP)
Diversion Works - Pumps	100mm Centrifugal Pump	*NA*	Active	1	Lot 100, DP 1203966
		NA	Active		Lot 100, DP 1203966
Storages	Bywash Dam	*NA*	Active	1	Lot 100, DP 1203966

Use Purpose(s)	Location(s)

Irrigation	Lot 100, DP 1203966

Water Access Licences nominating these works	
Reference Number	**WAL Number**
10AL104628	26257
10AL104629	25987

- Conditions

Plan Conditions

Water sharing plan	Greater Metropolitan Region Unregulated River Water Sources

	Take of water
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.
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.
	Monitoring and recording
MW2338-00001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.
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.
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.
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.
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.
	Reporting
MW0051-00001	Once the approval holder becomes aware of a breach of any condition on this approval, the approval 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.
MW3860-	A. When a water supply work authorised by this approval is no longer to be used permanently,

00001	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.

Other Conditions

	Water management works
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.
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.
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.
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 bakn of the watercourse near the work and particulars of which are retained in the office of the relevant licensor.
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.
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.

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More information: Should you require further information or technical assistance, please submit your request to water.enquiries@waternsw.com.au or contact 1300 662 077

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.

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

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 WATERNSW

NOTES

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

**** END OF CERTIFICATE ****

WARNING: BEFORE DEALING WITH THIS LICENCE, SEARCH THE CURRENT FOLIO OF THE REGISTER

Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the *Water Act 1912* or *Water Management Act 2000*.

Select the type of licence or approval and enter the licence or approval number:

- **Water access licence (WAL):** a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- **1912 water licence:** a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- **Approval:** an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

◉ **Water access licence (WAL) issued under the *Water Management Act 2000***

Water Access Licence (WAL) Number WAL 26257

A WAL number starts with the letters 'WAL' followed by several numbers

Can't find your WAL number? Do you have a reference number? A reference number starts with a two digit number, followed by 'AL' and then several numbers. Use the following tool to find your WAL by entering your reference number. Enter the reference number to find the WAL number.

Notes:

The search results will list the conditions imposed on the water access licence. Any approved water supply work/s nominated on the water access licence are identified by the approval number/s for the work/s.

The information about a water access licence provided in the search results is a summary and may not always be up to date. If you require full and up to date details about a particular water access licence (including current holders, share and extraction component details, encumbrances and notations) you should search the Water Access Licence Register administered by NSW Land Registry Services.

○ *Water Act 1912* Licences and Authorities

○ Approval issued under the *Water Management Act 2000*

Find out if a *Water Act 1912* licence has been converted

○ Water licence conversion status

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Search Results

Category [Subcategory]	Status	Water Source	Tenure Type	Management Zone	Share Components (units or ML)

Domestic And Stock	Current	Hawkesbury And Lower Nepean Rivers Water Source	Specific Purpose	Upper South Creek Management Zone	6.50

Extraction Times or Rates
Subject to conditions water may be taken at any time or rate

Nominated Work Approval(s)
10CA104630

- Conditions

Plan Conditions

Water sharing plan	Greater Metropolitan Region Unregulated River Water Sources
	Take of water
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.
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.
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.
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.
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.
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.
	Use of water
MA2455-00012	Water must be used for the purpose of domestic consumption and stock watering.
	Monitoring and recording
MW2338-00001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.
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.
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.
	Reporting
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.

Other Conditions

NIL

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Privacy: The information provided is limited to meet the requirements of section 57 of the *Privacy and Personal Information Act 1998*.

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More information: Should you require further information or technical assistance, please submit your request to water.enquiries@waternsw.com.au or contact 1300 662 077

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.

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

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 WATERNSW

NOTES

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

**** END OF CERTIFICATE ****

WARNING: BEFORE DEALING WITH THIS LICENCE, SEARCH THE CURRENT FOLIO OF THE REGISTER

Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the *Water Act 1912* or *Water Management Act 2000*.

Select the type of licence or approval and enter the licence or approval number:

- **Water access licence (WAL):** a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- **1912 water licence:** a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- **Approval:** an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

◉ **Water access licence (WAL) issued under the *Water Management Act 2000***

Water Access Licence (WAL) Number WAL 25987

A WAL number starts with the letters 'WAL' followed by several numbers

Can't find your WAL number? Do you have a reference number? A reference number starts with a two digit number, followed by 'AL' and then several numbers. Use the following tool to find your WAL by entering your reference number. Enter the reference number to find the WAL number.

Notes:

The search results will list the conditions imposed on the water access licence. Any approved water supply work/s nominated on the water access licence are identified by the approval number/s for the work/s.

The information about a water access licence provided in the search results is a summary and may not always be up to date. If you require full and up to date details about a particular water access licence (including current holders, share and extraction component details, encumbrances and notations) you should search the Water Access Licence Register administered by NSW Land Registry Services.

○ *Water Act 1912* Licences and Authorities

○ Approval issued under the *Water Management Act 2000*

Find out if a *Water Act 1912* licence has been converted

○ Water licence conversion status

« Previous | Search | Print | Export

Search Results

Category [Subcategory]	Status	Water Source	Tenure Type	Management Zone	Share Components (units or ML)

Unregulated River	Current	Hawkesbury And Lower Nepean Rivers Water Source	Continuing	Upper South Creek Management Zone	152.50

Extraction Times or Rates
Subject to conditions water may be taken at any time or rate

Nominated Work Approval(s)
10CA104630

- Conditions

Plan Conditions

Water sharing plan	Greater Metropolitan Region Unregulated River Water Sources
	Take of water
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.
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.
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.
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.
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.
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.
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.

	Monitoring and recording
MW2338-00001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.
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.
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.
	Reporting
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.

Other Conditions

NIL

Disclaimer: WaterNSW is making the information available on the understanding that it does not warrant that the information is suitable for any intended use. In using the information supplied, the user acknowledges that they are responsible for any deductions or conclusions arrived at from interpretation of the data.

Privacy: The information provided is limited to meet the requirements of section 57 of the *Privacy and Personal Information Act 1998*.

Exporting and printing: Search results show a maximum of 50 rows per page. Search results can only be printed page by page.

More information: Should you require further information or technical assistance, please submit your request to water.enquiries@waternsw.com.au or contact 1300 662 077

Appendix F Conditions Compliance Worksheet

Bringelly Brickworks Extension Project
Applicable Period: 1 July 2024 to 30 June 2025
SSD Conditions: SSD_5684 Mod 1

Compliant

Non Compliant

Not Triggered — A requirement has an activation or timing trigger that has not been met at thephase 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	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	
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, FWP and ARR.	Non Compliant	
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	Non Compliant	All comments from DPIE have been not addressed, due to changes in the operational management in CSR an action plan and updates following the IEA was not submitted in 2024-2025 reporting period.
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	
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.	Non Compliant	
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					

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Comments
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.
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	Compliant	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, equipiment 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	As per DA91/1194 strategies, plans or programs until updated plans are approved.	ARR	Compliant	
2		IDENTIFICATION OF APPROVED LIMITS OF EXTRACTION					

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Comments
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 boundarys are pegged. The all DA extraction limits have been 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	ML survey pegs have been placed around the site. Delineation of the factory and mine has been noted.
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	Production data included in this report and results submitted to DRE each year. Submitted online in portal.
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 reciepts	Council reciepts	Compliant	Invoices from Camden Council received and paid.
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, truck counter	Employee hours logged in kronus system	Non Compliant	

Table 1: Operating Hours

Activity	*Operating Hours*
• 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

3		NOISE					
3		Noise Criteria					
3	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. 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.	Quarterly for the first 2 years then reviewed	NSW Industrial Noise Policy	Noise monitoring results	Compliant	

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<table>
<tr><th>Schedule</th><th>Condition</th><th>Condition Text</th><th>Timing for Compliance</th><th>Monitoring Methodology</th><th>Evidence</th><th>Details of compliance status</th><th>Comments</th></tr>
<tr><td></td><td></td><td>Table 2: Noise criteria dB(A)
<table>
<tr><th rowspan="2">Activity</th><th rowspan="2">Receiver</th><th>Day/Evening/Shoulder</th><th colspan="2">Night</th></tr>
<tr><th>$L_{Aeq(15 min)}$</th><th>$L_{Aeq(15 min)}$</th><th>$L_{A1(max)}$</th></tr>
<tr><td rowspan="4">Brick making and quarrying</td><td>R1, R2</td><td>47</td><td colspan="2" rowspan="4">Not Applicable</td></tr>
<tr><td>R3, R4, R14</td><td>46</td></tr>
<tr><td>R15, R17</td><td>45</td></tr>
<tr><td>All other receivers</td><td>44</td></tr>
<tr><td>Brick making</td><td>All receivers</td><td>44</td><td>43</td><td>53</td></tr>
</table></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>3</td><td></td><td>Construction Noise</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>3</td><td>3</td><td>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.</td><td>During Construction</td><td>Interim Construction Noise Guideline</td><td>Noise monitoring results</td><td>Compliant</td><td></td></tr>
<tr><td>3</td><td></td><td>Noise Bunds</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>3</td><td>4</td><td>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.</td><td>Prior to undertaking quarrying operations in the extension area</td><td>NSW Road Noise Policy</td><td>Visual obervation and photographic evidence</td><td>Compliant</td><td></td></tr>
<tr><td>3</td><td>4a</td><td>The Applicant must ensure that the noise bund adjacent to Greendale Road is constructed prior to the commencement of brick making operations.</td><td>Prior to commencement of brickmaking operations</td><td>NSW Road Noise Policy</td><td>Visual obervation and photographic evidence</td><td>Non Compliant</td><td></td></tr>
<tr><td>3</td><td></td><td>Operating Conditions</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>3</td><td>5</td><td>The Applicant must:
(a) implement all reasonable and feasible mitigation measures to minimise construction, operational and road noise of the development;</td><td>At all times</td><td>Deploy Noise Management Plan.
Scheduled equipment inspections</td><td>Annual review, equipment service records and noise monitoring results</td><td>Compliant</td><td></td></tr>
<tr><td></td><td></td><td>(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;</td><td>During Construction</td><td>Interim Construction Noise Guideline</td><td>Noise monitoring results.</td><td>Compliant</td><td></td></tr>
<tr><td></td><td></td><td>(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;</td><td>Quarterly and as required</td><td>NSW Industrial Noise Policy</td><td>Noise monitoring results.
Annual Review.
Absence of complaints.</td><td>Compliant</td><td></td></tr>
<tr><td></td><td></td><td>(d) maintain the effectiveness of noise suppression equipment on plant and equipment on site;</td><td>At all times</td><td>Deploy Noise Management Plan.
Scheduled equipment inspections</td><td>Annual review, equipment service records and noise monitoring results.
Absence of complaints.</td><td>Compliant</td><td></td></tr>
<tr><td></td><td></td><td>(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</td><td>During the applicable periods of meterological conditions</td><td>NSW Industrial Noise Policy
Meteorological monitoring</td><td>Noise monitoring results.
Meterological data.
Absence of complaints.</td><td>Compliant</td><td></td></tr>
<tr><td></td><td></td><td>(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.</td><td>Quarterly</td><td>NSW Industrial Noise Policy</td><td>Noise monitoring results</td><td>Compliant</td><td></td></tr>
<tr><td>3</td><td></td><td>Noise Management Plan</td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

Bringelly Brickworks Extension Project
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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Comments
3	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;	Prior to undertaking quarrying operations in the extension area	Correspondence	Correspondence	Compliant	
		(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	
		(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;	Prior to undertaking quarrying operations in the extension area	Not applicable	Noise Management Plan	Compliant	
		(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	
		(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	
		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	
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.	At all times	EPA Approved methods for the Sampling and Analysis of Air	Air quality monitoring results	Compliant	

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Comments
		(see Tables 3-6 below)		Analysis of Air Pollutants in NSW			

Table 3: Long-Term Criteria for Particulate Matter

Pollutant	Averaging period	[d] Criterion
Total suspended particulates (TSP)	Annual	[a] 90 µg/m³
Particulate matter < 10 µm (PM_{10})	Annual	[a] 30 µg/m³

Table 4: Short-Term Criteria for Particulate Matter

Pollutant	Averaging period	[d] Criterion
Particulate matter < 10 µm (PM_{10})	24 hour	[a] 50 µg/m³

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/m²/month	[a] 4 g/m²/month

Table 6: Long and Short-Term Stack Emissions

Pollutant	Averaging period	[d] Criterion
Sulphur Dioxide	10-minute	712 µg/m³
	1-Hour	570 µg/m³
	24-Hour	228 µg/m³
	Annual	60 µg/m³
Nitrogen Dioxide	1-Hour	246 µg/m³
	Annual	62 µg/m³
Hydrogen Chloride	1 hour	0.14 mg/m³

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.*

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;	At all times	Not applicable	Air quality monitoring results	Compliant	
		(b) minimise surface disturbance and maximise progressive rehabilitation;	At all times	Visual observation	ARR Annual Review Photographic evidence	Compliant	
		(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	During adverse meteorological conditions	Meterological data. Visual observation.	Air quality monitoring results. Absence of complaints.	Compliant	
		(d) monitor and report on compliance with the relevant air quality conditions in this consent; to the satisfaction of the Secretary.	Quarterly	EPA Approved methods for the Sampling and Analysis of Air Pollutants in NSW	Air quality monitoring results. Absence of complaints.	Compliant	
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;	Prior to undertaking quarrying operations in the extension area	Correspondence	Correspondence	Compliant	

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Comments
		(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	
		(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;	Prior to undertaking quarrying operations in the extension area	Not applicable	Air Quality Management Plan	Compliant	
		(d) describe the air quality management system; and	Prior to undertaking quarrying operations in the extension area	Not applicable	Air Quality Management Plan	Compliant	
		(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.	Prior to undertaking quarrying operations in the extension area	Not applicable	Air Quality 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	Air Quality Management Plan	Compliant	
3		METEOROLOGICAL MONITORING					
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	
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.	Included in Annual Review	Review of weighbridge records.	Weighbridge records	Compliant	
		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.	Site inspection records	Compliant	

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Comments
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	Pers comm staff indicate vehicles enter and exit in a forward direction. The traffic flow direction is signposted to assist.
		(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	Pers Comm staff indicate all loads are covered exporting finished 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;	At all times	Transport Management Plan	Weighbridge operator/staff observations	Compliant	Pers comm staff inspect vehicles prior to leaving the site and a pressurised washer is used to clean vehicles if required,.
		(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	Pers comm staff indicate all heavy vehicles turn right onto Greendale road when exiting the site.
		(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	
		(f) no trucks queue at the entrance to the site before 6am.	At all times	Transport Management Plan	Weighbridge operator/staff observations	Compliant	Pers Comm staff indicates no trucks are permitted to queue at the entrance prior to 6am.
		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	Non Compliant	The new access road intersection has not been constructed.
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	Not applicable	Transport Management Plan	Compliant	
		(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	

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Comments
		(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	
		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	Annual 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	
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	

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Comments
		(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	
		(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.	Prior to undertaking quarrying operations in the extension area	Not applicable	Not applicable	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	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.	On commencement	Visual observations	Photographic evidence	Non Compliant	

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		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			Annual review Annual Rehabilitation Report		
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	Non Compliant	
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: (a) be prepared in consultation with the OEH and Camden Council;	Prior to undertaking quarrying operations in	Not applicable	Biodiversity Management Plan	Compliant	
		(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: 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;	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: 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;	Prior to undertaking quarrying operations in the extension area	Not applicable	Biodiversity Management Plan	Compliant	

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		(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: 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.	Within 6 months of the approval of the Biodiversity Management Plan.	Correspondence	Correspondence	Non Compliant	Conservation bond not submitted within 6 months of commencement.
3		REHABILITATION BOND					
3		Rehabilitation Objectives					
3	23	The Applicant must rehabilitate the site to the satisfaction of the Secretary. Rehabilitation must: a. comply with the objectives in Table 8; and	During rehabilitation	Visual observations.	Photographic evidence	Compliant	

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		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) — • Safe, stable and non-polluting • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native species and habitat Surface infrastructure — • To be decommissioned and removed (unless the Secretary agrees otherwise) Final void — • Minimise the size, depth and slope of the batters of the final void • Minimise the drainage catchment of the final void Quarry pit floor — • Landscaped and revegetated using native flora species, above the anticipated final void water level Community — • Ensure public safety	During rehabilitation	Visual observations. Review of Rehabilitation Management Plan, Environmental Management Strategy, Final Land Use Options Plan.	Photographic evidence Annual review Annual Rehabilitation Report	Compliant	Rehabilitation to date has been reviewed in the ARR submitted to the DPIRD annually and approved. Rehabilitation to date has been consistent with the Objectives.
		Progressive Rehabilitation					
3	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.	During rehabilitation	Visual observations. Review of Rehabilitation Management Plan, Environmental Management Strategy, Final Land Use Options Plan.	Photographic evidence Annual review Annual Rehabilitation Report	Compliant	
3		Final Land Use Options Plan					
3	25	The Applicant must prepare a Final Land Use Options Plan for the site to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with DRE and Camden Council;	within 2 years of the date of notifying the Department of commencement of development	Correspondence	Correspondence	Compliant	
		(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;	within 2 years of the date of notifying the Department of commencement of development	Correspondence	Correspondence	Compliant	
		(c) provide details of the conceptual final landform and associated final land uses for the site;	within 2 years of the date of notifying the Department of commencement of development	Review of Final Land Use Options Plan	Final Land Use Options Plan	Compliant	
		(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;	within 2 years of the date of notifying the Department of commencement of development	Review of Final Land Use Options Plan	Final Land Use Options Plan	Compliant	

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		(e) inform the Rehabilitation Management Plan (prepared in accordance with condition 26 of this consent); and	within 2 years of the date of notifying the Department of commencement of development	Review of Rehabilitation Management Plan	Rehabilitation Management Plan	Compliant	
		(f) be reviewed every 7 years to account for applicable land use priorities, and if necessary updated.	Every 7 years	Review of Final Land Use Options Plan	Final Land Use Options Plan	Compliant	
3		Rehabilitation Management Plan					
3	26	The Applicant must prepare a Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with OEH, DRE, DPI Water and Camden Council;	Prior to undertaking quarrying operations in the extension area	Correspondence	Correspondence	Compliant	
		(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	Correspondence	Correspondence	Compliant	
		(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);	Prior to undertaking quarrying operations in the extension area	Review of Rehabilitation Management Plan	Rehabilitation Management Plan	Compliant	
		(d) 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;	Prior to undertaking quarrying operations in the extension area	Review of Rehabilitation Management Plan	Rehabilitation Management Plan	Compliant	
		(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	

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		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	
		(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	Correspondence	Correspondence	Compliant	
		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.	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 Annual Rehabilitation Report	Compliant	Quote received to spray mulch the pit bund. The Greendale road bund has not been constructed to date and is being addressed with Mod-2.
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	Absence of complaints.	Compliant	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	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	No waste has been imported onto the site.

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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	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	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	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.
		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	
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	Compliant	
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: 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.	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					

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Schedule	Condition	Condition Text	Timing for Compliance	Monitoring Methodology	Evidence	Details of compliance status	Comments
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	
		(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: 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	Within 6 months of the Secretary requiring preparation of the strategy	Not applicable	Environmental Management Strategy	Compliant	
		(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.	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					
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 managmeent plans developed as a result of the exceedences.	Compliant	
5		Management Plan Requirements					

Bringelly Brickworks Extension Project
Applicable Period: 1 July 2024 to 30 June 2025
SSD Conditions: SSD_5684 Mod 1

Compliant	
Non Compliant	
Not Triggered	A requirement has an activation or timing trigger that has not been met at thephase 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	Comments
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: 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.	As required	Review of relevant Management Plans	Relevant Management Plans	Compliant	
		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: 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.	End of September each year.	Review of all data and plans for site for the financial year	Monitoring data	Compliant	
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	Non Compliant	No evidence provided to show review of strategies, plans and programs after submission of Annual Review or IEA.
5		Community Consultative Committee					

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Applicable Period: 1 July 2024 to 30 June 2025
SSD Conditions: SSD_5684 Mod 1

Compliant	
Non Compliant	
Not Triggered	A requirement has an activation or timing trigger that has not been met at thephase 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	Comments
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: 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	Prior to undertaking quarrying operations in the extension area	Correspondence	Correspondence	Non Compliant	The CCC has been dissolved, at the request of the committee.
		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					
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 February 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	Non Compliant	No evidence provided to show review of strategies, plans and programs after submission of IEA.
5		**ACCESS TO INFORMATION**					

Bringelly Brickworks Extension Project
Applicable Period: 1 July 2024 to 30 June 2025
SSD Conditions: SSD_5684 Mod 1

Compliant

Non Compliant

Not Triggered — A requirement has an activation or timing trigger that has not been met at thephase 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	Comments
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: 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	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 Metrological 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 ºC and 3ºC/100 m and wind speeds greater than 2 m/s at 10 m above ground level; or (c) temperature inversion conditions greater than 3ºC/100 m.	When meterological 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 meterological station.	Meterological 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	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 date, 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	Monitoring has been undertaken as required by consent conditions.

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Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
1	Administrative Conditions		
A1.1	**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. **Scheduled Activity** **Fee Based Activity** **Scale** Ceramic Works Ceramics production > 50000 - 200000 T produced Crushing, grinding or separating Crushing, Grinding or Separating > 100000 - 500000 T processed Extractive Activities Land-based extractive activity > 100000 - 500000 Textracted, processed or stored Mining for minerals Mining for Minerals > 100000 - 500000 T produced	Compliant	
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	**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.	Compliant	
2	**Discharges to Air and Water and Applications to Land**		
P1.1	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. ***Air*** **EPA identi-fication 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	
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	

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Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
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.	Compliant	
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	**Load limits** 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.	Compliant	
L2.2	The actual load of an assessable pollutant must be calculated in accordance with the relevant load calculation protocol.	Compliant	
L3.1	**Concentration limits** For each monitoring/discharge point or utilisation area specified in the table\s 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.	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	
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	

Water and land

EPA Identi-fication 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.

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.

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Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
L3.4	**Air Concentration Limits** **POINT 2** <table><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><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></table>	Compliant	
L3.5	**Water and/or Land Concentration Limits** **POINT 1** <table><tr><th>Pollutant</th><th>Units of Measure</th><th>50 percentile concentration limit</th><th>90 percentile concentration limit</th><th>3DGM concentration limit</th><th>100 percentile concentration limit</th></tr><tr><td>Oil and Grease</td><td>milligrams per litre</td><td></td><td></td><td></td><td>10</td></tr><tr><td>pH</td><td>pH</td><td></td><td></td><td></td><td>6.5-8.5</td></tr><tr><td>Turbidity</td><td>nephelometric turbidity units</td><td></td><td></td><td></td><td>150</td></tr></table>**POINT 5** <table><tr><th>Pollutant</th><th>Units of Measure</th><th>50 percentile concentration limit</th><th>90 percentile concentration limit</th><th>3DGM concentration limit</th><th>100 percentile concentration limit</th></tr><tr><td>Conductivity</td><td>microsiemens per centimetre</td><td></td><td></td><td></td><td>1450</td></tr><tr><td>Oil and Grease</td><td>milligrams per litre</td><td></td><td></td><td></td><td>10</td></tr><tr><td>pH</td><td>pH</td><td></td><td></td><td></td><td>6.5-8.5</td></tr><tr><td>Turbidity</td><td>nephelometric turbidity units</td><td></td><td></td><td></td><td>150</td></tr></table>	Compliant	
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	
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	

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Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
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	Records are kept of all monitoring and reported in the EPL Annual Return, the ARR and this Annual Review.
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	Records are kept of all monitoring and reported in the EPL Annual Return, the ARR and this Annual Review.
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	Contractors or PGH sampling staff maintain these records.

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Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
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**	Compliant	
M2.3	**Water and/ or Land Monitoring Requirements**	Compliant	

M2.2 — 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 — POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
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

M2.3 — 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

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Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
M3.1	**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. 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 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".	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	**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.	Compliant	
M5.1	**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.	Compliant	There have been no complaints in the last 12 months.
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.	Compliant	There have been no complaints in the last 12 months.
M5.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Compliant	There have been no complaints in the last 12 months.
M5.4	The record must be produced to any authorised officer of the EPA who asks to see them.	Compliant	There have been no request for complaints records to date.
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	A phone line is operated and the number is signposted at the entrance to the site.

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Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
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	A phone line is operated and the number is signposted at the entrance to the site.
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	An Annual Return has been submitted each year.
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	An Annual Return has been submitted each year.
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	

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Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
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	
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	

Bringelly Brickworks Extension Project

EPL1808

Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
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	Compliant	
8	**Special Conditions**		
E1.1	Summary Table of Special Conditions Completed	Compliant	

G2.1 – Completed Programs:

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

E1.1 – Summary Table of Special Conditions Completed:

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

Bringelly Brickworks Extension Project

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

Compliant
Non Compliant
Not Triggered

Number	Condition	Details of compliance status	Comments
1 a)	Within 90 days from the date of grant or renewal of this mining lease, the lease holder must give each landholder notice in writing: (i) that this mining lease has been granted or renewed; and (ii) whether the lease includes the surface. The notice must include a plan identifying the lease area and each landholder and individual land parcel within the lease area.	Compliant	PGH are the landholder.
1 b)	If there are ten or more landholders to which notice must be given, the lease holder will be taken to have complied with condition 1(a) if a notice complying with condition 1(a) is published in a newspaper circulating in the region where the lease area is situated.	Compliant	PGH are the landholder.
2	Security The lease holder is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations under the mining lease, including obligations under the mining lease that may arise in the future. The amount of the security deposit to be provided has been assessed at $776,000.	Compliant	
3	**Cooperation Agreement** The lease holder must make every reasonable attempt, and be able to demonstrate its attempts to the satisfaction of the Secretary, to enter into a cooperation agreement with the holder(s) of any overlapping authorisations issued under the Mining Act 1992 and petroleum titles issued under the Petroleum (Onshore) Act 1991. The cooperation agreement should address but not be limited to: • access arrangements • operational interaction procedures • dispute resolution • information exchange • well location • timing of drilling • potential resource extraction conflicts; and • rehabilitation issues.	Compliant	
4	**Assessable Prospecting Operations** (a) The lease holder must not carry out any assessable prospecting operation on land over which this lease has been granted unless: (i) it is carried out in accordance with any necessary development consent; or (ii) if development consent is not required, the prior written approval of the Minister has been obtained. (b) The Minister may require the lease holder to provide such information as required to assist the Minister to consider an application for approval. (c) An approval granted by the Minister under this condition may be granted subject to terms. (d) The lease holder must comply with the approval granted to the holder under this condition.	Compliant	
	Exploration Reporting Note: Exploration Reports (Geological and Geophysical) The lease holder must lodge reports in accordance with the requirements in section 163C of the Mining Act 1992 and clauses 59, 60 and 61 of the Mining Regulation 2016 as well as any further requirements issued by the Secretary under clause 62 of the Mining Regulation. Guidelines for the structure, content and data format requirements for reports are set out in the Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales	Compliant	An exploration report is submitted annualy

Bringelly Brickworks Extension Project

Water Licence 10BL605770 for monitoring bores

Compliant
Non Compliant
Not Triggered

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	Not required to date.
4	If during the construction of the work, saline ot polluted water is encountered above the producing aquifer, such water shall be sealed offby: 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	Not required to date.
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.	Compliant	Not required to date.
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.	Compliant	Not required to date.
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	There is no discharge from the monitoring bores.
8	Works used for the purpose of conveying, distributing or storing water taken by means of the licenced work shall not be costructed or installed so as to obstruct the reasonable passage of flood waters flowing into or from a river.	Compliant	Not required to date.
9	If the bore authorised by this licence is lines with steel or plastic casing the inside diameter of that casing shall not exceed 220mm.	Compliant	bore diameters are approxiamtely 60mm.
10	Water shall not be pumped from the bore authorised by this licence from any purpose other than groundwater investigation.	Compliant	

Bringelly Brickworks Extension Project

Water Licence 10BL605770 for monitoring bores

Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
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.	Compliant	Not required to date.
12	Condition 11 shall have no force or effect if: 1) at the relevant time there is wothj 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 addtion of casing with a diameter not exceeding 220mm.	Compliant	Not required to date.

Bringelly Brickworks Extension Project

Water Licence WAL26259- Surface Water

Compliant
Non Compliant
Not Triggered

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.

Bringelly Brickworks Extension Project

Water Licence WAL26259- Surface Water

Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
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.	Compliant	No water has been drawn from the WALs over the reporting period.

Bringelly Brickworks Extension Project

Water Licence WAL26257- Surface Water

Compliant
Non Compliant
Not Triggered

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	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.
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	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.

Bringelly Brickworks Extension Project

Water Licence WAL26257- Surface Water

Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
MA2455-00012	Water must be used for the purpose of domestic consumption and stock watering.	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.	Compliant	No water has been drawn from the WALs over the reporting period.

Bringelly Brickworks Extension Project

Water Licence WAL25987- Surface Water

Compliant
Non Compliant
Not Triggered

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	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.
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	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.

Bringelly Brickworks Extension Project

Water Licence WAL25987- Surface Water

Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
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.	Compliant	No water has been drawn from the WALs over the reporting period.

Bringelly Brickworks Extension Project

Water Approval 10CA104657 for WAL26259

Compliant
Non Compliant
Not Triggered

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		
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	No water has been drawn from the WALs over the reporting period.
MW2435-00001	Water must be taken through the approved metering equipment installed on the water supply work authorised by this approval.	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.
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.
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	No water has been drawn from the WALs over the reporting period.

Bringelly Brickworks Extension Project

Water Approval 10CA104657 for WAL26259

Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
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.
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	No water has been drawn from the WALs over the reporting period.
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.	Compliant	No water has been drawn from the WALs over the reporting period.
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.	Compliant	No water has been drawn from the WALs over the reporting period.
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	No water has been drawn from the WALs over the reporting period.

Bringelly Brickworks Extension Project

Water Approval 10CA104657 for WAL26259

Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
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	No water has been drawn from the WALs over the reporting period.
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	No water has been drawn from the WALs over the reporting period.

Bringelly Brickworks Extension Project

Water Approval 10CA104630 for WAL26257 & WAL25987

Compliant
Non Compliant
Not Triggered

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		
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	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.
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	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.

Bringelly Brickworks Extension Project

Water Approval 10CA104630 for WAL26257 & WAL25987

Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
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.
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	No water has been drawn from the WALs over the reporting period.
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.	Compliant	No water has been drawn from the WALs over the reporting period.
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.	Compliant	No water has been drawn from the WALs over the reporting period.
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	No water has been drawn from the WALs over the reporting period.
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	No water has been drawn from the WALs over the reporting period.
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	No water has been drawn from the WALs over the reporting period.

Bringelly Brickworks Extension Project

Water Approval 10CA104630 for WAL26257 & WAL25987

Compliant
Non Compliant
Not Triggered

Condition	Commitment	Details of compliance status	Comments
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	No water has been drawn from the WALs over the reporting period.

Appendix G
Quarry Production Data - MEG

Welcome Joe Gauci

Logout

Confirmation

Client name:	BRINGELLY CLAY MINE
Client ID:	140207573
RIMS ID:	323188
Reference number:	778205333621
Period:	1 July 2024 - 30 June 2025
Lodgement date:	11 July 2025
Return due date:	31 July 2025
Royalty amount due:	**$22,837.15**

Payment options

Appendix H
Stack Testing Report

Experts in air quality, odour and emission monitoring.

Annual Emission Testing Report

Report: R016960

PGH Bricks & Pavers Pty Ltd, Bringelly Plant

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.

Document Information

Client Name:	PGH Bricks & Pavers Pty Ltd (Bringelly)
Report Number:	R016960
Date of Issue:	2 May 2025
Attention:	Abhi Ghedia
Address:	Lot 2 Greendale Rd Bringelly NSW 2556
Testing Laboratory:	Ektimo Pty Ltd, ABN 86 600 381 413

Report Authorisation

Zak Hedges **Air Monitoring Consultant**	NATA Accredited Laboratory No. 14601	**Aaron Davis** **NATA Signatory**

This document is confidential and is prepared for the exclusive use of PGH Bricks & Pavers Pty Ltd (Bringelly) and those granted permission by PGH Bricks & Pavers Pty Ltd (Bringelly). 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 terms of NATA accreditation as described in the Test Methods table. This does not include calculations that use data supplied by third-parties, comments, conclusions, or recommendations based upon the results. Refer to Test Methods section 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 & Overview

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

Monitoring was performed as follows:

Location	Test Date	Test Parameters*
EPA 2 – Kiln Stack	19 December 2024	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 this report.

1.3 Licence Comparison

The following licence comparison table shows that all analytes 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	Detected Values 19-Dec-24	
					Concentration (mg/m^3)	Mass Rate (g/min)
2	Kiln Exhaust Stack	Total Solid Particles	mg/m^3 at STP dry	100	**7.6**	6.9
		Nitrogen Oxides (as NO_2)	mg/m^3 at STP dry	2,000	**84**	76
		Total Fluoride (as HF)	mg/m^3 at STP dry	50	**5.7**	5.2

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

2 Results

2.1 EPA 2 – Kiln Stack

Date	19/12/2024	**Client**	PGH Bricks and Pavers Pty. Ltd
Report	R016960	**Stack ID**	Kiln
Licence No.	1808	**Location**	Bringelly
Ektimo Staff	Zak Hedges and Ahmad Ramiz	**State**	NSW
Process Conditions	Please refer to client records		241206

Stack Parameters		
Moisture content, %v/v	4	
Gas molecular weight, g/g mole	28.7 (wet)	29.2 (dry)
Gas density at STP, kg/m³	1.28 (wet)	1.30 (dry)
Gas density at discharge conditions, kg/m³	0.83	
Gas Flow Parameters		
Flow measurement time(s) (hhmm)	1014 & 1120	
Temperature, °C	147	
Temperature, K	420	
Ambient pressure, kPa	101	
Stack pressure, kPa	101	
Velocity at sampling plane, m/s	15	
Volumetric flow rate, actual, m³/s	24	
Volumetric flow rate (wet STP), m³/s	16	
Volumetric flow rate (dry STP), m³/s	15	
Mass flow rate (wet basis), kg/h	73000	

Gas Analyser Results	Average		Minimum		Maximum	
Sampling time	1016 - 1118		1016 - 1118		1016 - 1118	
	Concentration mg/m³	Mass Rate g/min	Concentration mg/m³	Mass Rate g/min	Concentration mg/m³	Mass Rate g/min
Combustion Gases						
Nitrogen oxides (as NO_2)	84	76	51	47	92	84
	Concentration % v/v		Concentration % v/v		Concentration % v/v	
Carbon dioxide	2		1.3		2.3	
Oxygen	18.3		17.8		19.5	

Halides & Halogens e.g HCl, Cl2, HF	Results	
Sampling time	0925-1025	
	Concentration mg/m³	Mass Rate g/min
Chloride (as HCl)	18	16

Isokinetic Results	Results	
Sampling time	1016-1118	1016-1118 (PM10)
	Concentration mg/m³	Mass Rate g/min
Solid Particles	7.6	6.9
Fine particulates (PM10)	7	6.4
Coarse Particulates	0.57	0.52
Sulfur dioxide	12	11
Sulfur trioxide and/or Sulfuric acid (as SO3)	55	50
Isokinetic Sampling Parameters	Isokinetic	PM10
Sampling time, min	60	60
Isokinetic rate, %	96	100
Gravimetric analysis date (total particulate)	06-01-2025	
Gravimetric analysis date (PM_{10})	06-01-2025	

Date	19/12/2024	**Client**	PGH Bricks and Pavers Pty. Ltd
Report	R016960	**Stack ID**	Kiln
Licence No.	1808	**Location**	Bringelly
Ektimo Staff	Zak Hedges and Ahmad Ramiz	**State**	NSW
Process Conditions	Please refer to client records.		241206

Stack Parameters		
Moisture content, %v/v	3.7	
Gas molecular weight, g/g mole	28.9 (wet)	29.3 (dry)
Gas density at STP, kg/m³	1.29 (wet)	1.31 (dry)
Gas density at discharge conditions, kg/m³	0.83	
Gas Flow Parameters		
Flow measurement time(s) (hhmm)	0900 & 1014	
Temperature, °C	151	
Temperature, K	424	
Ambient pressure, kPa	101	
Stack pressure, kPa	101	
Velocity at sampling plane, m/s	15	
Volumetric flow rate, actual, m³/s	25	
Volumetric flow rate (wet STP), m³/s	16	
Volumetric flow rate (dry STP), m³/s	15	
Mass flow rate (wet basis), kg/h	73000	

Isokinetic Results	Results	
Sampling time	0908-1009	
	Concentration mg/m³	Mass Rate g/min
Total fluoride (as HF)	5.7	5.2
Isokinetic Sampling Parameters		
Sampling time, min	60	
Isokinetic rate, %	96	

3 Sample Plane Compliance

3.1 EPA 2 – Kiln Stack

Sampling Plane Details	
Source tested	Kiln
Pollution control equipment	Filter baghouse
Sampling plane dimensions	1440 mm
Sampling plane area	1.63 m²
Sampling port size, number & depth	4" BSP (x2), 125 mm
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 AS 4323.1	Ideal sampling plane

4 Plant Operating Conditions

The below plant operating conditions have been supplied by PGH Bricks & Pavers Pty Ltd (Bringelly) personnel.

Sampling date	19 December 2024
Product	Scratch Common
Push rate	24 Cars/Day
Soak temperature	1,049°C

Based on information received from PGH Bricks & Pavers Pty Ltd (Bringelly) personnel, it is our understanding that samples were collected during typical plant operations.

5 Test Methods

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

Parameter	Sampling method	Analysis method	Uncertainty*	NATA accredited Sampling	NATA accredited Analysis
Sampling points - Selection	NSW EPA TM-1 (AS 4323.1)	NA	NA	✓	NA
Flow rate, temperature & velocity	NSW EPA TM-2 (USEPA Method 2)	NSW EPA TM-2 (USEPA Method 2)	8%, 2%, 7%	NA	✓
Moisture content	NSW EPA TM-22 (USEPA Method 4)	NSW EPA TM-22 (USEPA Method 4)	8%	✓	✓
Molecular weight	NA	NSW EPA TM-23 (USEPA Method 3)	not specified	NA	✓
Dry gas density	NA	NSW EPA TM-23 (USEPA Method 3)	not specified	NA	✓
Carbon dioxide	NSW EPA TM-24 (USEPA Method 3A)	NSW EPA TM-24 (USEPA Method 3A)	13%	✓	✓
Carbon monoxide	NSW EPA TM-32 (USEPA Method 10)	NSW EPA TM-32 (USEPA Method 10)	12%	✓	✓
Nitrogen oxides	NSW EPA TM-11 (USEPA Method 7E)	NSW EPA TM-11 (USEPA Method 7E)	12%	✓	✓
Oxygen	NSW EPA TM-25 (USEPA Method 3A)	NSW EPA TM-25 (USEPA Method 3A)	13%	✓	✓
Sulfur dioxide	NSW EPA TM-4 (USEPA Method 8)	Ektimo 235	16%	✓	✓[†k]
Particulate matter (PM_{10} & $PM_{2.5}$)	NSW EPA OM-5 (USEPA Method 201A)	NSW EPA OM-5 (USEPA Method 201A)	6%	✓	✓[††]
Coarse particulates	NSW EPA OM-9	NSW EPA OM-9	not specified	✓	✓[††]
Solid particles (total)	NSW EPA TM-15 (AS 4323.2)	NSW EPA TM-15 (AS 4323.2)	3%	✓	✓[††]
Fluorine & fluorine compounds[1]	NSW EPA TM-9 (USEPA Method 13B)	Ektimo 235	25%	✓	✓[†]
Hydrogen chloride	NSW EPA TM-8 (USEPA Method 26)	Ektimo 235	14%	✓	✓[†i]
Sulfuric acid mist and/or sulfur trioxide	NSW EPA TM-3 (USEPA Method 8)	Ektimo 235	16%	✓	✓[†m]

111224

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

[†] Analysis performed by Ektimo. Results were reported to Ektimo on.
- 20 January 2025 in report LV-006709[Halides & Halogens].
- 20 January 2025 in report LV-006719[Total F].
- 20 January 2025 in report LV-006737[SOx].

[††] Gravimetric analysis conducted at the Ektimo NSW laboratory.

[1] Sampling follows USEPA Method 13B and analysis follows Ektimo 235 (ion chromatography which uses the same principle as the NSW EPA approved alternative analysis method USEPA SW-846 Method 9056A).

[i] Includes analysis of chlorine/chloride by Ektimo 235 which uses the same principle as USEPA Method 26/26A.

[k] Includes analysis of SO_2 by Ektimo 235 which uses the same principle as USEPA SW-846 Method 9056A which is an approved alternative to the analytical procedure of USEPA Method 6/8.

[m] Includes analysis of SO_3/H_2SO_4 by Ektimo 235 which uses the same principle as USEPA SW-846 Method 9056A which is an approved alternative to the analytical procedure of USEPA Method 8.

6 Deviations to Test Methods

TM-9 FLUORINE

Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (NSW EPA) (2022) specifies TM-9 (USEPA 13B) for measurement of total fluoride emissions.

Ektimo conducts sampling according to USEPA Method 13B and analysis follows Ektimo 235 (ion chromatography which uses the same principle as the NSW EPA approved alternative analysis method USEPA SW-846 Method 9056A).

7 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 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.

Unless specifically noted, all samples were collected and handled in accordance with Ektimo's QA/QC standards.

8 Definitions

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

% v/v	Volume to volume ratio, dry basis
~	Approximately
<	Less than
>	Greater than
≥	Greater than or equal to
AS	Australian Standard
BaP-TEQ	Benzo(a)pyrene toxic equivalents
BSP	British standard pipe
CEM/CEMS	Continuous emission monitoring/Continuous emission monitoring system
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.
DECC	Department of Environment & Climate Change (NSW)
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.
DWER	Department of Water and Environmental Regulation (WA)
DEHP	Department of Environment and Heritage Protection (QLD)
EPA	Environment Protection Authority
FTIR	Fourier transform infra-red
ISC	Intersociety Committee, Methods of Air Sampling and Analysis
ISO	International Organisation for Standardisation
ITE	Individual threshold estimate
I-TEQ	International toxic equivalents
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
NIOSH	National Institute of Occupational Safety and Health
NT	Not tested or results not required
OM	Other approved method
OU	Odour unit. One OU is that concentration of odorant(s) at standard conditions that elicits a physiological response from a panel equivalent to that elicited by one Reference Odour Mass (ROM), evaporated in one cubic metre of neutral gas at standard conditions.
PM_{10}	Particulate matter having an equivalent aerodynamic diameter less than or equal to 10 microns (μm).
$PM_{2.5}$	Particulate matter having an equivalent aerodynamic diameter less than or equal to 2.5 microns (μm).
PSA	Particle size analysis. PSA provides a distribution of geometric diameters, for a given sample, determined using laser diffraction.
RATA	Relative accuracy test audit
Semi-quantified VOCs	Unknown VOCs (those for which an analytical standard is not available), are identified by matching the mass spectrum of the chromatographic peak to the NIST Standard Reference Database (version 14.0), with a match quality exceeding 70%. An estimated concentration is determined by matching the area of the peak with the nearest suitable compound in the analytical calibration standard mixture.
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.
TM	Test method
TOC	Total organic carbon. This is the sum of all compounds of carbon which contain at least one carbon-to-carbon bond, plus methane and its derivatives.
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.
Vic EPA	Victorian Environment Protection Authority
VOC	Volatile organic compound. A carbon-based chemical compound with a vapour pressure of at least 0.010 kPa at 25°C or having a corresponding volatility under the given conditions of use. VOCs may contain oxygen, nitrogen and other elements. VOCs do not include carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonate salts.
WHO05-TEQ	World Health Organisation toxic equivalents
XRD	X-ray diffractometry
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

9 Appendices

Appendix A: Site Image

Image 1. EPA 2 – Kiln Stack

Appendix B: Chain(s) of Custody

Ektimo

Checked at Ektimo Dispatch by: ZH 2/1/25
Sign/Date

Samples received in good order: Ako 7/1/25
Sign/Date

Sample ID	Job No.	Analysis Required	Units Required	Analytical Lab	Purchase Order No.	Ektimo Contact	Notes	TAT Required (days)
[illegible]	[illegible]	Total F	ug/sample	Ektimo		Zak Hedges	— Filter Blank	
[illegible]	[illegible]	Total F	ug/litre	Ektimo		Zak Hedges	Impinger Blank	
[illegible]	[illegible]	Total F	ug/sample	Ektimo		Zak Hedges	— Filter	
[illegible]	[illegible]	Total F	ug/litre	Ektimo		Zak Hedges	Impinger A+B	
[illegible]	[illegible]	HCl	ug/litre	Ektimo		Zak Hedges	Impinger Blank	
[illegible]	[illegible]	HCl	ug/litre	Ektimo		Zak Hedges	Impinger A+B	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger A+B	
[illegible]	[illegible]	Total F	ug/sample	Ektimo		Zak Hedges	— Filter	
[illegible]	[illegible]	Total F	ug/litre	Ektimo		Zak Hedges	Impinger A+B	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger Blank	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger Blank	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger B+C	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger A	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger B+C	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger A	
[illegible]	[illegible]	Total F	ug/sample	Ektimo		Zak Hedges	— Filter	
[illegible]	[illegible]	Total F	ug/litre	Ektimo		Zak Hedges	Impinger A+B	
[illegible]	[illegible]	HCl	ug/litre	Ektimo		Zak Hedges	Impinger A+B	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger A	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger B+C	

logged Ako 7/1/25

Appendix C: Laboratory Results

Ektimo

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+61 2 4003 3296
info@ektimo.com.au
ektimo.com.au

ABN 86 600 381 413

CERTIFICATE OF ANALYSIS

Testing Laboratory:	Ektimo 26 Redland Drive Mitcham, VIC 3132
Report Number:	LV-006719
Job Number:	R016960
Date of Issue:	20/01/2025
Attention:	PGH Bringelly
Address:	Lot 2 Greendale Rd Bringelly NSW 2556
Date samples received:	6/01/2025
Number of samples received:	[illegible]
Date samples analysed:	15/01/2025
No of samples analysed:	[illegible]
Test method(s) used:	Ektimo 235

Comments

QC Acceptance Criteria:

Parameter	Criteria	Pass/Fail
Standard Curve	$R^2 > 0.99$	Pass
Range	All samples <110% of highest standard	Pass
Repeat samples	Between 80% - 120%	Pass
Method Blanks	All method blanks < PQL	Pass
QC sample	2 standard deviations of theoretical	Pass
Chemical Expiry	All chemicals within expiry date	Pass

This report supersedes any previous report(s) with this reference. Sample(s) have been analysed as received.

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REPORT AUTHORISATION

Version: 141124

Annie Kolokithas
Laboratory Technician

Cappi Tuffery
Laboratory Chemist

NATA Accredited Laboratory 1450

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

Ektimo Analytical Results

Report No. LV-006719
Job No. R016960
Client Name: PGH Bringelly

Parameter	Analyte	Units	N 23034 PGH Bringelly All Locations Filter Blank (HF)	N 23036 PGH Bringelly Dryer 2 Filter	N 23042 PGH Bringelly Dryer 3 Filter	N 23083 PGH Bringelly Kiln Filter
Sample Volume		mL	40	40	40	40
Hydrogen fluoride (HF)	F^-	µg/sample	<4	22.96	13.56	176.84
PQL	<	µg/sample	4	4	4	4

Results page 2 of 2

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CERTIFICATE OF ANALYSIS

Testing Laboratory:	Ektimo 26 Redland Drive Mitcham, VIC 3132
Report Number:	LV-006737
Job Number:	R016960
Date of Issue:	20/01/2025
Attention:	PGH Bringelly
Address:	Lot 2 Greendale Rd Bringelly NSW 2556
Date samples received:	6/01/2025
Number of samples received:	8
Date samples analysed:	17/01/2025
No of samples analysed:	8
Test method(s) used:	Ektimo 235

Comments

QC Acceptance Criteria:

Parameter	Criteria	Pass/Fail
Standard Curve	$R^2 > 0.99$	Pass
Range	All samples <110% of highest standard	Pass
Repeat samples	Between 80% - 120%	Pass
Method Blanks	All method blanks < PQL	Pass
QC sample	2 standard deviations of theoretical	Pass
Chemical Expiry	All chemicals within expiry date	Pass

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Ektimo

Analytical Results

Report No. LV-006737
Job No. R016960
Client Name: PGH Bringelly

Parameter	Analyte	Units	N 23044 PGH Bringelly All Locations Impinger Blank (SO2)	N 23046 PGH Bringelly Dryer 2 Impinger B+C	N 23048 PGH Bringelly Dryer 3 Impinger B+C	N 23089 PGH Bringelly Kiln Impinger B+C	N 23045 PGH Bringelly All Locations Impinger Blank (SO3)	N 23047 PGH Bringelly Dryer 2 Impinger A	N 23049 PGH Bringelly Dryer 3 Impinger A	N 23088 PGH Bringelly Kiln Impinger A
Sample Volume		mL	206	220	235	225	175	74	66	78
Sulfur dioxide (SO_2)	SO_4^{2-}	mg/L	0.21	0.25	0.28	66.00				
Sulfur trioxide (SO_3)	SO_4^{2-}	mg/L					0.21	<0.2	0.32	719.57
PQL	<	mg/L	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Results page 2 of 2

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CERTIFICATE OF ANALYSIS

Testing Laboratory:	Ektimo 26 Redland Drive Mitcham, VIC 3132
Report Number:	LV-006713
Job Number:	R016960
Date of Issue:	20/01/2025
Attention:	PGH Bringelly
Address:	Lot 2 Greendale Rd Bringelly NSW 2556
Date samples received:	6/01/2025
Number of samples received:	8
Date samples analysed:	15/01/2025
No of samples analysed:	8
Test method(s) used:	Ektimo 235

Comments

QC Acceptance Criteria:

Parameter	Criteria	Pass/Fail
Standard Curve	$R^2 > 0.99$	Pass
Range	All samples <110% of highest standard	Pass
Repeat samples	Between 80% - 120%	Pass
Method Blanks	All method blanks < PQL	Pass
QC sample	2 standard deviations of theoretical	Pass
Chemical Expiry	All chemicals within expiry date	Pass

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Ektimo

Analytical Results

Report No. LV-006713
Job No. R016960
Client Name: PGH Bringelly

Parameter	Analyte	Units	N 23035 PGH Bringelly All Locations Impinger Blank (HF)	N 23037 PGH Bringelly Dryer 2 Impinger A+B	N 23043 PGH Bringelly Dryer 3 Impinger A+B	N 23084 PGH Bringelly Kiln Impinger A+B	N 23038 PGH Bringelly All Locations Impinger Blank (HCl)	N 23039 PGH Bringelly Dryer 2 Impinger A+B	N 23040 PGH Bringelly Dryer 3 Impinger A+B	N 23086 PGH Bringelly Kiln Impinger A+B
Sample Volume		mL	202	200	190	209	148	31	29	23
Hydrogen chloride (HCl)	Cl	mg/L					<0.1	0.16	0.39	40.61
Hydrogen fluoride (HF)	F	mg/L	<0.1	0.64	<0.1	20.86				
PQL	<	mg/L	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Results page 2 of 2

Ektimo

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Emission Testing Report Dryers

Report: R016960-1

PGH Bricks & Pavers Pty Ltd, Bringelly Plant

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Document Information

Client Name:	PGH Bricks & Pavers Pty Ltd (Bringelly)
Report Number:	R016960-1
Date of Issue:	8 April 2025
Attention:	Abhi Ghedia
Address:	Lot 2 Greendale Rd Bringelly NSW 2556
Testing Laboratory:	Ektimo Pty Ltd, ABN 86 600 381 413

Report Authorisation

Zak Hedges **Air Monitoring Consultant**	NATA Accredited Laboratory No. 14601	**Aaron Davis** **Ektimo Signatory**

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Please note that only numerical results pertaining to measurements conducted directly by Ektimo are covered by Ektimo terms of NATA accreditation as described in the Test Methods table. This does not include calculations that use data supplied by third-parties, comments, conclusions, or recommendations based upon the results. Refer to Test Methods section 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.

1.2 Project Objective & Overview

The objective of the project was to quantify emissions from two (2) discharge points identified as Dryers No. 2 and 3.

Monitoring was performed as follows:

Location	Test Date	Test Parameters*
Dryer unit No. 2	18 December 2024	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)
Dryer unit No. 3		

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

All results are reported on a dry basis at STP.

1.3 Results Summary

The following table summarises the results of the testing programme.

Pollutant	Dryer 2		Dryer 3	
	Detected Values 18-Dec-24		Detected Values 18-Dec-24	
	Concentration (mg/m^3)	Mass Rate (g/min)	Concentration (mg/m^3)	Mass Rate (g/min)
Total Solid Particles	<3	<2	<4	<2
Fine Particulate Matter (PM_{10})	<3	<2	<3	<2
Coarse Particulates	<3	<1	<4	<2
Nitrogen Oxides (as NO_2)	<2	<1	<2	<1
Chloride (as HCl)	0.05	0.03	0.11	0.067
Total Fluoride (as HF)	0.21	0.15	<0.05	<0.03
Sulfur dioxide	<0.04	<0.03	<0.04	<0.03
Sulfur trioxide and/or Sulfuric acid (as SO_3)	<0.02	<0.01	<0.02	<0.01

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

2 Results

2.1 Dryer unit No. 2

Date	18/12/2024	**Client**	PGH Bricks and Pavers Pty. Ltd
Report	R016960	**Stack ID**	Dryer 2
Licence No.	1808	**Location**	Bringelly
Ektimo Staff	Zak Hedges, Mohamed Trabelsi	**State**	NSW
Process Conditions	Please refer to client records.		241206

Comments
The discharge is assumed to be composed of dry air and moisture

Stack Parameters		
Moisture content, %v/v	4	
Gas molecular weight, g/g mole	28.5 (wet)	29.0 (dry)
Gas density at STP, kg/m³	1.27 (wet)	1.29 (dry)
Gas density at discharge conditions, kg/m³	1.11	
Gas Flow Parameters		
Flow measurement time(s) (hhmm)	0955 & 1115	
Temperature, °C	38	
Temperature, K	311	
Ambient pressure, kPa	101	
Stack pressure, kPa	101	
Velocity at sampling plane, m/s	9	
Volumetric flow rate, actual, m³/s	14	
Volumetric flow rate (wet STP), m³/s	12	
Volumetric flow rate (dry STP), m³/s	12	
Mass flow rate (wet basis), kg/h	55000	

Isokinetic Results	Results	
Sampling time	1004-1110	
	Concentration mg/m³	Mass Rate g/min
Total fluoride (as HF)	0.21	0.15
Isokinetic Sampling Parameters		
Sampling time, min	64	
Isokinetic rate, %	100	

Date	18/12/2024	**Client**	PGH Bricks and Pavers Pty. Ltd
Report	R016960	**Stack ID**	Dryer 2
Licence No.	1808	**Location**	Bringelly
Ektimo Staff	Zak Hedges and Mohamed Trabelsi	**State**	NSW
Process Conditions	Please refer to client records.		241206

Stack Parameters		
Moisture content, %v/v	3.8	
Gas molecular weight, g/g mole	28.6 (wet)	29.0 (dry)
Gas density at STP, kg/m³	1.28 (wet)	1.29 (dry)
Gas density at discharge conditions, kg/m³	1.11	
Gas Flow Parameters		
Flow measurement time(s) (hhmm)	0841 & 0955	
Temperature, °C	38	
Temperature, K	312	
Ambient pressure, kPa	101	
Stack pressure, kPa	101	
Velocity at sampling plane, m/s	7.8	
Volumetric flow rate, actual, m³/s	12	
Volumetric flow rate (wet STP), m³/s	10	
Volumetric flow rate (dry STP), m³/s	10	
Mass flow rate (wet basis), kg/h	48000	

Gas Analyser Results	Average		Minimum		Maximum	
Sampling time	0848 - 0954		0848 - 0954		0848 - 0954	
	Concentration mg/m³	Mass Rate g/min	Concentration mg/m³	Mass Rate g/min	Concentration mg/m³	Mass Rate g/min
Combustion Gases						
Nitrogen oxides (as NO_2)	<2	<1	<2	<1	<2	<1
	Concentration % v/v		Concentration % v/v		Concentration % v/v	
Carbon dioxide	<0.4		<0.4		<0.4	
Oxygen	20.9		20.9		20.9	

Halides & Halogens e.g HCl, Cl2, HF	Results	
Sampling time	1213-1313	
	Concentration mg/m³	Mass Rate g/min
Chloride (as HCl)	0.05	0.03

Isokinetic Results	Results	
Sampling time	0848-0954	0848-0954 (PM10)
	Concentration mg/m³	Mass Rate g/min
Solid Particles	<3	<2
Fine particulates (PM10)	<3	<2
Coarse Particulates	<3	<1
Sulfur dioxide	<0.04	<0.03
Sulfur trioxide and/or Sulfuric acid (as SO3)	<0.02	<0.01
Isokinetic Sampling Parameters	Isokinetic	PM10
Sampling time, min	64	64
Isokinetic rate, %	101	113
Gravimetric analysis date (total particulate)	06-01-2025	
Gravimetric analysis date (PM_{10})	06-01-2025	

2.2 Dryer unit No. 3

Date	18/12/2024	**Client**	PGH Bricks and Pavers Pty. Ltd
Report	R016960	**Stack ID**	Dryer 3
Licence No.	1808	**Location**	Bringelly
Ektimo Staff	Zak Hedges and Mohamed Trabelsi	**State**	NSW
Process Conditions	Please refer to client records.		241206

Comments
The discharge is assumed to be composed of dry air and moisture

Stack Parameters		
Moisture content, %v/v	2.8	
Gas molecular weight, g/g mole	28.7 (wet)	29.0 (dry)
Gas density at STP, kg/m³	1.28 (wet)	1.29 (dry)
Gas density at discharge conditions, kg/m³	1.09	
Gas Flow Parameters		
Flow measurement time(s) (hhmm)	1001 & 1112	
Temperature, °C	44	
Temperature, K	317	
Ambient pressure, kPa	101	
Stack pressure, kPa	101	
Velocity at sampling plane, m/s	8.5	
Volumetric flow rate, actual, m³/s	13	
Volumetric flow rate (wet STP), m³/s	11	
Volumetric flow rate (dry STP), m³/s	11	
Mass flow rate (wet basis), kg/h	51000	

Isokinetic Results	Results	
Sampling time	1004-1110	
	Concentration mg/m³	Mass Rate g/min
Total fluoride (as HF)	<0.05	<0.03
Isokinetic Sampling Parameters		
Sampling time, min	64	
Isokinetic rate, %	100	

Date	18/12/2024	**Client**	PGH Bricks and Pavers Pty. Ltd
Report	R016960	**Stack ID**	Dryer 3
Licence No.	1808	**Location**	Bringelly
Ektimo Staff	Zak Hedges and Mohamed Trabelsi	**State**	NSW
Process Conditions	Please refer to client records		241206

Stack Parameters		
Moisture content, %v/v	3.6	
Gas molecular weight, g/g mole	28.6 (wet)	29.0 (dry)
Gas density at STP, kg/m³	1.28 (wet)	1.29 (dry)
Gas density at discharge conditions, kg/m³	1.09	
Gas Flow Parameters		
Flow measurement time(s) (hhmm)	1112 & 1235	
Temperature, °C	44	
Temperature, K	317	
Ambient pressure, kPa	101	
Stack pressure, kPa	101	
Velocity at sampling plane, m/s	8.3	
Volumetric flow rate, actual, m³/s	13	
Volumetric flow rate (wet STP), m³/s	11	
Volumetric flow rate (dry STP), m³/s	11	
Mass flow rate (wet basis), kg/h	50000	

Gas Analyser Results	Average		Minimum		Maximum	
Sampling time	1125 - 1231		1125 - 1231		1125 - 1231	
	Concentration mg/m³	Mass Rate g/min	Concentration mg/m³	Mass Rate g/min	Concentration mg/m³	Mass Rate g/min
Combustion Gases						
Nitrogen oxides (as NO_2)	<2	<1	<2	<1	<2	<1
	Concentration % v/v		Concentration % v/v		Concentration % v/v	
Carbon dioxide	<0.4		<0.4		<0.4	
Oxygen	20.9		20.9		20.9	

Halides & Halogens e.g HCl, Cl2, HF	Results	
Sampling time	1112-1212	
	Concentration mg/m³	Mass Rate g/min
Chloride (as HCl)	0.11	0.067

Isokinetic Results	Results	
Sampling time	1125-1231	1125-1231 (PM10)
	Concentration mg/m³	Mass Rate g/min
Solid Particles	<4	<2
Fine particulates (PM10)	<3	<2
Coarse Particulates	<4	<2
Sulfur dioxide	<0.04	<0.03
Sulfur trioxide and/or Sulfuric acid (as SO3)	<0.02	<0.01
Isokinetic Sampling Parameters	Isokinetic	PM10
Sampling time, min	64	64
Isokinetic rate, %	103	94
Gravimetric analysis date (total particulate)	06-01-2025	
Gravimetric analysis date (PM_{10})	06-01-2025	

3 Sample Plane Compliance

3.1 Dryer unit No. 2

Sampling Plane Details	
Source tested	Dryer
Pollution control equipment	No pollution control equipment
Sampling plane dimensions	1400 mm
Sampling plane area	1.54 m²
Sampling port size, number & depth	4" BSP (x2), 185 mm
Duct orientation & shape	Vertical Circular
Downstream disturbance	Exit 4 D
Upstream disturbance	Axial fan 0.5 D
No. traverses & points sampled	2 16
Sample plane conformance to AS 4323.1	Non-conforming
The sampling plane is deemed to be non-conforming due to the following reasons:	
The highest to lowest differential pressure ratio exceeds 9:1 or the highest to lowest gas velocity ratio exceeds 3:1	
The highest to lowest gas velocity ratio exceeds 1.6:1	
The upstream disturbance is <2D from the sampling plane	

3.2 Dryer unit No. 3

Sampling Plane Details	
Source tested	Dryer
Pollution control equipment	No pollution control equipment
Sampling plane dimensions	1400 mm
Sampling plane area	1.54 m²
Sampling port size, number & depth	4" BSP (x2), 185 mm
Duct orientation & shape	Vertical Circular
Downstream disturbance	Exit 4 D
Upstream disturbance	Axial fan 0.5 D
No. traverses & points sampled	2 16
Sample plane conformance to AS 4323.1	Non-conforming
The sampling plane is deemed to be non-conforming due to the following reasons:	
The upstream disturbance is <2D from the sampling plane	

4 Plant Operating Conditions

See PGH Bricks & Pavers Pty Ltd records for complete process conditions.

Based on information received from PGH Bricks & Pavers Pty Ltd (Bringelly) personnel, it is our understanding that samples were collected during typical plant operations.

5 Test Methods

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

Parameter	Sampling method	Analysis method	Uncertainty*	NATA accredited Sampling	NATA accredited Analysis
Sampling points - Selection	NSW EPA TM-1 (AS 4323.1)	NA	NA	✓	NA
Flow rate, temperature & velocity	NSW EPA TM-2 (USEPA Method 2)	NSW EPA TM-2 (USEPA Method 2)	8%, 2%, 7%	NA	✓
Moisture content	NSW EPA TM-22 (USEPA Method 4)	NSW EPA TM-22 (USEPA Method 4)	8%	✓	✓
Molecular weight	NA	NSW EPA TM-23 (USEPA Method 3)	not specified	NA	✓
Dry gas density	NA	NSW EPA TM-23 (USEPA Method 3)	not specified	NA	✓
Carbon dioxide	NSW EPA TM-24 (USEPA Method 3A)	NSW EPA TM-24 (USEPA Method 3A)	13%	✓	✓
Carbon monoxide	NSW EPA TM-32 (USEPA Method 10)	NSW EPA TM-32 (USEPA Method 10)	12%	✓	✓
Nitrogen oxides	NSW EPA TM-11 (USEPA Method 7E)	NSW EPA TM-11 (USEPA Method 7E)	12%	✓	✓
Oxygen	NSW EPA TM-25 (USEPA Method 3A)	NSW EPA TM-25 (USEPA Method 3A)	13%	✓	✓
Sulfur dioxide	NSW EPA TM-4 (USEPA Method 8)	Ektimo 235	16%	✓	✓[†k]
Particulate matter (PM_{10} & $PM_{2.5}$)	NSW EPA OM-5 (USEPA Method 201A)	NSW EPA OM-5 (USEPA Method 201A)	6%	✓	✓[††]
Coarse particulates	NSW EPA OM-9	NSW EPA OM-9	not specified	✓	✓[††]
Solid particles (total)	NSW EPA TM-15 (AS 4323.2)	NSW EPA TM-15 (AS 4323.2)	3%	✓	✓[††]
Fluorine & fluorine compounds[1]	NSW EPA TM-9 (USEPA Method 13B)	Ektimo 235	25%	✓	✓[†]
Hydrogen chloride	NSW EPA TM-8 (USEPA Method 26)	Ektimo 235	14%	✓	✓[†i]
Sulfuric acid mist and/or sulfur trioxide	NSW EPA TM-3 (USEPA Method 8)	Ektimo 235	16%	✓	✓[†m]

111224

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

[†] Analysis performed by Ektimo. Results were reported to Ektimo on.
- 20 January 2025 in report LV-006709[Halides & Halogens].
- 20 January 2025 in report LV-006719[Total F].
- 20 January 2025 in report LV-006737[SOx].

[††] Gravimetric analysis conducted at the Ektimo NSW laboratory.

[1] Sampling follows USEPA Method 13B and analysis follows Ektimo 235 (ion chromatography which uses the same principle as the NSW EPA approved alternative analysis method USEPA SW-846 Method 9056A).

[i] Includes analysis of chlorine/chloride by Ektimo 235 which uses the same principle as USEPA Method 26/26A.

[k] Includes analysis of SO_2 by Ektimo 235 which uses the same principle as USEPA SW-846 Method 9056A which is an approved alternative to the analytical procedure of USEPA Method 6/8.

[m] Includes analysis of SO_3/H_2SO_4 by Ektimo 235 which uses the same principle as USEPA SW-846 Method 9056A which is an approved alternative to the analytical procedure of USEPA Method 8.

6 Deviations to Test Methods

TM-9 FLUORINE

Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (NSW EPA) (2022) specifies TM-9 (USEPA 13B) for measurement of total fluoride emissions.

Ektimo conducts sampling according to USEPA Method 13B and analysis follows Ektimo 235 (ion chromatography which uses the same principle as the NSW EPA approved alternative analysis method USEPA SW-846 Method 9056A).

7 Quality Assurance/Quality Control Information

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Unless specifically noted, all samples were collected and handled in accordance with Ektimo's QA/QC standards.

8 Definitions

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

% v/v	Volume to volume ratio, dry basis
~	Approximately
<	Less than
>	Greater than
≥	Greater than or equal to
AS	Australian Standard
BaP-TEQ	Benzo(a)pyrene toxic equivalents
BSP	British standard pipe
CEM/CEMS	Continuous emission monitoring/Continuous emission monitoring system
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.
DECC	Department of Environment & Climate Change (NSW)
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.
DWER	Department of Water and Environmental Regulation (WA)
DEHP	Department of Environment and Heritage Protection (QLD)
EPA	Environment Protection Authority
FTIR	Fourier transform infra-red
ISC	Intersociety Committee, Methods of Air Sampling and Analysis
ISO	International Organisation for Standardisation
ITE	Individual threshold estimate
I-TEQ	International toxic equivalents
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
NIOSH	National Institute of Occupational Safety and Health
NT	Not tested or results not required
OM	Other approved method
OU	Odour unit. One OU is that concentration of odorant(s) at standard conditions that elicits a physiological response from a panel equivalent to that elicited by one Reference Odour Mass (ROM), evaporated in one cubic metre of neutral gas at standard conditions.
PM_{10}	Particulate matter having an equivalent aerodynamic diameter less than or equal to 10 microns (μm).
$PM_{2.5}$	Particulate matter having an equivalent aerodynamic diameter less than or equal to 2.5 microns (μm).
PSA	Particle size analysis. PSA provides a distribution of geometric diameters, for a given sample, determined using laser diffraction.
RATA	Relative accuracy test audit
Semi-quantified VOCs	Unknown VOCs (those for which an analytical standard is not available), are identified by matching the mass spectrum of the chromatographic peak to the NIST Standard Reference Database (version 14.0), with a match quality exceeding 70%. An estimated concentration is determined by matching the area of the peak with the nearest suitable compound in the analytical calibration standard mixture.
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.
TM	Test method
TOC	Total organic carbon. This is the sum of all compounds of carbon which contain at least one carbon-to-carbon bond, plus methane and its derivatives.
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.
Vic EPA	Victorian Environment Protection Authority
VOC	Volatile organic compound. A carbon-based chemical compound with a vapour pressure of at least 0.010 kPa at 25°C or having a corresponding volatility under the given conditions of use. VOCs may contain oxygen, nitrogen and other elements. VOCs do not include carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonate salts.
WHO05-TEQ	World Health Organisation toxic equivalents
XRD	X-ray diffractometry
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

Ektimo

9 Appendices

Appendix A: Chain(s) of Custody

Ektimo

Checked at Ektimo Dispatch by: Zl/JS 2/1/25 (Sign/Date)

Samples received in good order: Alo 7/1/25 (Sign/Date)

Sample ID	Job No.	Analysis Required	Units Required	Analytical Lab	Purchase Order No.	Ektimo Contact	Notes	TAT Required (days)
[illegible]	[illegible]	Total F	ug/sample	Ektimo		Zak Hedges	— Filter Blank	
[illegible]	[illegible]	Total F	ug/litre	Ektimo		Zak Hedges	Impinger Blank	
[illegible]	[illegible]	Total F	ug/sample	Ektimo		Zak Hedges	— Filter	
[illegible]	[illegible]	Total F	ug/litre	Ektimo		Zak Hedges	Impinger A+B	
[illegible]	[illegible]	HCl	ug/litre	Ektimo		Zak Hedges	Impinger Blank	
[illegible]	[illegible]	HCl	ug/litre	Ektimo		Zak Hedges	Impinger A+B	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger A+B	
[illegible]	[illegible]	Total F	ug/sample	Ektimo		Zak Hedges	— Filter	
[illegible]	[illegible]	Total F	ug/litre	Ektimo		Zak Hedges	Impinger A+B	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger Blank	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger Blank	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger B+C	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger A	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger B+C	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger A	
[illegible]	[illegible]	Total F	ug/sample	Ektimo		Zak Hedges	— Filter	
[illegible]	[illegible]	Total F	ug/litre	Ektimo		Zak Hedges	Impinger A+B	
[illegible]	[illegible]	HCl	ug/litre	Ektimo		Zak Hedges	Impinger A+B	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger A	
[illegible]	[illegible]	[illegible]	ug/litre	Ektimo		Zak Hedges	Impinger B+C	

logged Alo 7/1/25

Appendix B: Laboratory Results

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ABN 86 600 381 413

CERTIFICATE OF ANALYSIS

Testing Laboratory:	Ektimo 26 Redland Drive Mitcham, VIC 3132
Report Number:	LV-006719
Job Number:	R016960
Date of Issue:	20/01/2025
Attention:	PGH Bringelly
Address:	Lot 2 Greendale Rd Bringelly NSW 2556
Date samples received:	6/01/2025
Number of samples received:	[illegible]
Date samples analysed:	15/01/2025
No of samples analysed:	[illegible]
Test method(s) used:	Ektimo 235

Comments

QC Acceptance Criteria:

Parameter	Criteria	Pass/Fail
Standard Curve	$R^2 > 0.99$	Pass
Range	All samples <110% of highest standard	Pass
Repeat samples	Between 80% - 120%	Pass
Method Blanks	All method blanks < PQL	Pass
QC sample	2 standard deviations of theoretical	Pass
Chemical Expiry	All chemicals within expiry date	Pass

This report supersedes any previous report(s) with this reference. Sample(s) have been analysed as received.

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A formal Quality Control program is in place at Ektimo to monitor analyses performed in the laboratory and sampling conducted in the field. The program is designed to check where appropriate; the sampling reproducibility, analytical method, accuracy, precision and the performance of the analyst. The Laboratory Manager is responsible for the administration and maintenance of this program.

REPORT AUTHORISATION

Version: 141124

Annie Kolokithas Laboratory Technician	Cappi Tuffery Laboratory Chemist

NATA Accredited Laboratory 1450

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

Ektimo

Ektimo **Analytical Results**

Report No. LV-006719
Job No. R016960
Client Name: PGH Bringelly

Parameter	Analyte	Units	N 23034 PGH Bringelly All Locations Filter Blank (HF)	N 23036 PGH Bringelly Dryer 2 Filter	N 23042 PGH Bringelly Dryer 3 Filter	N 23083 PGH Bringelly Kiln Filter
Sample Volume		mL	40	40	40	40
Hydrogen fluoride (HF)	F^-	µg/sample	<4	22.96	13.56	176.84
PQL	<	µg/sample	4	4	4	4

Results page 2 of 2

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CERTIFICATE OF ANALYSIS

Testing Laboratory:	Ektimo 26 Redland Drive Mitcham, VIC 3132
Report Number:	LV-006737
Job Number:	R016960
Date of Issue:	20/01/2025
Attention:	PGH Bringelly
Address:	Lot 2 Greendale Rd Bringelly NSW 2556
Date samples received:	6/01/2025
Number of samples received:	8
Date samples analysed:	17/01/2025
No of samples analysed:	8
Test method(s) used:	Ektimo 235

Comments

QC Acceptance Criteria:

Parameter	Criteria	Pass/Fail
Standard Curve	$R^2 > 0.99$	Pass
Range	All samples <110% of highest standard	Pass
Repeat samples	Between 80% - 120%	Pass
Method Blanks	All method blanks < PQL	Pass
QC sample	2 standard deviations of theoretical	Pass
Chemical Expiry	All chemicals within expiry date	Pass

This report supersedes any previous report(s) with this reference. Sample(s) have been analysed as received.

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Version: 141124

Annie Kolokithas Laboratory Technician	Cappi Tuffery Laboratory Chemist

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Analytical Results

Report No. LV-006737
Job No. R016960
Client Name: PGH Bringelly

Parameter	Analyte	Units	N 23044 PGH Bringelly All Locations Impinger Blank (SO2)	N 23046 PGH Bringelly Dryer 2 Impinger B+C	N 23048 PGH Bringelly Dryer 3 Impinger B+C	N 23089 PGH Bringelly Kiln Impinger B+C	N 23045 PGH Bringelly All Locations Impinger Blank (SO3)	N 23047 PGH Bringelly Dryer 2 Impinger A	N 23049 PGH Bringelly Dryer 3 Impinger A	N 23088 PGH Bringelly Kiln Impinger A
Sample Volume		mL	206	220	235	225	175	74	66	78
Sulfur dioxide (SO_2)	SO_4^{2-}	mg/L	0.21	0.25	0.28	66.00				
Sulfur trioxide (SO_3)	SO_4^{2-}	mg/L					0.21	<0.2	0.32	719.57
PQL	<	mg/L	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Results page 2 of 2

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No of samples analysed:	8
Test method(s) used:	Ektimo 235

Comments

QC Acceptance Criteria:

Parameter	Criteria	Pass/Fail
Standard Curve	$R^2 > 0.99$	Pass
Range	All samples <110% of highest standard	Pass
Repeat samples	Between 80% - 120%	Pass
Method Blanks	All method blanks < PQL	Pass
QC sample	2 standard deviations of theoretical	Pass
Chemical Expiry	All chemicals within expiry date	Pass

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REPORT AUTHORISATION

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Analytical Results

Report No. LV-006713
Job No. R016960
Client Name: PGH Bringelly

Parameter	Analyte	Units	N 23035 PGH Bringelly All Locations Impinger Blank (HF)	N 23037 PGH Bringelly Dryer 2 Impinger A+B	N 23043 PGH Bringelly Dryer 3 Impinger A+B	N 23084 PGH Bringelly Kiln Impinger A+B	N 23038 PGH Bringelly All Locations Impinger Blank (HCl)	N 23039 PGH Bringelly Dryer 2 Impinger A+B	N 23040 PGH Bringelly Dryer 3 Impinger A+B	N 23086 PGH Bringelly Kiln Impinger A+B
Sample Volume		mL	202	200	190	209	148	31	29	23
Hydrogen chloride (HCl)	Cl^-	mg/L					<0.1	0.16	0.39	40.61
Hydrogen fluoride (HF)	F^-	mg/L	<0.1	0.64	<0.1	20.86				
PQL	<	mg/L	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Results page 2 of 2

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Appendix I:
Noise Monitoring

Noise Monitoring Assessment

PGH Bringelly Brickworks
Bringelly, NSW
Quarter Ending August 2024

Prepared for: PGH Bricks & Pavers Pty Ltd
July 2024
MAC190946-02RP15

Document Information

Noise Monitoring Assessment

PGH Bringelly Brickworks

Bringelly, NSW

Quarter Ending August 2024

Prepared for: PGH Bricks & Pavers Pty Ltd

60 Greendale Road

Bringelly NSW 2256

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Document ID	Date	Prepared By	Signed	Reviewed By	Signed
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Field officer: Daniel Brown

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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 60 Greendale Road, Bringelly, NSW.

This assessment has been undertaken for the quarterly period ending August 2024, and forms part of the annual noise monitoring program to address conditions outlined in the Development Consent and Environmental Protection Licence (EPL).

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;
- NSW Environment Protection Authority (EPA's), Approved Methods for the measurement and analysis of environmental noise in NSW, 2022;
- Environment Protection Licence EPL #1808 (EPL);
- Bringelly Brickworks Noise Management Plan (NMP Reference: BRK-BRI-NMP Version 4, dated 12 December 2019), 2019;
- Bringelly Brickworks Development Consent, 2015 (SSD_5684); and
- Standards Australia 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**.

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2 Noise Criteria

Section L4 of the projects EPL (EPL #1808) outlines the applicable operational noise criteria for all privately owned receivers surrounding the project. The criteria outlined in the EPL is reproduced below in **Table 1** along with relevant noise conditions:

> *L4.1 Noise from the mobile plant must not exceed an $L_{A10\ (15\ minute)}$ 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 $L_{A10\ (15\ minute)}$ noise emission criterion of 35dB(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 meters 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.*

Table 1 EPL Noise Criteria[1]

Receiver	Activity	All Operating Periods dB $L_{A10(15min)}$
All receiver locations	Mobile Plant	35
	Total Noise from Premises	

Note 1: Noise criteria adopted from the EPL (EPL #1808).

The Bringelly Brickworks NMP outlines the applicable noise criteria for representative residential receivers surrounding the site and are presented in **Table 2**. 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 2 Development Consent Noise Criteria[1]

Activity	Receiver	Day/Evening/Shoulder[2,3]	Night[2]	
		dB $L_{Aeq(15min)}$	dB $L_{Aeq(15min)}$	dB $L_{A1(max)}$[3]
Brickmaking and Quarrying	R1, R2	47	N/A	
	R3, R4, R14	46		
	R15, R17	45		
	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, see **Appendix B**) 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 (Reference: Muller Acoustic Consulting Pty Ltd, MAC190946LR1, 27 September 2019).

FIGURE 1

SITE LAYOUT

MAC190946-02

PGH Bringelly Brickworks

KEY

Monitoring Locations

Receivers

0 100 200 300 400 m

N

MAC Muller Acoustic Consulting

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3 Methodology

3.1 Locality

PGH Bringelly Brickworks is located at 60 Greendale Road, Bringelly, NSW. Receivers in the locality surrounding the site are primarily rural/residential and for consistency the naming conventions for each receiver have been retained from historic noise assessments. The monitoring locations with respect to PGH are presented in the locality plan shown in **Figure 1**.

3.2 Assessment Methodology

The attended noise measurements were conducted in general accordance with the procedures described in Standards Australia AS 1055:2018, "Acoustics - Description and Measurement of Environmental Noise" and as per Approved Methods for the measurement and analysis of environmental noise in NSW (EPA, 2022). Measurements were conducted using a Svantek Type 1, 971 noise analyser. All acoustic instrumentation used carries appropriate and current NATA (or manufacturer) calibration certificates with records of all calibrations maintained by MAC as per Approved Methods for the measurement and analysis of environmental noise in NSW (EPA, 2022) and complies with AS/NZS 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 ±0.5dBA.

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 Tuesday 9 July 2024 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 Meteorological Conditions

Weather data for the noise assessment period was sourced from Badgerys Creek AWS Site 67108 as well as operator measured conditions at each EPL nominated receiver location. The data was used to determine prevailing meteorological conditions at the time of the attended measurements. Meteorological data is presented in **Table 3** and are generally below levels where noise limits are applicable. Furthermore, wind speed at the microphone height satisfies requirements of Fact Sheet A of the NPI.

Table 3 Prevailing Meteorological Conditions

Date & Time	Badgerys Creek AWS Site 67108 (10m AGL)		Operator Measured Weather Monitoring Location (1.8m AGL)	
	Wind Direction	Wind (m/s)	Wind Direction	Wind (m/s)
09/07/2024 14:22	N	0.0	N	0.2
09/07/2024 14:43	NNE	0.5	N	0.2
09/07/2024 15:04	NE	1.6	N	0.2
09/07/2024 15:22	ENE	1.6	N	0.4
09/07/2024 15:45	N	0.0	N	0.3
09/07/2024 19:42	WSW	1.9	W	0.4
09/07/2024 20:00	WNW	1.6	W	0.2
09/07/2024 20:18	N	0.0	W	0.3
09/07/2024 20:42	N	0.0	W	0.1
09/07/2024 21:06	W	0.5	W	0.3
09/07/2024 22:00	SW	0.5	W	0.2
09/07/2024 22:18	SW	1.1	W	0.3
09/07/2024 22:34	N	0.0	W	0.2
09/07/2024 22:53	SW	0.5	W	0.3
09/07/2024 23:15	SW	1.6	W	0.1

4.2 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 4.**

Table 4 Operator-Attended Noise Survey Results - Location N1

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
09/07/2024	14:43 (Day)	72	66	53	40	55	WD: N WS: 0.2m/s Rain: Nil	Traffic 36-64 Birds 40-55 Aircraft 38-72 Local industrial noise 37-55 Dogs barking 40-51 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
09/07/2024	20:42 (Evening)	64	50	47	45	49	WD: W WS: 0.1m/s Rain: Nil	Frogs 43-49 Traffic 44-48 Dogs barking 46-51 Operator 64 Aircraft 45-53 PGH operation 30-34 (audible on lulls)
PGH Site $L_{A10(15min)}$ Contribution								<35
09/07/2024	22:53 (Night)	56	52	49	47	50	WD: W WS: 0.3m/s Rain: Nil	Frogs 44-48 Traffic 45-56 Dogs barking 47-54 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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 N3

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N3 for the NMA are presented in **Table 5**.

Table 5 Operator-Attended Noise Survey Results - Location N3

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
09/07/2024	15:04 (Day)	97	82	71	49	75	WD: N WS: 0.2m/s Rain: Nil	Traffic 42-97 Birds 44-50 Frogs 44-48 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
09/07/2024	20:18 (Evening)	81	76	63	53	64	WD: W WS: 0.3m/s Rain: Nil	Traffic 53-81 Frogs 51-58 Dogs barking 53-55 Aircraft 52-56 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
09/07/2024	22:34 (Night)	86	75	63	52	58	WD: W WS: 0.2m/s Rain: Nil	Traffic 52-86 Frogs 50-55 Aircraft 53-57 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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 N14

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N14 for the NMA are presented in **Table 6**.

Table 6 Operator-Attended Noise Survey Results - Location N14

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
09/07/2024	15:22 (Day)	89	82	69	45	72	WD: N WS: 0.4m/s Rain: Nil	Traffic 41-89 Birds 43-67 Aircraft 46-58 PGH reverse alarms <35 (3 minutes)
PGH Site $L_{A10(15min)}$ Contribution								<35
09/07/2024	20:00 (Evening)	87	76	64	44	62	WD: W WS: 0.2m/s Rain: Nil	Frogs 40-46 Traffic 43-87 Aircraft 42-51 Dogs barking PGH alarms <35 (20 seconds) PGH hum <35 (audible on lulls)
PGH Site $L_{A10(15min)}$ Contribution								<35
09/07/2024	22:18 (Night)	87	75	62	47	60	WD: W WS: 0.3m/s Rain: Nil	Frogs 43-48 Traffic 43-87 Aircraft 44-52 PGH hum 33-35 (audible on lulls) Reverse Alarms <35 (audible for 30s, barley audible)
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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 N20

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N20 for the NMA are presented in **Table 7**.

Table 7 Operator-Attended Noise Survey Results - Location N20

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
09/07/2024	15:45 (Day)	91	82	69	42	72	WD: N WS: 0.3m/s Rain: Nil	Birds 37-53 Traffic 37-91 Frogs 35-46 Aircraft 41-54 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
09/07/2024	19:42 (Evening)	86	78	65	52	65	WD: W WS: 0.4m/s Rain: Nil	Frogs 45-61 Traffic 46-86 Wildlife 55-57 Dogs barking <50 Aircraft 46-50 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
09/07/2024	22:00 (Night)	82	73	60	50	60	WD: W WS: 0.2m/s Rain: Nil	Frogs 45-55 Traffic 46-82 Aircraft 48-60 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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.

4.6 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 8.**

Table 8 Operator-Attended Noise Survey Results - Location N35

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
09/07/2024	14:22 (Day)	61	53	42	34	45	WD: N WS: 0.2m/s Rain: Nil	Aircraft 34-61 Birds 32-56 Traffic 30-59 Local residential noise 35-56 PGH mobile plant <32 (2 minutes)
PGH Site $L_{A10(15min)}$ Contribution								<35
09/07/2024	20:06 (Evening)	60	54	50	48	52	WD: W WS: 0.3m/s Rain: Nil	Frogs 45-49 Traffic 46-60 Dog bark 47-50 Aircraft 47-54 Livestock 55 PGH hum <35 (audible on lull)
PGH Site $L_{A10(15min)}$ Contribution								<35
09/07/2024	23:15 (Night)	55	53	50	48	52	WD: W WS: 0.1m/s Rain: Nil	Frogs 46-50 Traffic 47-55 Dogs barking 45-52 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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.

5 Discussion

5.1 Assessment Results - Location N1

Monitoring on Tuesday 9 July 2024 identified that PGH activities were inaudible and audible when ambient levels were low during the evening measurement period at location N1. The site contributions were estimated to be below the relevant noise limits for each assessed period. Extraneous sources such as frogs, traffic, birds, aircraft, local industrial noise, dogs barking and operator noise were audible during the measurement period.

5.2 Assessment Results - Location N3

Monitoring on Tuesday 9 July 2024 identified that PGH activities were inaudible during all measurement periods at location N3. The site contributions were estimated to be below the relevant noise limits for each assessed period. Extraneous sources such as traffic, birds, dogs barking, aircraft and frogs were audible during the measurement period.

5.3 Assessment Results - Location N14

Monitoring on Tuesday 9 July 2024 identified that PGH activities were barely perceptible and only audible when ambient levels were low during the day, evening and night measurement period at location N14. The site contributions were estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as frogs, traffic, dogs barking, birds and aircraft were audible during the measurement period.

5.4 Assessment Results - Location N20

Monitoring on Tuesday 9 July 2024 identified that PGH activities were inaudible during the measurement periods at location N20. The estimated site contributions estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as birds, traffic, frogs, dogs barking, aircraft, and wildlife were audible during the measurement period.

5.5 Assessment Results - Location N35

Monitoring on Tuesday 9 July 2024 identified that PGH activities were audible during the day and evening measurement periods and inaudible during the night period at location N35. The site contributions were estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as aircraft, birds, traffic, local residential noise, frogs, livestock and dogs barking noise were audible during the measurement period.

6 Conclusion

Muller Acoustic Consulting Pty Ltd (MAC) has completed a Noise Monitoring Assessment (NMA) commissioned by PGH Bricks & Pavers Pty Ltd (PGH) for the PGH Bringelly Brickworks (the site) at 60 Greendale Road, Bringelly, NSW. The assessment was completed to assess the site's compliance with the relevant noise criteria during the quarter period ending August 2024.

Attended noise monitoring was undertaken on Tuesday 9 July 2024 at five representative receiver locations. The assessment has identified that noise emissions generated by Bringelly Brickworks were measured to be below the relevant noise criteria throughout the survey period, satisfying the relevant consent conditions.

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Appendix A – Glossary of Terms

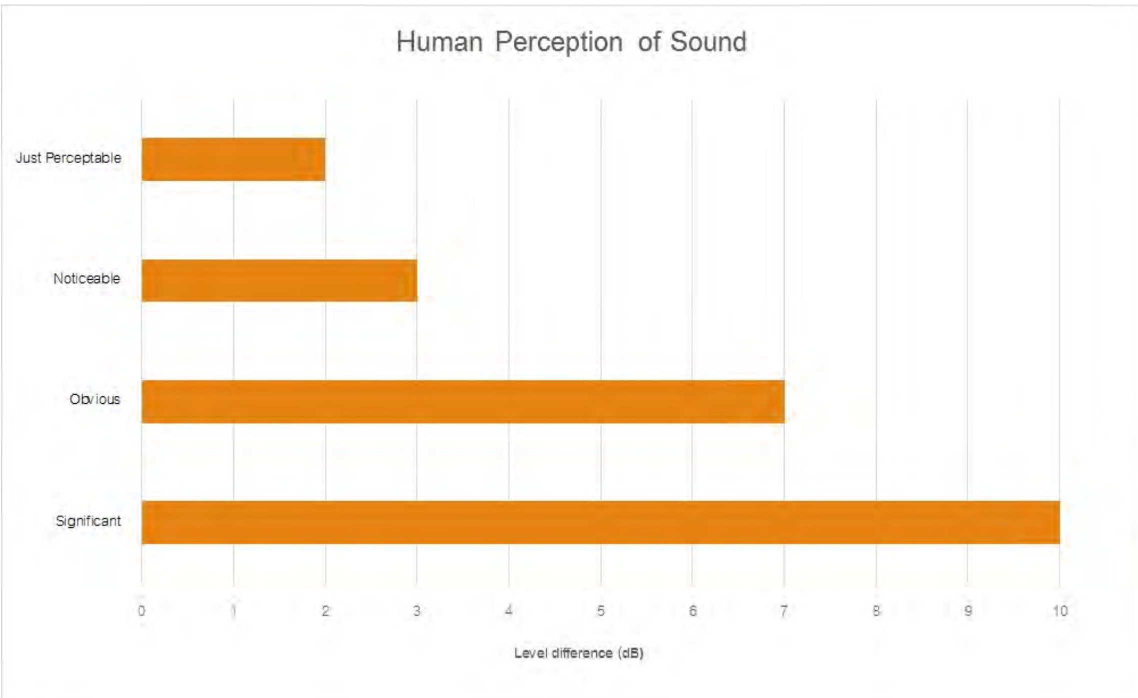
A number of technical terms have been used in this report and are explained in **Table A1**.

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.
LAmax	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.log10 (W/Wo). 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	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 *Threatened Species Conservation Act 1995*
EIS	Environmental Impact Statement titled *Bringelly Brickworks and Quarry Expansion* (2 volumes), dated September 2013, as modified by the Response to Submissions titled, *Bringelly Brickworks and Quarry Expansion, Response to Submissions* dated February 2014 and the letter entitled *Bringelly Brickworks – Biodiversity Offsets*, dated 2 June 2014
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
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	*State Environmental Planning Policy (Sydney Regional Growth Centres) 2006*
Ha	Hectare
Incident	A set of circumstances that: • 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	*National Parks and Wildlife Act 1974*
OEH	NSW Office of Environment and Heritage
POEO Act	*Protection of the Environment Operations Act 1997*
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

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

Table 1: Operating Hours

Activity	*Operating Hours*
• 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

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	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

3. 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:
   (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.

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:
   (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:
        - o the effectiveness of the air quality management system; and
        - o 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;

- o the effectiveness of the water management system; and
  - o 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:
  - o groundwater inflows to the quarry pit; and
  - o 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)	• Safe, stable and non-polluting • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native species and habitat

Surface infrastructure	• To be decommissioned and removed (unless the Secretary agrees otherwise)
Final void	• Minimise the size, depth and slope of the batters of the final void • Minimise the drainage catchment of the final void
Quarry pit floor	• Landscaped and revegetated using native flora species, above the anticipated final void water level
Community	• 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:
    (a) be prepared in consultation with DRE and Camden Council;
    (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;
    (c) provide details of the conceptual final landform and associated final land uses for the site;
    (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;
    (e) inform the Rehabilitation Management Plan (prepared in accordance with condition 26 of this consent); and
    (f) 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:
    (a) be prepared in consultation with OEH, DRE, DPI Water 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) 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);
    (d) 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;
    (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggers for any necessary remedial action;
    (f) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and
    (g) 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.

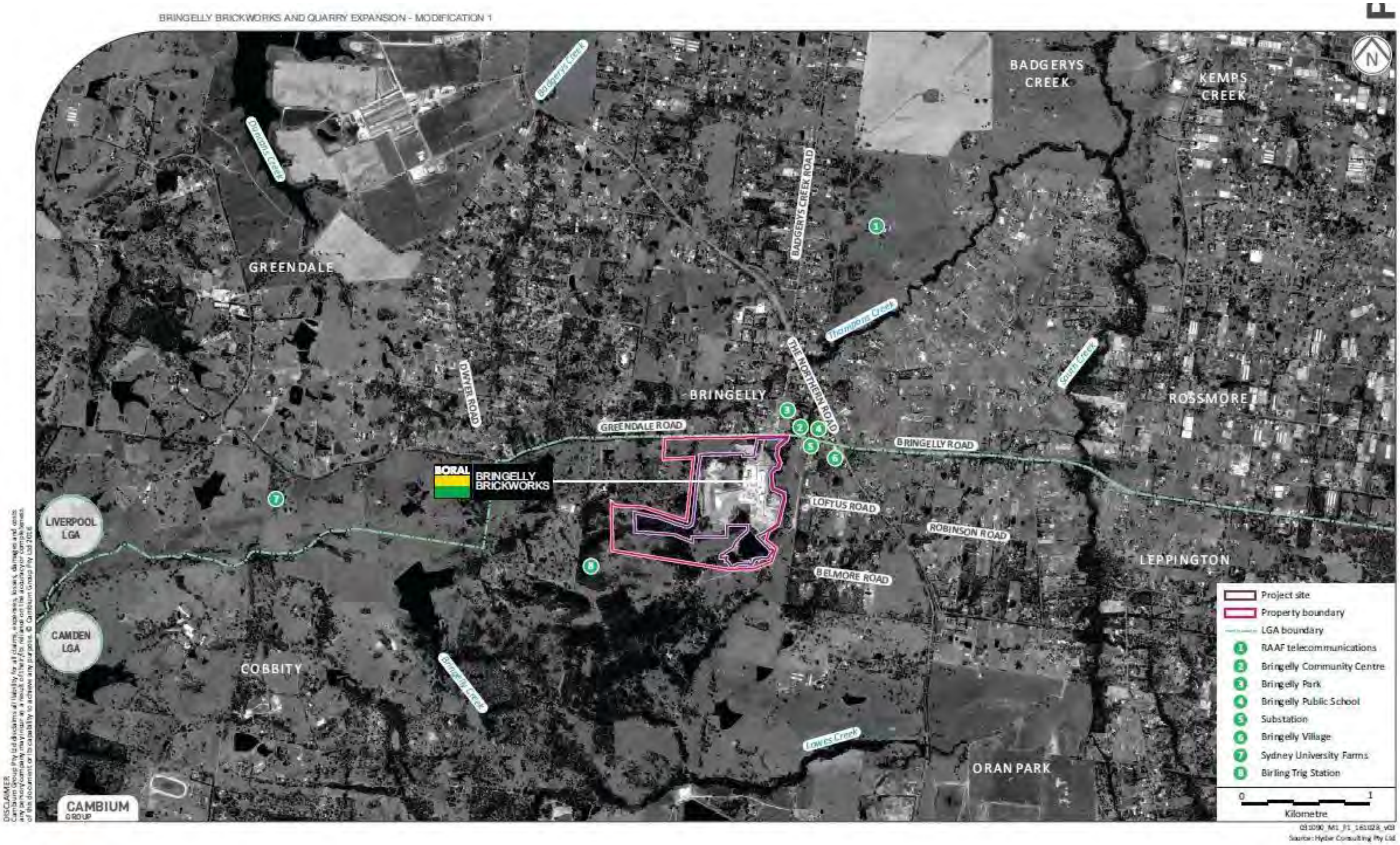
ACCESS TO INFORMATION

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

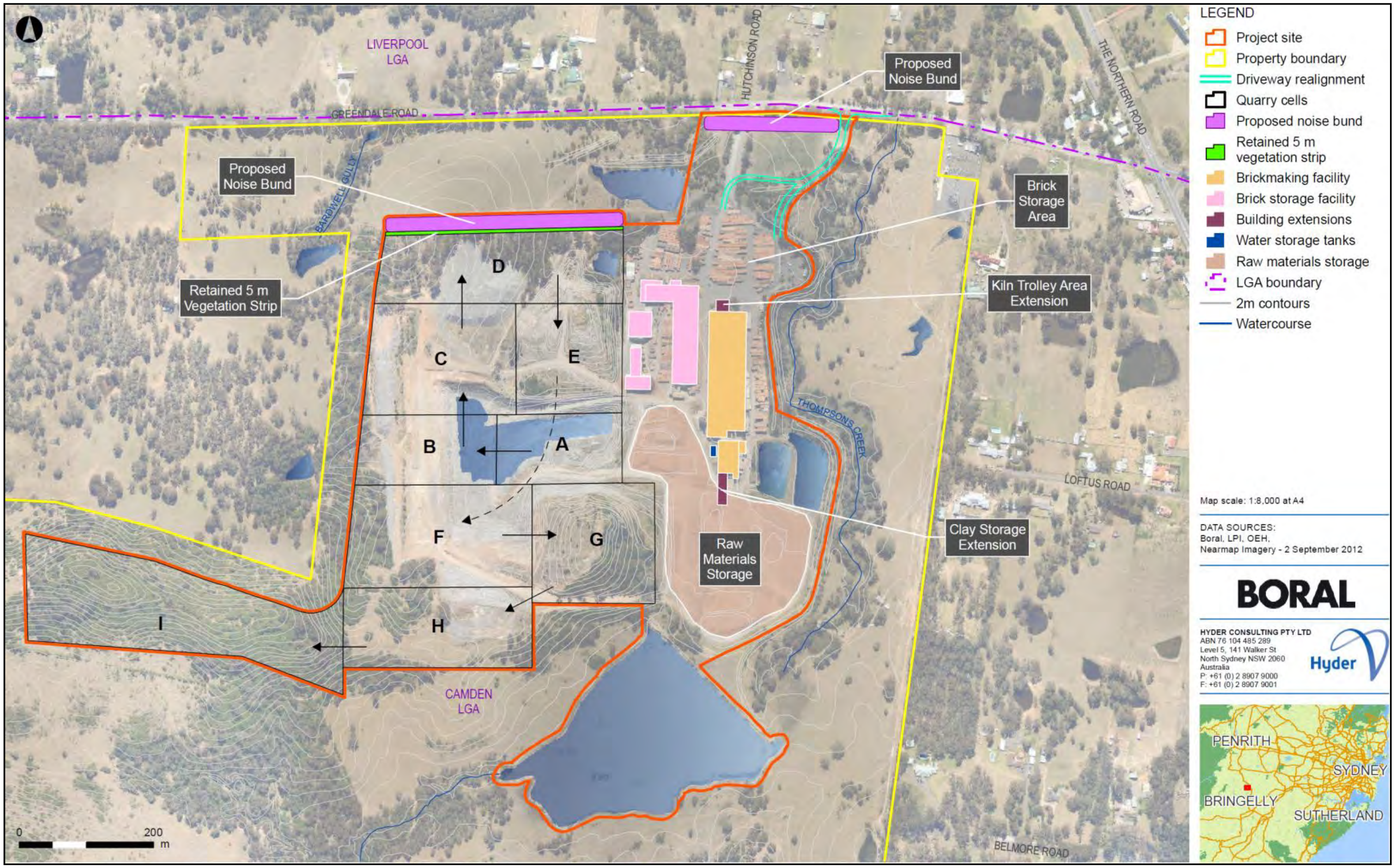
(b) keep this information up-to-date,

to the satisfaction of the Secretary.

APPENDIX 1
DEVELOPMENT AREA



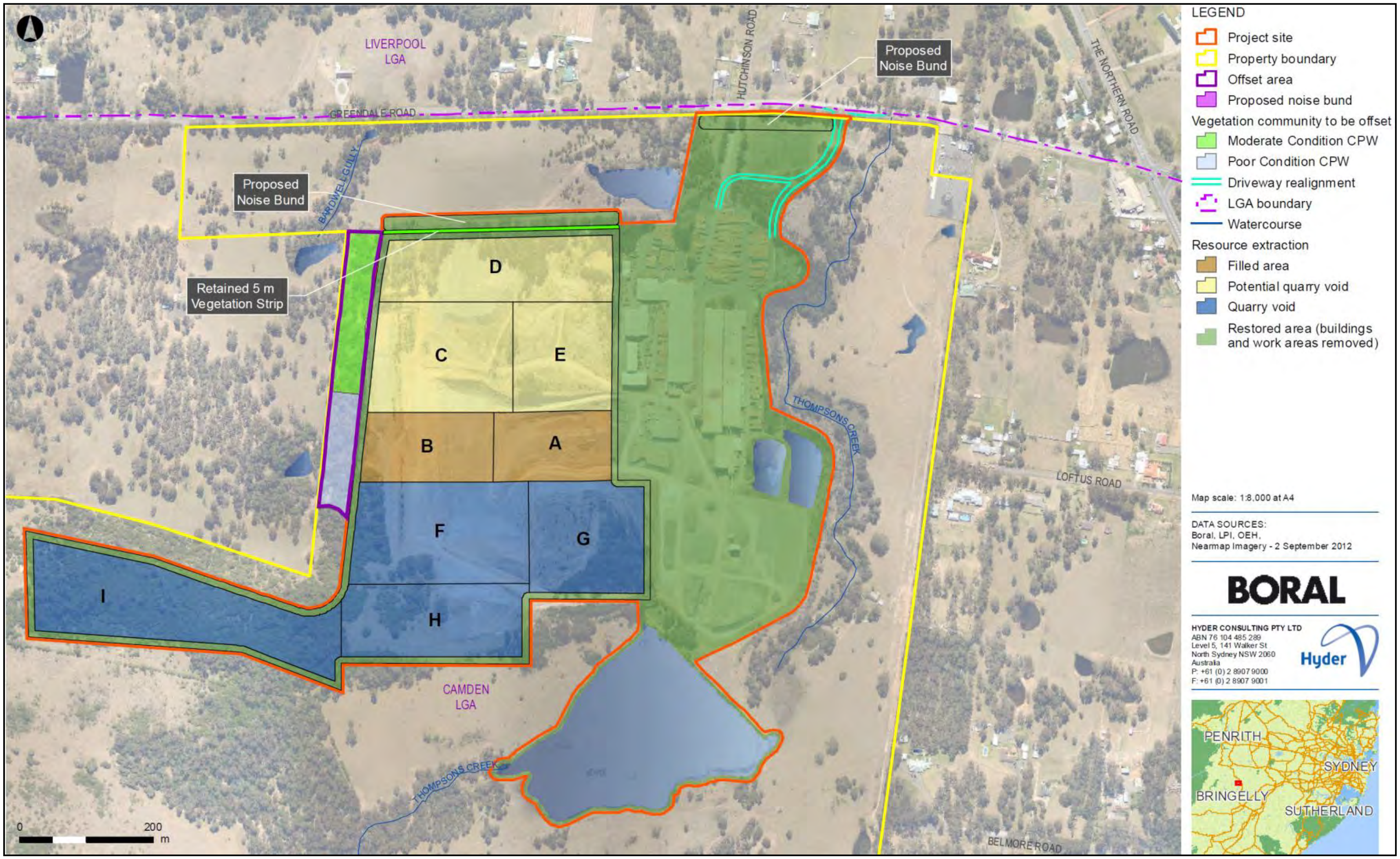
APPENDIX 2
DEVELOPMENT LAYOUT



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 ºC and 3ºC/100 m and wind speeds greater than 2 m/s at 10 m above ground level; or
   (c) temperature inversion conditions greater than 3ºC/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 date, 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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MAC
Muller Acoustic Consulting

Noise Monitoring Assessment

PGH Bringelly Brickworks
Bringelly, NSW
Quarter Ending November 2024

Muller Acoustic Consulting

Prepared for: PGH Bricks & Pavers Pty Ltd
November 2024
MAC190946-02RP16

Document Information

Noise Monitoring Assessment

PGH Bringelly Brickworks

Bringelly, NSW

Quarter Ending November 2024

Prepared for: PGH Bricks & Pavers Pty Ltd

60 Greendale Road

Bringelly NSW 2256

Prepared by: Muller Acoustic Consulting Pty Ltd

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Document ID	Date	Prepared By	Signed	Reviewed By	Signed
MAC190946-02RP16	7 November 2024	Nicholas Shipman	N. Shipman	Oliver Muller	

Field officer: Daniel Brown

DISCLAIMER

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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 60 Greendale Road, Bringelly, NSW.

This assessment has been undertaken for the quarterly period ending November 2024, and forms part of the annual noise monitoring program to address conditions outlined in the Development Consent and Environmental Protection Licence (EPL).

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;
- NSW Environment Protection Authority (EPA's), Approved Methods for the measurement and analysis of environmental noise in NSW, 2022;
- Environment Protection Licence EPL #1808 (EPL);
- Bringelly Brickworks Noise Management Plan (NMP Reference: BRK-BRI-NMP Version 4, dated 12 December 2019), 2019;
- Bringelly Brickworks Development Consent, 2015 (SSD_5684); and
- Standards Australia 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**.

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2 Noise Criteria

Section L4 of the projects EPL (EPL #1808) outlines the applicable operational noise criteria for all privately owned receivers surrounding the project. The criteria outlined in the EPL is reproduced below in **Table 1** along with relevant noise conditions:

L4.1 Noise from the mobile plant must not exceed an L_{A10} (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 L_{A10} (15 minute) noise emission criterion of 35dB(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 meters 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.

Table 1 EPL Noise Criteria[1]

Receiver	Activity	All Operating Periods dB LA10(15min)
All receiver locations	Mobile Plant	35
	Total Noise from Premises	

Note 1: Noise criteria adopted from the EPL (EPL #1808).

The Bringelly Brickworks NMP outlines the applicable noise criteria for representative residential receivers surrounding the site and are presented in **Table 2**. 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 2 Development Consent Noise Criteria[1]

Activity	Receiver	Day/Evening/Shoulder[2,3] dB LAeq(15min)	Night[2] dB LAeq(15min)	Night[2] dB LA1(max)[3]
Brickmaking and Quarrying	R1, R2	47	N/A	
	R3, R4, R14	46		
	R15, R17	45		
	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, see **Appendix B**) 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 (Reference: Muller Acoustic Consulting Pty Ltd, MAC190946LR1, 27 September 2019).

FIGURE 1

SITE LAYOUT

MAC190946-02

PGH Bringelly Brickworks

KEY

Monitoring Locations

Receivers

0 100 200 300 400 m

N

MAC Muller Acoustic Consulting

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3 Methodology

3.1 Locality

PGH Bringelly Brickworks is located at 60 Greendale Road, Bringelly, NSW. Receivers in the locality surrounding the site are primarily rural/residential and for consistency the naming conventions for each receiver have been retained from historic noise assessments. The monitoring locations with respect to PGH are presented in the locality plan shown in **Figure 1**.

3.2 Assessment Methodology

The attended noise measurements were conducted in general accordance with the procedures described in Standards Australia AS 1055:2018, "Acoustics - Description and Measurement of Environmental Noise" and as per Approved Methods for the measurement and analysis of environmental noise in NSW (EPA, 2022). Measurements were conducted using a Svantek Type 1, 971 noise analyser. All acoustic instrumentation used carries appropriate and current NATA (or manufacturer) calibration certificates with records of all calibrations maintained by MAC as per Approved Methods for the measurement and analysis of environmental noise in NSW (EPA, 2022) and complies with AS/NZS 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 ±0.5dBA.

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 30 October 2024 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 Meteorological Conditions

Weather data for the noise assessment period was sourced from Badgerys Creek AWS Site 67108 as well as operator measured conditions at each EPL nominated receiver location. The data was used to determine prevailing meteorological conditions at the time of the attended measurements. Meteorological data is presented in **Table 3** and are generally below levels where noise limits are applicable. Furthermore, wind speed at the microphone height satisfies requirements of Fact Sheet A of the NPI.

Table 3 Prevailing Meteorological Conditions

Date & Time	Badgerys Creek AWS Site 67108 (10m AGL)		Operator Measured Weather Monitoring Location (1.8m AGL)	
	Wind Direction	Wind (m/s)	Wind Direction	Wind (m/s)
09/07/2024 13:29	NE	3.0	NE	0.8
09/07/2024 13:51	NE	1.6	NE	1.5
09/07/2024 14:11	NNE	1.1	NE	0.8
09/07/2024 14:30	NE	2.4	NE	0.3
09/07/2024 14:50	NE	1.9	NE	0.4
09/07/2024 19:48	SE	1.6	SE	0.3
09/07/2024 20:10	SE	1.6	SE	0.2
09/07/2024 20:29	SE	1.6	SE	0.2
09/07/2024 20:47	SE	1.1	SE	0.4
09/07/2024 21:06	SE	1.6	SE	0.4
09/07/2024 22:00	SE	1.6	SE	0.3
09/07/2024 22:18	SE	1.6	SE	0.3
09/07/2024 22:35	SE	1.1	SE	0.2
09/07/2024 22:56	SE	1.1	SE	0.2
09/07/2024 23:20	SE	1.6	SE	0.2

4.2 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 4.**

Table 4 Operator-Attended Noise Survey Results - Location N1

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
30/10/2024	13:51 (Day)	75	60	53	49	54	WD: NE WS: 1.5m/s Rain: Nil	Traffic 45-53 Birds 45-75 Aircraft 49-61 Insects 47-50 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
30/10/2024	20:10 (Evening)	54	50	48	46	49	WD: SE WS: 0.2m/s Rain: Nil	Insects 45-49 Traffic 46-52 Dogs barking 49-51 Birds 47-54 Local residential <45 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
30/10/2024	22:56 (Night)	62	51	45	42	47	WD: SE WS: 0.2m/s Rain: Nil	Insects 41-51 Traffic 42-62 Dogs barking 43-47 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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 N3

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N3 for the NMA are presented in **Table 5**.

Table 5 Operator-Attended Noise Survey Results - Location N3

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
30/10/2024	14:11 (Day)	71	67	59	55	61	WD: NE WS: 0.8m/s Rain: Nil	Traffic 52-71 Birds 53-71 Insects 48-53 Aircraft 54-60 Local residential <40 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
30/10/2024	20:29 (Evening)	67	64	53	45	56	WD: SE WS: 0.2m/s Rain: Nil	Traffic 44-67 Insects 42-47 Dogs barking 43-47 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
30/10/2024	22:35 (Night)	69	63	51	43	52	WD: SE WS: 0.2m/s Rain: Nil	Traffic 44-69 Insects 42-46 Dogs barking 44-48 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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 N14

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N14 for the NMA are presented in **Table 6**.

Table 6 Operator-Attended Noise Survey Results - Location N14

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
30/10/2024	14:30 (Day)	90	82	70	53	72	WD: NE WS: 0.4m/s Rain: Nil	Traffic 54-90 Birds 50-62 Aircraft 53-59 Insects 40-47 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
30/10/2024	20:47 (Evening)	84	76	63	44	63	WD: SE WS: 0.4m/s Rain: Nil	Insects 40-47 Traffic 43-84 Dogs barking <40 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
30/10/2024	22:18 (Night)	89	76	63	43	60	WD: SE WS: 0.3m/s Rain: Nil	Insects 40-45 Traffic 42-89 Dogs barking 44-47 Birds 45-58 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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 N20

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N20 for the NMA are presented in **Table 7**.

Table 7 Operator-Attended Noise Survey Results - Location N20

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
30/10/2024	14:50 (Day)	87	80	69	56	70	WD: NE WS: 0.4m/s Rain: Nil	Birds 55-71 Traffic 56-87 Insects 53-58 Aircraft 56-66 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
30/10/2024	21:06 (Evening)	83	75	61	41	59	WD: SE WS: 0.4m/s Rain: Nil	Insects/ frogs 40-45 Traffic 41-83 Livestock 40-43 Dogs barking 40-44 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
30/10/2024	22:00 (Night)	95	78	68	42	63	WD: SE WS: 0.3m/s Rain: Nil	Insects/ frogs 41-44 Traffic 42-95 Aircraft 42-48 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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.

4.6 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 8**.

Table 8 Operator-Attended Noise Survey Results - Location N35

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
30/10/2024	13:29 (Day)	72	72	65	55	70	WD: NE WS: 0.8m/s Rain: Nil	Aircraft 58-72 Birds 56-70 Traffic 50-55 Insects 53-69 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
30/10/2024	19:48 (Evening)	65	65	59	51	63	WD: SE WS: 0.3m/s Rain: Nil	Insects 49-64 Traffic 50-53 Birds 49-65 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
30/10/2024	23:20 (Night)	55	54	52	50	53	WD: SE WS: 0.2m/s Rain: Nil	Insects/frogs 48-52 Traffic 50-55 Dogs barking 50-54 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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.

5 Discussion

5.1 Assessment Results - Location N1

Monitoring on Wednesday 30 October 2024 identified that PGH activities were inaudible and inaudible during all measurement periods at location N1. The site contributions were estimated to be below the relevant noise limits for each assessed period. Extraneous sources such as insects, traffic, birds, aircraft, local residential noise, dogs barking and operator noise were audible during the measurement period.

5.2 Assessment Results - Location N3

Monitoring on Wednesday 30 October 2024 identified that PGH activities were inaudible during all measurement periods at location N3. The site contributions were estimated to be below the relevant noise limits for each assessed period. Extraneous sources such as traffic, birds, local residential noise, dogs barking, aircraft and insects were audible during the measurement period.

5.3 Assessment Results - Location N14

Monitoring on Wednesday 30 October 2024 identified that PGH activities inaudible during all measurement periods at location N14. The site contributions were estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as insects, traffic, dogs barking, birds and aircraft were audible during the measurement period.

5.4 Assessment Results - Location N20

Monitoring on Wednesday 30 October 2024 identified that PGH activities were inaudible during the measurement periods at location N20. The estimated site contributions estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as birds, traffic, insects, frogs, dogs barking, aircraft, and livestock were audible during the measurement period.

5.5 Assessment Results - Location N35

Monitoring on Wednesday 30 October 2024 identified that PGH activities were inaudible during all measurement periods at location N35. The site contributions were estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as aircraft, birds, traffic, frogs, insects and dogs barking noise were audible during the measurement period.

6 Conclusion

Muller Acoustic Consulting Pty Ltd (MAC) has completed a Noise Monitoring Assessment (NMA) commissioned by PGH Bricks & Pavers Pty Ltd (PGH) for the PGH Bringelly Brickworks (the site) at 60 Greendale Road, Bringelly, NSW. The assessment was completed to assess the site's compliance with the relevant noise criteria during the quarter period ending November 2024.

Attended noise monitoring was undertaken on Wednesday 30 October 2024 at five representative receiver locations. The assessment has identified that noise emissions generated by Bringelly Brickworks were measured to be below the relevant noise criteria throughout the survey period, satisfying the relevant consent conditions.

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Appendix A – Glossary of Terms

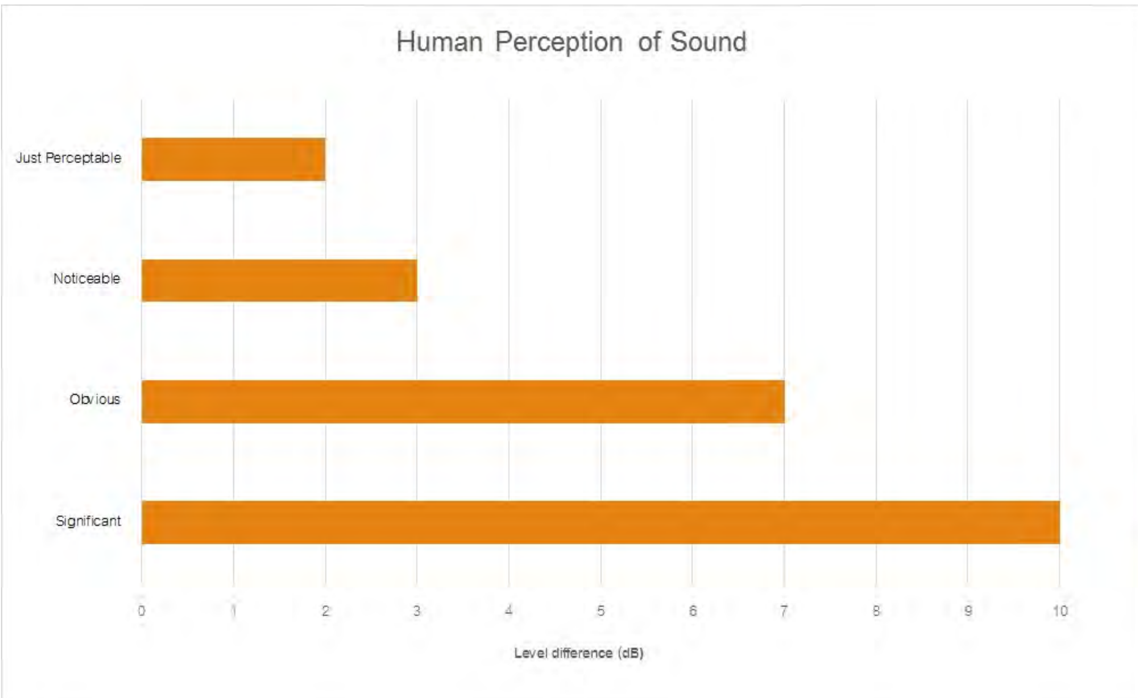
A number of technical terms have been used in this report and are explained in **Table A1**.

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.
LAmax	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.log10 (W/Wo). 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	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 *Threatened Species Conservation Act 1995*
EIS	Environmental Impact Statement titled *Bringelly Brickworks and Quarry Expansion* (2 volumes), dated September 2013, as modified by the Response to Submissions titled, *Bringelly Brickworks and Quarry Expansion, Response to Submissions* dated February 2014 and the letter entitled *Bringelly Brickworks – Biodiversity Offsets*, dated 2 June 2014
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
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	*State Environmental Planning Policy (Sydney Regional Growth Centres) 2006*
Ha	Hectare
Incident	A set of circumstances that: • 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	*National Parks and Wildlife Act 1974*
OEH	NSW Office of Environment and Heritage
POEO Act	*Protection of the Environment Operations Act 1997*
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

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

Table 1: Operating Hours

Activity	Operating Hours
• 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

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	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

3. 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:
   (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.

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:
   (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:
         o the effectiveness of the air quality management system; and
         o 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;

- o the effectiveness of the water management system; and
  - o 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:
  - o groundwater inflows to the quarry pit; and
  - o 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)	• Safe, stable and non-polluting • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native species and habitat

Surface infrastructure	• To be decommissioned and removed (unless the Secretary agrees otherwise)
Final void	• Minimise the size, depth and slope of the batters of the final void • Minimise the drainage catchment of the final void
Quarry pit floor	• Landscaped and revegetated using native flora species, above the anticipated final void water level
Community	• 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:
    (a) be prepared in consultation with DRE and Camden Council;
    (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;
    (c) provide details of the conceptual final landform and associated final land uses for the site;
    (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;
    (e) inform the Rehabilitation Management Plan (prepared in accordance with condition 26 of this consent); and
    (f) 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:
    (a) be prepared in consultation with OEH, DRE, DPI Water 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) 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);
    (d) 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;

    (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggers for any necessary remedial action;
    (f) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and
    (g) 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.

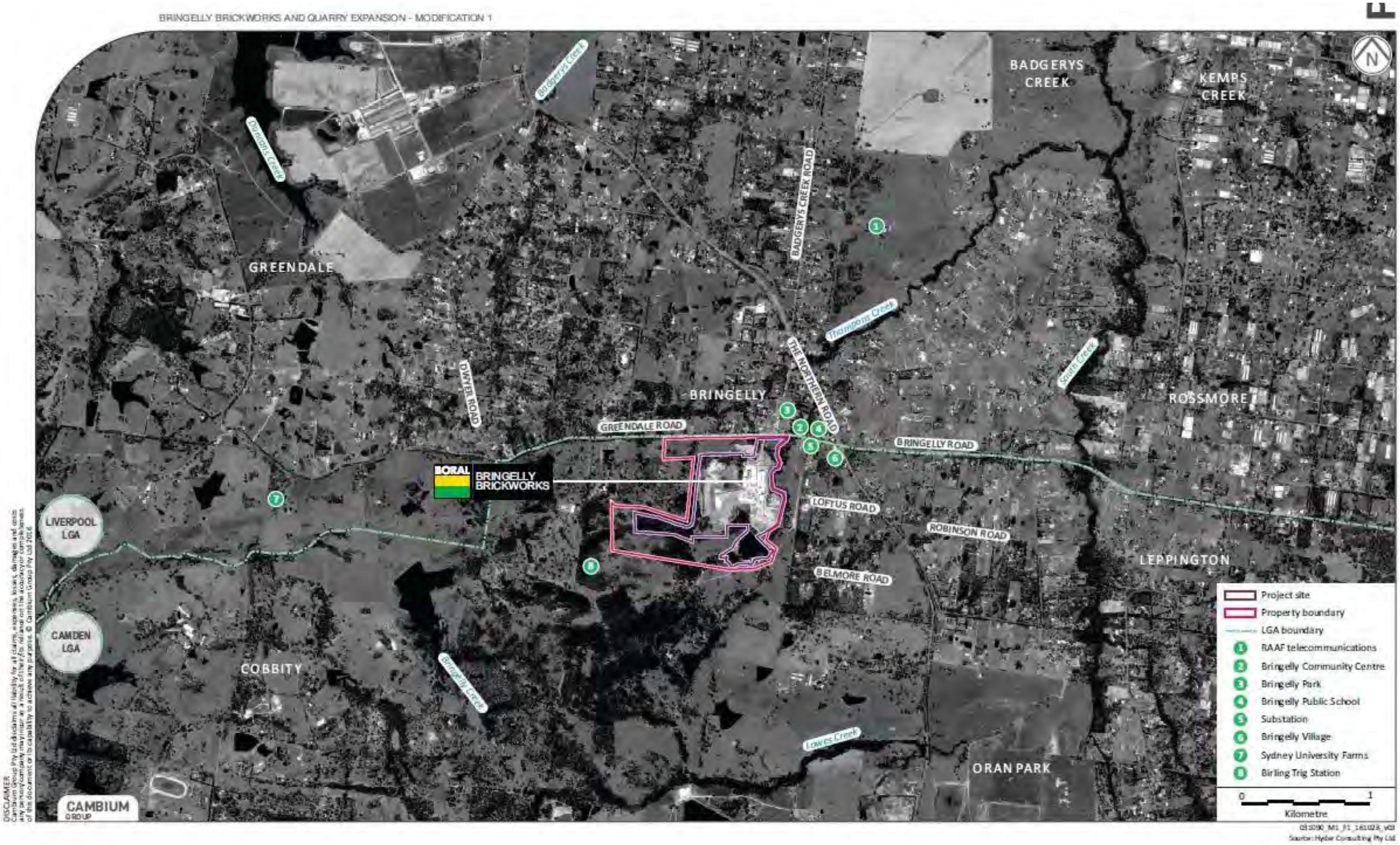
ACCESS TO INFORMATION

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

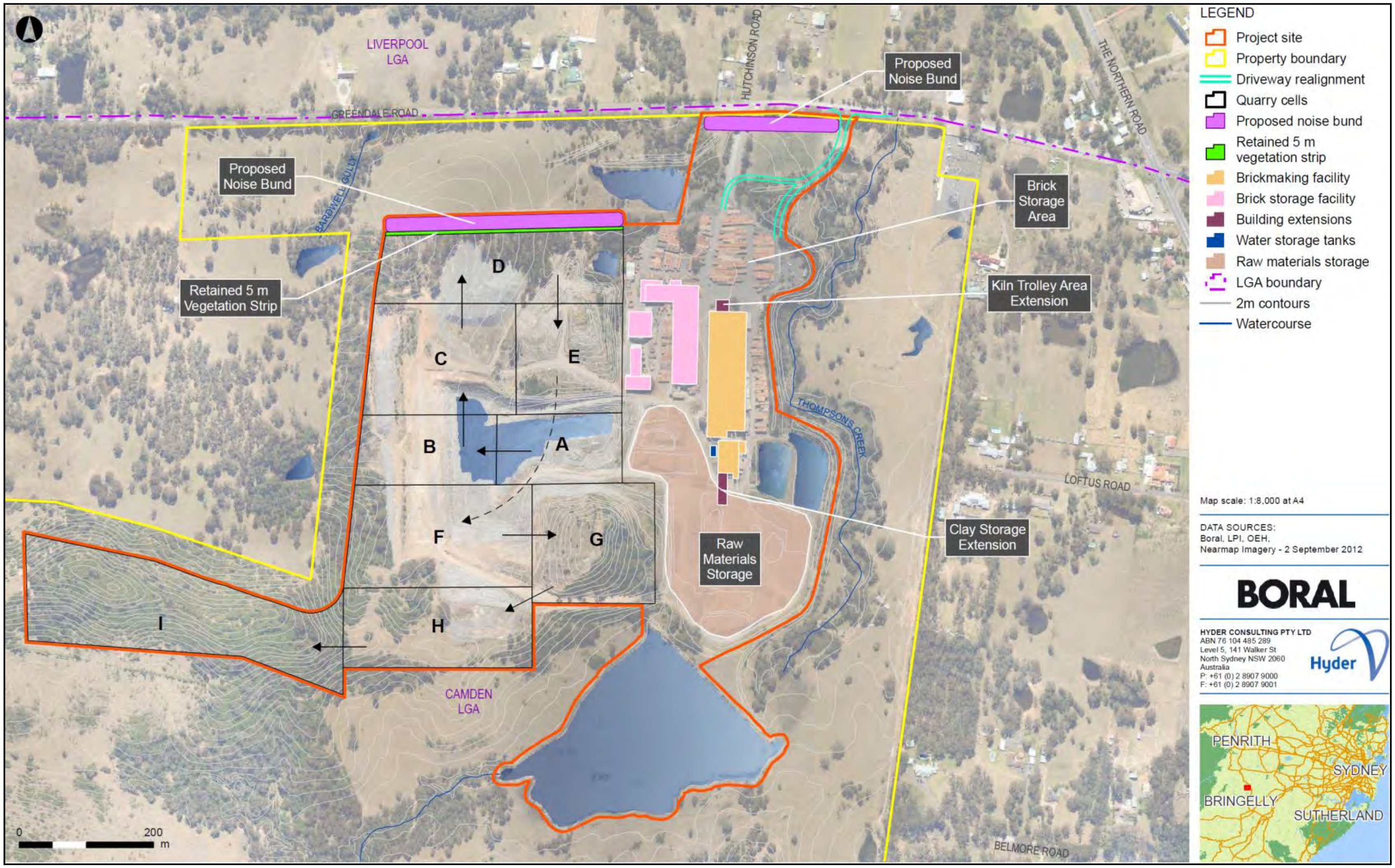
(b) keep this information up-to-date,

to the satisfaction of the Secretary.

APPENDIX 1
DEVELOPMENT AREA



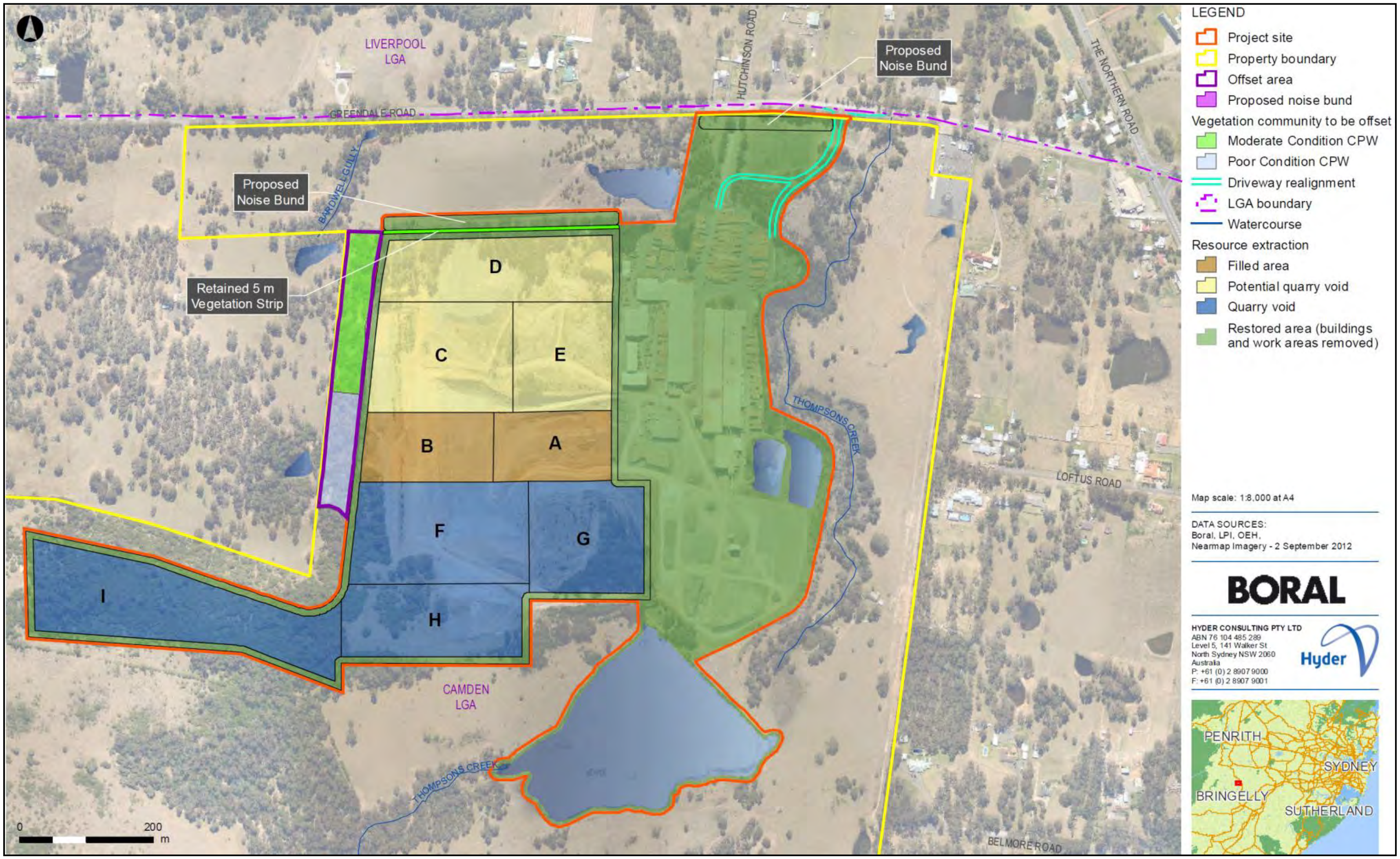
APPENDIX 2
DEVELOPMENT LAYOUT



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 ºC and 3ºC/100 m and wind speeds greater than 2 m/s at 10 m above ground level; or
   (c) temperature inversion conditions greater than 3ºC/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 date, 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.

Noise Monitoring Assessment

PGH Bringelly Brickworks
Bringelly, NSW
Quarter Ending February 2025

Prepared for: PGH Bricks & Pavers Pty Ltd
February 2025
MAC190946-02RP17

Muller Acoustic Consulting

Document Information

Noise Monitoring Assessment

PGH Bringelly Brickworks

Bringelly, NSW

Quarter Ending February 2025

Prepared for: PGH Bricks & Pavers Pty Ltd

60 Greendale Road

Bringelly NSW 2256

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Field officer: Daniel Brown

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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 60 Greendale Road, Bringelly, NSW.

This assessment has been undertaken for the quarterly period ending February 2025, and forms part of the annual noise monitoring program to address conditions outlined in the Development Consent and Environmental Protection Licence (EPL).

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;
- NSW Environment Protection Authority (EPA's), Approved Methods for the measurement and analysis of environmental noise in NSW, 2022;
- Environment Protection Licence EPL #1808 (EPL);
- Bringelly Brickworks Noise Management Plan (NMP Reference: BRK-BRI-NMP Version 4, dated 12 December 2019), 2019;
- Bringelly Brickworks Development Consent, 2015 (SSD_5684); and
- Standards Australia 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**.

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2 Noise Criteria

Section L4 of the projects EPL (EPL #1808) outlines the applicable operational noise criteria for all privately owned receivers surrounding the project. The criteria outlined in the EPL is reproduced below in **Table 1** along with relevant noise conditions:

L4.1 Noise from the mobile plant must not exceed an $LA_{10\ (15\ minute)}$ 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 $LA_{10\ (15\ minute)}$ noise emission criterion of 35dB(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 meters 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.

Table 1 EPL Noise Criteria[1]

Receiver	Activity	All Operating Periods dB $LA_{10(15min)}$
All receiver locations	Mobile Plant	35
	Total Noise from Premises	

Note 1: Noise criteria adopted from the EPL (EPL #1808).

The Bringelly Brickworks NMP outlines the applicable noise criteria for representative residential receivers surrounding the site and are presented in **Table 2**. 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 2 Development Consent Noise Criteria[1]

Activity	Receiver	Day/Evening/Shoulder[2,3] dB $LAeq_{(15min)}$	Night[2] dB $LAeq_{(15min)}$	Night[2] dB $LA_{1(max)}$[3]
Brickmaking and Quarrying	R1, R2	47	N/A	
	R3, R4, R14	46		
	R15, R17	45		
	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, see **Appendix B**) 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 (Reference: Muller Acoustic Consulting Pty Ltd, MAC190946LR1, 27 September 2019).

FIGURE 1

SITE LAYOUT

MAC190946-02

PGH Bringelly Brickworks

KEY

Monitoring Locations

Receivers

0 100 200 300 400 m

N

MAC
Muller Acoustic Consulting

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3 Methodology

3.1 Locality

PGH Bringelly Brickworks is located at 60 Greendale Road, Bringelly, NSW. Receivers in the locality surrounding the site are primarily rural/residential and for consistency the naming conventions for each receiver have been retained from historic noise assessments. The monitoring locations with respect to PGH are presented in the locality plan shown in **Figure 1**.

3.2 Assessment Methodology

The attended noise measurements were conducted in general accordance with the procedures described in Standards Australia AS 1055:2018, "Acoustics - Description and Measurement of Environmental Noise" and as per Approved Methods for the measurement and analysis of environmental noise in NSW (EPA, 2022). Measurements were conducted using a Svantek Type 1, 971 noise analyser. All acoustic instrumentation used carries appropriate and current NATA (or manufacturer) calibration certificates with records of all calibrations maintained by MAC as per Approved Methods for the measurement and analysis of environmental noise in NSW (EPA, 2022) and complies with AS/NZS 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 ±0.5dBA.

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 Thursday 6 February 2025 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 Meteorological Conditions

Weather data for the noise assessment period was sourced from Badgerys Creek AWS Site 67108 as well as operator measured conditions at each EPL nominated receiver location. The data was used to determine prevailing meteorological conditions at the time of the attended measurements. Meteorological data is presented in **Table 3** and are generally below levels where noise limits are applicable. Furthermore, wind speed at the microphone height satisfies requirements of Fact Sheet A of the NPI.

Table 3 Prevailing Meteorological Conditions

Date & Time	Badgerys Creek AWS Site 67108 (10m AGL)		Operator Measured Weather Monitoring Location (1.8m AGL)	
	Wind Direction	Wind (m/s)	Wind Direction	Wind (m/s)
06/02/2025 14:10	E	4.6	E	2.0
06/02/2025 14:32	E	5.4	E	2.5
06/02/2025 14:51	E	6.5	E	2.0
06/02/2025 15:09	ENE	5.4	E	1.5
06/02/2025 15:29	E	5.1	E	2.0
06/02/2025 20:19	E	3.0	SE	0.1
06/02/2025 20:39	E	1.9	SE	0.1
06/02/2025 20:59	E	1.9	SE	0.1
06/02/2025 21:17	ENE	1.9	SE	0.1
06/02/2025 21:39	ENE	1.6	SE	0.1
06/02/2025 22:01	ENE	1.1	SE	0.1
06/02/2025 22:18	ENE	1.1	SE	0.1
06/02/2025 22:36	N	0.0	SE	0.1
06/02/2025 22:55	ENE	1.1	SE	0.1
06/02/2025 23:17	ENE	0.5	SE	0.1

4.2 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 4.**

Table 4 Operator-Attended Noise Survey Results - Location N1

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		LA$_{max}$	LA$_{1}$	LA$_{eq}$	LA$_{90}$	LA$_{10}$		
06/02/2025	14:32 (Day)	67	62	50	43	53	WD: E WS: 2.0m/s Rain: Nil	Traffic 40-67 Birds 41-63 Wind in vegetation 44-51 Aircraft 42-54 PGH site inaudible
PGH Site LA10(15min) Contribution								<35
06/02/2025	20:39 (Evening)	61	53	50	44	52	WD: SE WS: 0.1m/s Rain: Nil	Aircraft 44-49 Local residential noise <40 Birds 45-61 Insects 42-53 Traffic 44-54 Dogs barking 46-51 PGH site inaudible
PGH Site LA10(15min) Contribution								<35
06/02/2025	22:55 (Night)	62	51	44	41	45	WD: SE WS: 0.1m/s Rain: Nil	Traffic 39-62 Insects 39-43 Dogs barking 43-46 PGH site inaudible
PGH Site LA$_{10(15min)}$ Contribution								<35
PGH Site LA$_{1(max)}$ Contribution								<35

Note 1: 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 N3

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N3 for the NMA are presented in **Table 5**.

Table 5 Operator-Attended Noise Survey Results - Location N3

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
06/02/2025	14:51 (Day)	73	68	57	48	60	WD: E WS: 2.0m/s Rain: Nil	Insects 45-53 Aircraft 48-64 Traffic 45-73 Birds 49-58 Wind in vegetation 45-50 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
06/02/2025	20:59 (Evening)	75	66	55	43	57	WD: SE WS: 0.1m/s Rain: Nil	Insects 41-43 Traffic 43-75 Recreational noise 40-59 Birds 43-47 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
06/02/2025	22:36 (Night)	68	64	51	39	51	WD: SE WS: 0.1m/s Rain: Nil	Traffic 38-68 Insects 36-41 Aircraft 40-55 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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 N14

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N14 for the NMA are presented in **Table 6.**

Table 6 Operator-Attended Noise Survey Results - Location N14

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		LAmax	LA1	LAeq	LA90	LA10		
06/02/2025	15:09 (Day)	83	77	65	49	69	WD: E WS: 1.5m/s Rain: Nil	Traffic 47-83 Insects 46-52 Aircraft 45-61 Wind in vegetation 47-50 PGH reverse alarm <35 (5 seconds)
PGH Site LA10(15min) Contribution								<35
06/02/2025	21:17 (Evening)	80	NA	61	52	NA	WD: SE WS: 0.1m/s Rain: Nil	Insects 49-58 Local residential noise <45 Traffic 50-80 Aircraft 51-56 Dogs barking <50 PGH site inaudible
PGH Site LA10(15min) Contribution								<35
06/02/2025	22:18 (Night)	85	75	61	44	59	WD: SE WS: 0.1m/s Rain: Nil	Insects 41-45 Traffic 43-85 Dogs barking <40 PGH site inaudible
PGH Site LA10(15min) Contribution								<35
PGH Site LA1(max) Contribution								<35

Note 1: 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 period.

4.5 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 7**.

Table 7 Operator-Attended Noise Survey Results - Location N20

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
06/02/2025	15:29 (Day)	89	80	68	45	70	WD: E WS: 2.0m/s Rain: Nil	Birds 46-60 Wind in vegetation 43-51 Traffic 45-89 Insects <43 Aircraft 45-54 Other industry 41-45 PGH site inaudible
PGH Site LA10(15min) Contribution								<35
06/02/2025	21:39 (Evening)	61	53	50	44	52	WD: SE WS: 0.1m/s Rain: Nil	Insects 39-42 Traffic 42-61 Birds 40-53 Aircraft 40-44 PGH site inaudible
PGH Site LA10(15min) Contribution								<35
06/02/2025	22:01 (Night)	83	76	62	38	58	WD: SE WS: 0.1m/s Rain: Nil	Traffic 36-83 Insects 37-41 Aircraft 40-44 Dogs barking 38-46 Birds 41-50 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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.

4.6 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 8**.

Table 8 Operator-Attended Noise Survey Results - Location N35

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		LAmax	LA1	LAeq	LA90	LA10		
06/02/2025	14:10 (Day)	62	54	45	41	48	WD: E WS: 2.0m/s Rain: Nil	Insects <35 Birds 38-55 Traffic 37-50 Aircraft 40-62 Wind in vegetation 43-45 PGH site inaudible
PGH Site LA10(15min) Contribution								<35
06/02/2025	20:19 (Evening)	67	61	47	37	45	WD: SE WS: 0.1m/s Rain: Nil	Insects 34-47 Traffic 35-54 Aircraft 40-56 Dogs barking 43-55 Birds 44-67 PGH site inaudible
PGH Site LA10(15min) Contribution								<35
06/02/2025	23:17 (Night)	51	45	40	37	43	WD: SE WS: 0.1m/s Rain: Nil	Insects 35-43 Traffic 37-51 Dogs barking 39-44 PGH site inaudible
PGH Site LA10(15min) Contribution								<35
PGH Site LA1(max) Contribution								<35

Note 1: 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.

5 Discussion

5.1 Assessment Results - Location N1

Monitoring on Thursday 6 February 2025 identified that PGH activities were inaudible during all measurement periods at location N1. The site contributions were estimated to be below the relevant noise limits for each assessed period. Extraneous sources such as traffic, birds, wind in vegetation, aircraft, local residential noise, insects and dogs barking were audible during the measurement period.

5.2 Assessment Results - Location N3

Monitoring on Thursday 6 February 2025 identified that PGH activities were inaudible during all measurement periods at location N3. The site contributions were estimated to be below the relevant noise limits for each assessed period. Extraneous sources such as insects, aircraft, traffic, birds, wind in vegetation and recreational noise were audible during the measurement period.

5.3 Assessment Results - Location N14

Monitoring on Thursday 6 February 2025 identified that PGH activities were audible on one occasion during the measurement period at location N14. The site contributions were estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as traffic, insects, aircraft, wind in vegetation, local residential noise and dogs barking were audible during the measurement period.

5.4 Assessment Results - Location N20

Monitoring on Thursday 6 February 2025 identified that PGH activities were inaudible during the measurement periods at location N20. The estimated site contributions estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as birds, wind in vegetation, traffic, insects, aircraft, other industrial noise and dogs barking were audible during the measurement period.

5.5 Assessment Results - Location N35

Monitoring on Thursday 6 February 2025 identified that PGH activities were inaudible during all measurement periods at location N35. The site contributions were estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as insects, birds, traffic, aircraft, wind in vegetation and dogs barking were audible during the measurement period.

6 Conclusion

Muller Acoustic Consulting Pty Ltd (MAC) has completed a Noise Monitoring Assessment (NMA) commissioned by PGH Bricks & Pavers Pty Ltd (PGH) for the PGH Bringelly Brickworks (the site) at 60 Greendale Road, Bringelly, NSW. The assessment was completed to assess the site's compliance with the relevant noise criteria during the quarter period ending February 2025.

Attended noise monitoring was undertaken on Thursday 6 February 2025 at five representative receiver locations. The assessment has identified that noise emissions generated by Bringelly Brickworks were measured to be 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**.

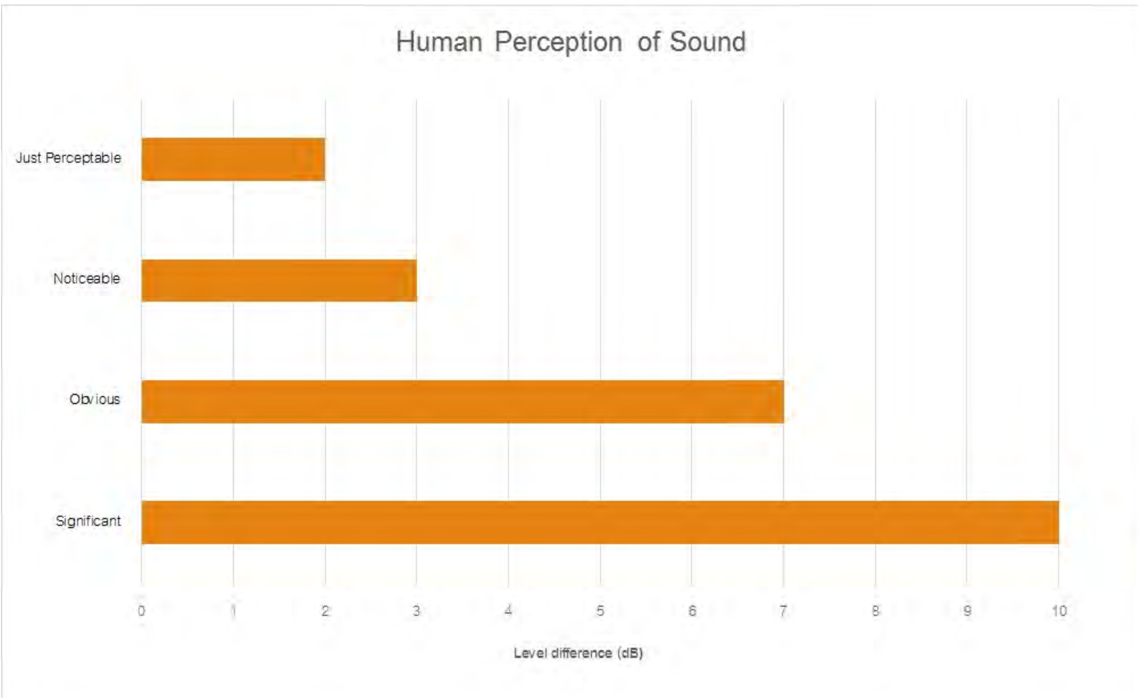
Table A1 Glossary of Acoustical Terms	
Term	Description
1/3 Octave	Single octave bands divided into three parts
Octave	A division of the frequency range into bands, the upper frequency limit of each band being twice the lower frequency limit.
ABL	Assessment Background Level (ABL) is defined in the NPI 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.
LAmax	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.log10 (W/Wo). 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	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 *Threatened Species Conservation Act 1995*
EIS	Environmental Impact Statement titled *Bringelly Brickworks and Quarry Expansion* (2 volumes), dated September 2013, as modified by the Response to Submissions titled, *Bringelly Brickworks and Quarry Expansion, Response to Submissions* dated February 2014 and the letter entitled *Bringelly Brickworks – Biodiversity Offsets*, dated 2 June 2014
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
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	*State Environmental Planning Policy (Sydney Regional Growth Centres) 2006*
Ha	Hectare
Incident	A set of circumstances that: • 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	*National Parks and Wildlife Act 1974*
OEH	NSW Office of Environment and Heritage
POEO Act	*Protection of the Environment Operations Act 1997*
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

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

Table 1: Operating Hours

Activity	***Operating Hours***
• 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

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	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

3. 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 $\mu g/m^3$
Particulate matter < 10 µm (PM_{10})	Annual	[a] 30 $\mu g/m^3$

Table 4: Short-Term Criteria for Particulate Matter

Pollutant	Averaging period	[d] Criterion
Particulate matter < 10 µm (PM_{10})	24 hour	[a] 50 µg/m³

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/m²/month	[a] 4 g/m²/month

Table 6: Long and Short-Term Stack Emissions

Pollutant	Averaging period	[d] Criterion
Sulphur Dioxide	10-minute	712 µg/m³
	1-Hour	570 µg/m³
	24-Hour	228 µg/m³
	Annual	60 µg/m³
Nitrogen Dioxide	1-Hour	246 µg/m³
	Annual	62 µg/m³
Hydrogen Chloride	1 hour	0.14 mg/m³

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:
   (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.

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:
   (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:
         - o the effectiveness of the air quality management system; and
         - o 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;

- o the effectiveness of the water management system; and
  - o 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:
  - o groundwater inflows to the quarry pit; and
  - o 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)	• Safe, stable and non-polluting • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native species and habitat

Surface infrastructure	• To be decommissioned and removed (unless the Secretary agrees otherwise)
Final void	• Minimise the size, depth and slope of the batters of the final void • Minimise the drainage catchment of the final void
Quarry pit floor	• Landscaped and revegetated using native flora species, above the anticipated final void water level
Community	• 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:
    (a) be prepared in consultation with DRE and Camden Council;
    (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;
    (c) provide details of the conceptual final landform and associated final land uses for the site;
    (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;
    (e) inform the Rehabilitation Management Plan (prepared in accordance with condition 26 of this consent); and
    (f) 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:
    (a) be prepared in consultation with OEH, DRE, DPI Water 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) 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);
    (d) 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;
    (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggers for any necessary remedial action;
    (f) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and
    (g) 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.

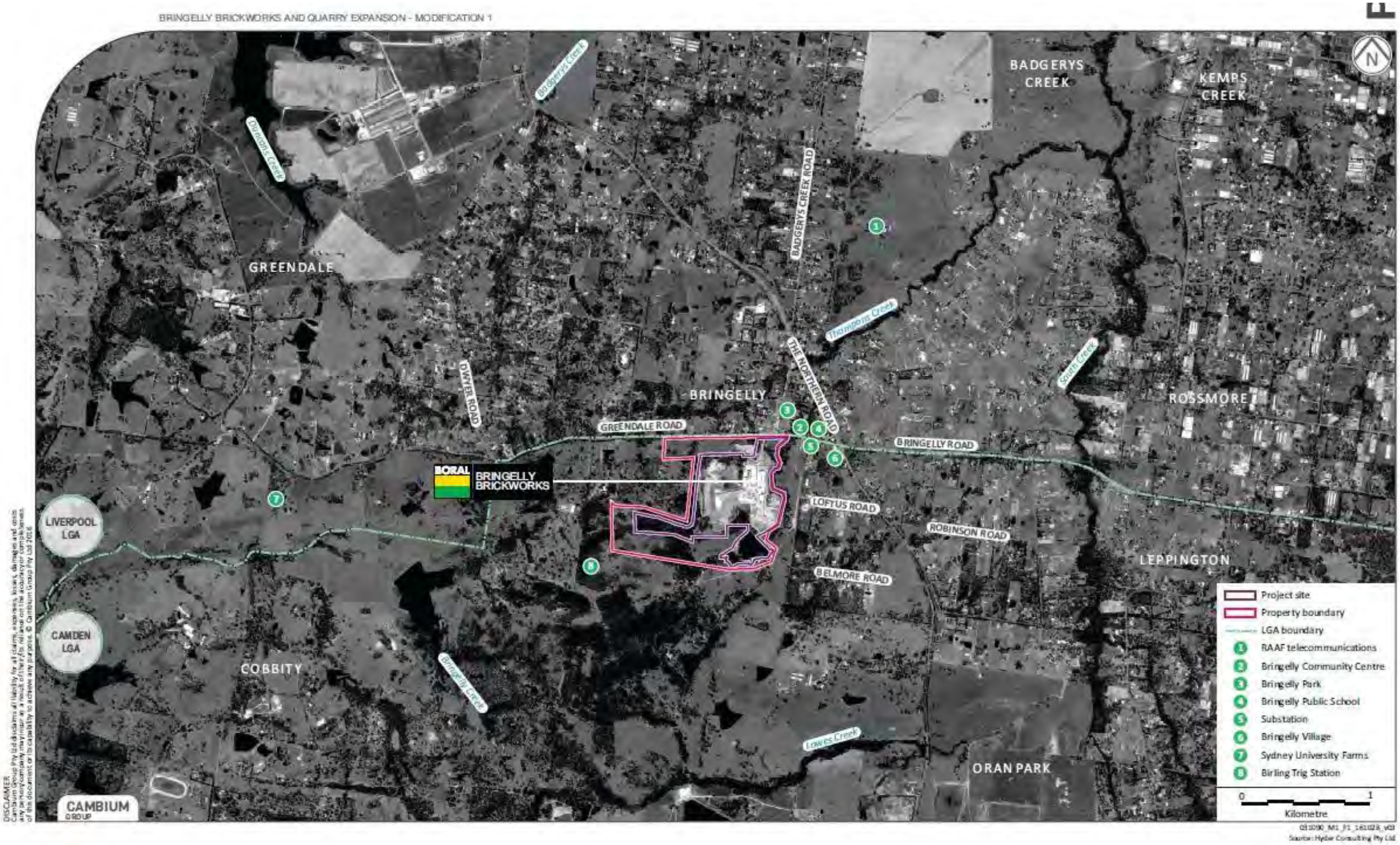
ACCESS TO INFORMATION

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

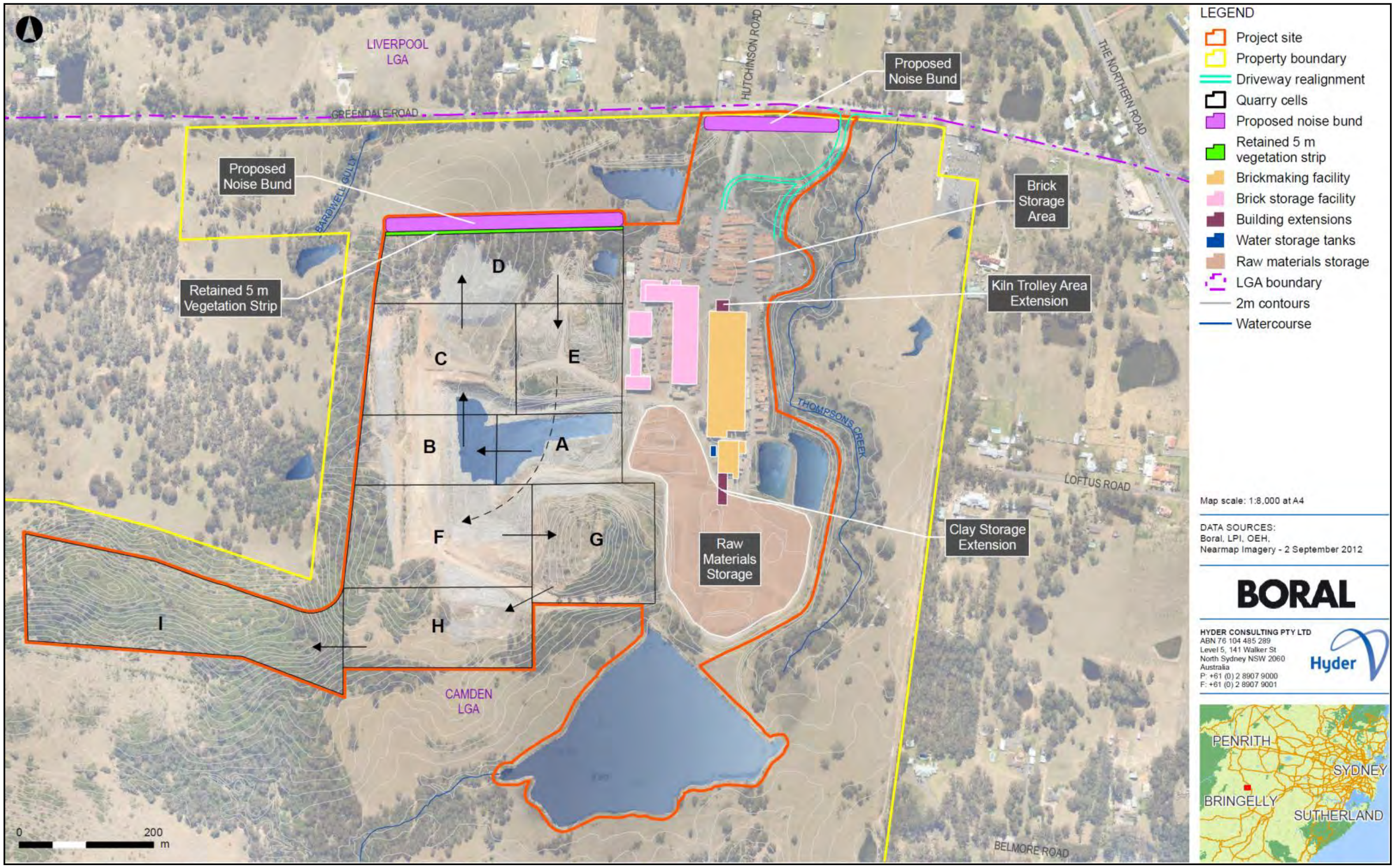
(b) keep this information up-to-date,

to the satisfaction of the Secretary.

APPENDIX 1
DEVELOPMENT AREA



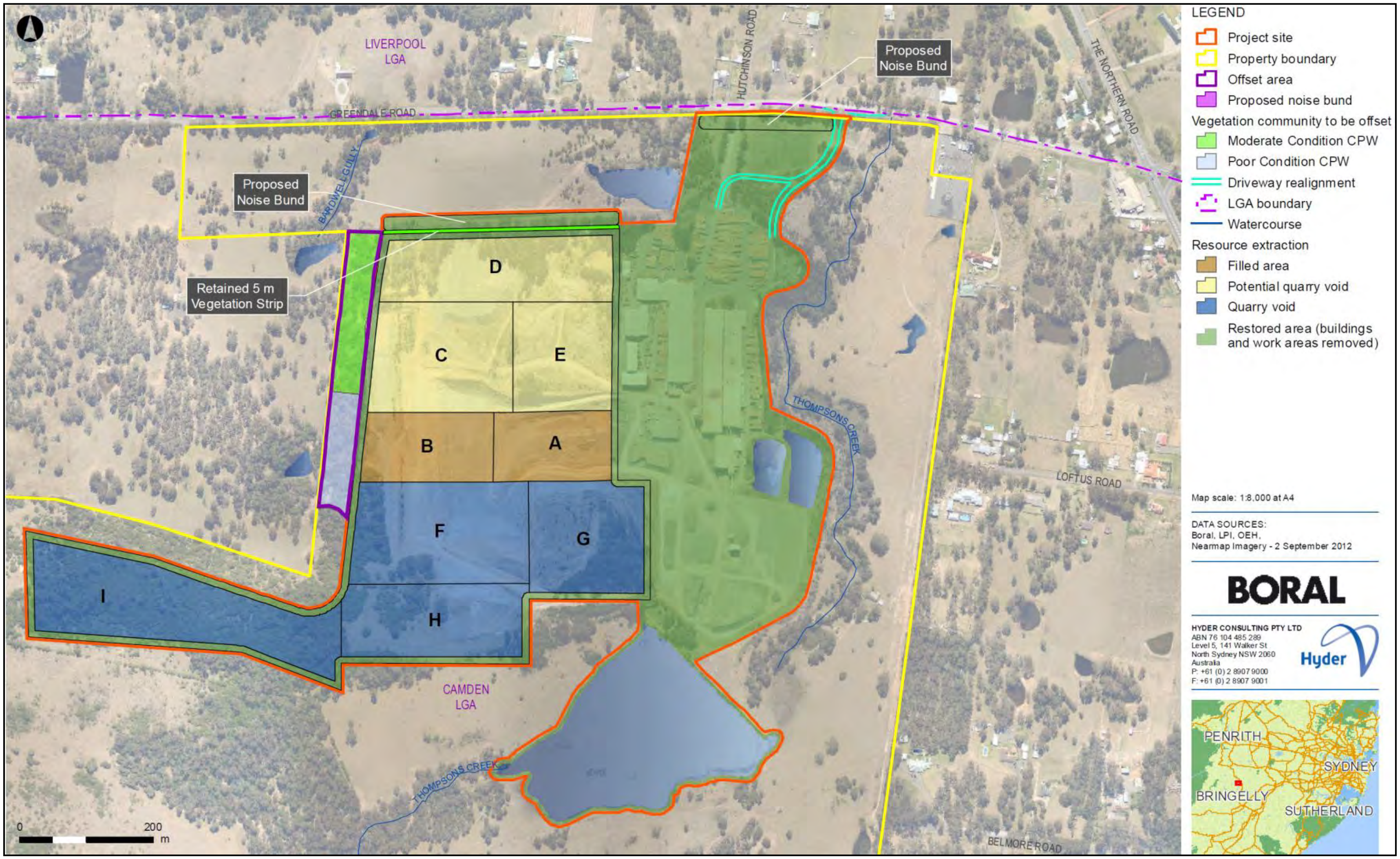
APPENDIX 2
DEVELOPMENT LAYOUT



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 ºC and 3ºC/100 m and wind speeds greater than 2 m/s at 10 m above ground level; or
   (c) temperature inversion conditions greater than 3ºC/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 date, 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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MAC
Muller Acoustic Consulting

Noise Monitoring Assessment

PGH Bringelly Brickworks
Bringelly, NSW
Quarter Ending May 2025

Prepared for: PGH Bricks & Pavers Pty Ltd
May 2025
MAC190946-02RP18

Document Information

Noise Monitoring Assessment

PGH Bringelly Brickworks

Bringelly, NSW

Quarter Ending May 2025

Prepared for: PGH Bricks & Pavers Pty Ltd

60 Greendale Road

Bringelly NSW 2256

Prepared by: Muller Acoustic Consulting Pty Ltd

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Document ID	Date	Prepared By	Signed	Reviewed By	Signed
MAC190946-02RP18	23 May 2025	Daniel Brown		Oliver Muller	

Field officer: Daniel Brown

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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 60 Greendale Road, Bringelly, NSW.

This assessment has been undertaken for the quarterly period ending May 2025, and forms part of the annual noise monitoring program to address conditions outlined in the Development Consent and Environmental Protection Licence (EPL).

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;
- NSW Environment Protection Authority (EPA's), Approved Methods for the measurement and analysis of environmental noise in NSW, 2022;
- Environment Protection Licence EPL #1808 (EPL);
- Bringelly Brickworks Noise Management Plan (NMP Reference: BRK-BRI-NMP Version 4, dated 12 December 2019), 2019;
- Bringelly Brickworks Development Consent, 2015 (SSD_5684); and
- Standards Australia 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**.

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2 Noise Criteria

Section L4 of the projects EPL (EPL #1808) outlines the applicable operational noise criteria for all privately owned receivers surrounding the project. The criteria outlined in the EPL is reproduced below in **Table 1** along with relevant noise conditions:

> *L4.1 Noise from the mobile plant must not exceed an $L_{A10\ (15\ minute)}$ 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 $L_{A10\ (15\ minute)}$ noise emission criterion of 35dB(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 meters 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.*

Table 1 EPL Noise Criteria[1]

Receiver	Activity	All Operating Periods dB $L_{A10(15min)}$
All receiver locations	Mobile Plant	35
	Total Noise from Premises	

Note 1: Noise criteria adopted from the EPL (EPL #1808).

The Bringelly Brickworks NMP outlines the applicable noise criteria for representative residential receivers surrounding the site and are presented in **Table 2**. 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 2 Development Consent Noise Criteria[1]

Activity	Receiver	Day/Evening/Shoulder[2,3]	Night[2]	
		dB $L_{Aeq(15min)}$	dB $L_{Aeq(15min)}$	dB $L_{A1(max)}$[3]
Brickmaking and Quarrying	R1, R2	47	N/A	
	R3, R4, R14	46		
	R15, R17	45		
	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, see **Appendix B**) 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 (Reference: Muller Acoustic Consulting Pty Ltd, MAC190946LR1, 27 September 2019).

FIGURE 1

SITE LAYOUT

MAC190946-02

PGH Bringelly Brickworks

KEY

Monitoring Locations

Receivers

0 100 200 300 400 m

N

MAC Muller Acoustic Consulting

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3 Methodology

3.1 Locality

PGH Bringelly Brickworks is located at 60 Greendale Road, Bringelly, NSW. Receivers in the locality surrounding the site are primarily rural/residential and for consistency the naming conventions for each receiver have been retained from historic noise assessments. The monitoring locations with respect to PGH are presented in the locality plan shown in **Figure 1**.

3.2 Assessment Methodology

The attended noise measurements were conducted in general accordance with the procedures described in Standards Australia AS 1055:2018, "Acoustics - Description and Measurement of Environmental Noise" and as per Approved Methods for the measurement and analysis of environmental noise in NSW (EPA, 2022). Measurements were conducted using a Svantek Type 1, 971 noise analyser. All acoustic instrumentation used carries appropriate and current NATA (or manufacturer) calibration certificates with records of all calibrations maintained by MAC as per Approved Methods for the measurement and analysis of environmental noise in NSW (EPA, 2022) and complies with AS/NZS 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 ±0.5dBA.

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 14 May 2025 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 Meteorological Conditions

Weather data for the noise assessment period was sourced from Badgerys Creek AWS Site 67108 as well as operator measured conditions at each EPL nominated receiver location. The data was used to determine prevailing meteorological conditions at the time of the attended measurements. Meteorological data is presented in **Table 3** and are generally below levels where noise limits are applicable. Furthermore, wind speed at the microphone height satisfies requirements of Fact Sheet A of the NPI.

Table 3 Prevailing Meteorological Conditions

Date & Time	Badgerys Creek AWS Site 67108 (10m AGL)		Operator Measured Weather Monitoring Location (1.8m AGL)	
	Wind Direction	Wind (m/s)	Wind Direction	Wind (m/s)
14/05/2025 14:00	NNE	0.5	N	0.1
14/05/2025 14:21	ENE	0.5	N	0.1
14/05/2025 14:42	ESE	1.1	N	0.1
14/05/2025 15:01	ESE	0.5	N	0.1
14/05/2025 15:21	ESE	0.5	N	0.1
14/05/2025 20:33	W	1.6	N	0.1
14/05/2025 20:56	W	1.6	N	0.1
14/05/2025 21:13	W	1.9	N	0.1
14/05/2025 21:29	W	1.9	N	0.1
14/05/2025 21:45	W	1.1	N	0.1
14/05/2025 22:00	W	1.6	N	0.1
14/05/2025 22:18	W	1.6	N	0.1
14/05/2025 22:35	W	1.6	N	0.1
14/05/2025 22:54	W	1.6	N	0.1
14/05/2025 23:16	W	1.9	N	0.1

4.2 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 4.**

Table 4 Operator-Attended Noise Survey Results - Location N1

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
14/05/2025	14:21 (Day)	68	64	52	42	55	WD: N WS: 0.1m/s Rain: Nil	Traffic 41-44 Birds 42-67 Aircraft 42-68 Local residential noise 41-43 Dogs barking 45-55 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
14/05/2025	20:56 (Evening)	57	49	45	44	46	WD: N WS: 0.1m/s Rain: Nil	Birds 43-45 Insects 42-46 Traffic 43-57 PGH hum barely audible in lulls <35
PGH Site $L_{A10(15min)}$ Contribution								<35
14/05/2025	22:54 (Night)	70	56	47	43	47	WD: N WS: 0.1m/s Rain: Nil	Birds 44-49 Insects 42-45 Dogs barking 44-57 Aircraft 45-53 Traffic 42-70 PGH hum barely audible in lulls <35
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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 N3

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N3 for the NMA are presented in **Table 5**.

Table 5 Operator-Attended Noise Survey Results - Location N3

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
14/05/2025	14:42 (Day)	74	68	58	47	63	WD: N WS: 0.1m/s Rain: Nil	Aircraft 47-61 Traffic 45-74 Birds 46-71 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
14/05/2025	21:13 (Evening)	60	57	48	43	51	WD: N WS: 0.1m/s Rain: Nil	Insects 41-46 Traffic 42-60 Wildlife 44-56 Dogs barking 42-49 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
14/05/2025	22:35 (Night)	70	56	46	40	48	WD: N WS: 0.1m/s Rain: Nil	Traffic 40-70 Insects 39-44 Aircraft 44-52 Dogs barking 42-48 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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 N14

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N14 for the NMA are presented in **Table 6**.

Table 6 Operator-Attended Noise Survey Results - Location N14

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
14/05/2025	15:01 (Day)	86	81	68	45	61	WD: N WS: 0.1m/s Rain: Nil	Traffic 40-86 Aircraft 42-67 Birds 41-60 PGH reverse alarm <40 (10 seconds)
PGH Site LA10(15min) Contribution								<35
14/05/2025	21:29 (Evening)	86	70	59	43	55	WD: N WS: 0.1m/s Rain: Nil	Insects 41-45 Local residential 43-46 Traffic 42-86 Birds 43-48 Dogs barking 42-50 PGH hum barely audible in lulls <35
PGH Site LA10(15min) Contribution								<35
14/05/2025	22:18 (Night)	75	67	54	42	52	WD: N WS: 0.1m/s Rain: Nil	Insects 41-44 Traffic 42-75 Dogs barking 41-45 Aircraft 44-54 PGH hum barely audible in lulls <35
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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 period.

4.5 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 7**.

Table 7 Operator-Attended Noise Survey Results - Location N20

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
14/05/2025	15:21 (Day)	89	83	70	47	71	WD: N WS: 0.1m/s Rain: Nil	Birds 40-62 Traffic 43-89 Aircraft 43-58 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
14/05/2025	21:45 (Evening)	96	75	67	45	57	WD: N WS: 0.1m/s Rain: Nil	Insects 42-49 Traffic 45-96 Wildlife 43-47 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
14/05/2025	22:00 (Night)	88	78	65	46	65	WD: N WS: 0.1m/s Rain: Nil	Traffic 45-88 Insects 43-49 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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.

4.6 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 8**.

Table 8 Operator-Attended Noise Survey Results - Location N35

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
14/05/2025	14:00 (Day)	60	52	42	36	44	WD: N WS: 0.1m/s Rain: Nil	Birds 34-58 Traffic 35-60 Aircraft 36-50 PGH site inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
14/05/2025	20:33 (Evening)	51	47	43	42	45	WD: N WS: 0.1m/s Rain: Nil	Insects 40-45 Traffic 40-49 Aircraft 42-50 Dogs barking 41-51 PGH hum <35 (15 seconds)
PGH Site $L_{A10(15min)}$ Contribution								<35
14/05/2025	23:16 (Night)	51	46	43	42	45	WD: N WS: 0.1m/s Rain: Nil	Insects 39-44 Traffic 40-51 PGH reverse alarm <35 (20 seconds)
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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.

5 Discussion

5.1 Assessment Results - Location N1

Monitoring on Wednesday 14 May 2025 identified that PGH activities were inaudible during all measurement periods at location N1. The site contributions were estimated to be below the relevant noise limits for each assessed period. Extraneous sources such as traffic, birds, aircraft, local residential noise, insects and dogs barking were audible during the measurement period.

5.2 Assessment Results - Location N3

Monitoring on Wednesday 14 May 2025 identified that PGH activities were inaudible during all measurement periods at location N3. The site contributions were estimated to be below the relevant noise limits for each assessed period. Extraneous sources such as insects, aircraft, traffic, birds and wildlife were audible during the measurement period.

5.3 Assessment Results - Location N14

Monitoring on Wednesday 14 May 2025 identified that PGH activities were audible on one occasion during the measurement period at location N14. The site contributions were estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as traffic, birds, insects, aircraft, local residential noise and dogs barking were audible during the measurement period.

5.4 Assessment Results - Location N20

Monitoring on Wednesday 14 May 2025 identified that PGH activities were inaudible during the measurement periods at location N20. The estimated site contributions estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as birds, traffic, insects, aircraft and wildlife were audible during the measurement period.

5.5 Assessment Results - Location N35

Monitoring on Wednesday 14 May 2025 identified that PGH activities were inaudible during all measurement periods at location N35. The site contributions were estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as insects, birds, traffic, aircraft and dogs barking were audible during the measurement period.

6 Conclusion

Muller Acoustic Consulting Pty Ltd (MAC) has completed a Noise Monitoring Assessment (NMA) commissioned by PGH Bricks & Pavers Pty Ltd (PGH) for the PGH Bringelly Brickworks (the site) at 60 Greendale Road, Bringelly, NSW. The assessment was completed to assess the site's compliance with the relevant noise criteria during the quarter period ending May 2025.

Attended noise monitoring was undertaken on Wednesday 14 May 2025, at five representative receiver locations. The assessment has identified that noise emissions generated by Bringelly Brickworks were measured to be 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

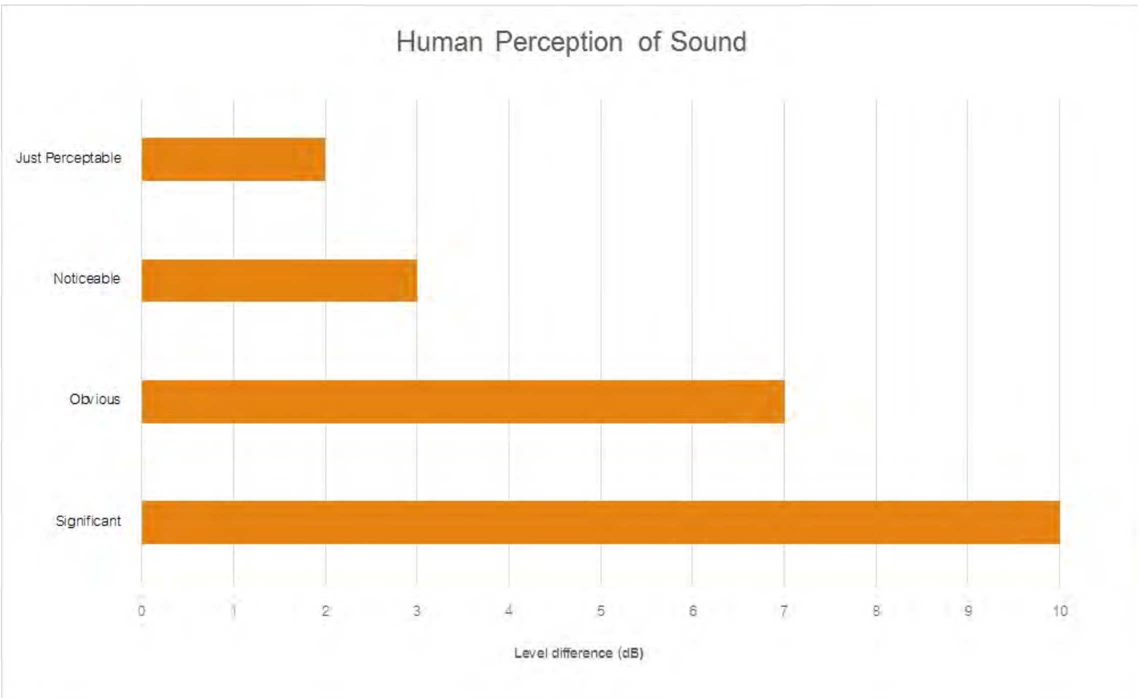
Term	Description
1/3 Octave	Single octave bands divided into three parts
Octave	A division of the frequency range into bands, the upper frequency limit of each band being twice the lower frequency limit.
ABL	Assessment Background Level (ABL) is defined in the NPI as a single figure background level for 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.
LAmax	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.log10 (W/Wo). 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	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 *Threatened Species Conservation Act 1995*
EIS	Environmental Impact Statement titled *Bringelly Brickworks and Quarry Expansion* (2 volumes), dated September 2013, as modified by the Response to Submissions titled, *Bringelly Brickworks and Quarry Expansion, Response to Submissions* dated February 2014 and the letter entitled *Bringelly Brickworks – Biodiversity Offsets*, dated 2 June 2014
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
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	*State Environmental Planning Policy (Sydney Regional Growth Centres) 2006*
Ha	Hectare
Incident	A set of circumstances that: • 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	*National Parks and Wildlife Act 1974*
OEH	NSW Office of Environment and Heritage
POEO Act	*Protection of the Environment Operations Act 1997*
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

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

Table 1: Operating Hours

Activity	***Operating Hours***
• 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

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	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

3. 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 $\mu g/m^3$
Particulate matter < 10 µm (PM_{10})	Annual	[a] 30 $\mu g/m^3$

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:
   (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.

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:
   (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.

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:
  - o quantity of water required to support operations;
  - o sources and security of water supply;
  - o water use and management on site;
  - o reporting procedures; and
  - o 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:
  - o clean water diversions;
  - o erosion and sediment controls;
  - o the dirty water management system; and
  - o 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:
  - o any surface water discharges;

- o the effectiveness of the water management system; and
  - o 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:
  - o groundwater inflows to the quarry pit; and
  - o 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)	• Safe, stable and non-polluting • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native species and habitat

Surface infrastructure	• To be decommissioned and removed (unless the Secretary agrees otherwise)
Final void	• Minimise the size, depth and slope of the batters of the final void • Minimise the drainage catchment of the final void
Quarry pit floor	• Landscaped and revegetated using native flora species, above the anticipated final void water level
Community	• 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:
    (a) be prepared in consultation with DRE and Camden Council;
    (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;
    (c) provide details of the conceptual final landform and associated final land uses for the site;
    (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;
    (e) inform the Rehabilitation Management Plan (prepared in accordance with condition 26 of this consent); and
    (f) 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:
    (a) be prepared in consultation with OEH, DRE, DPI Water 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) 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);
    (d) 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;

    (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggers for any necessary remedial action;
    (f) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and
    (g) 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.

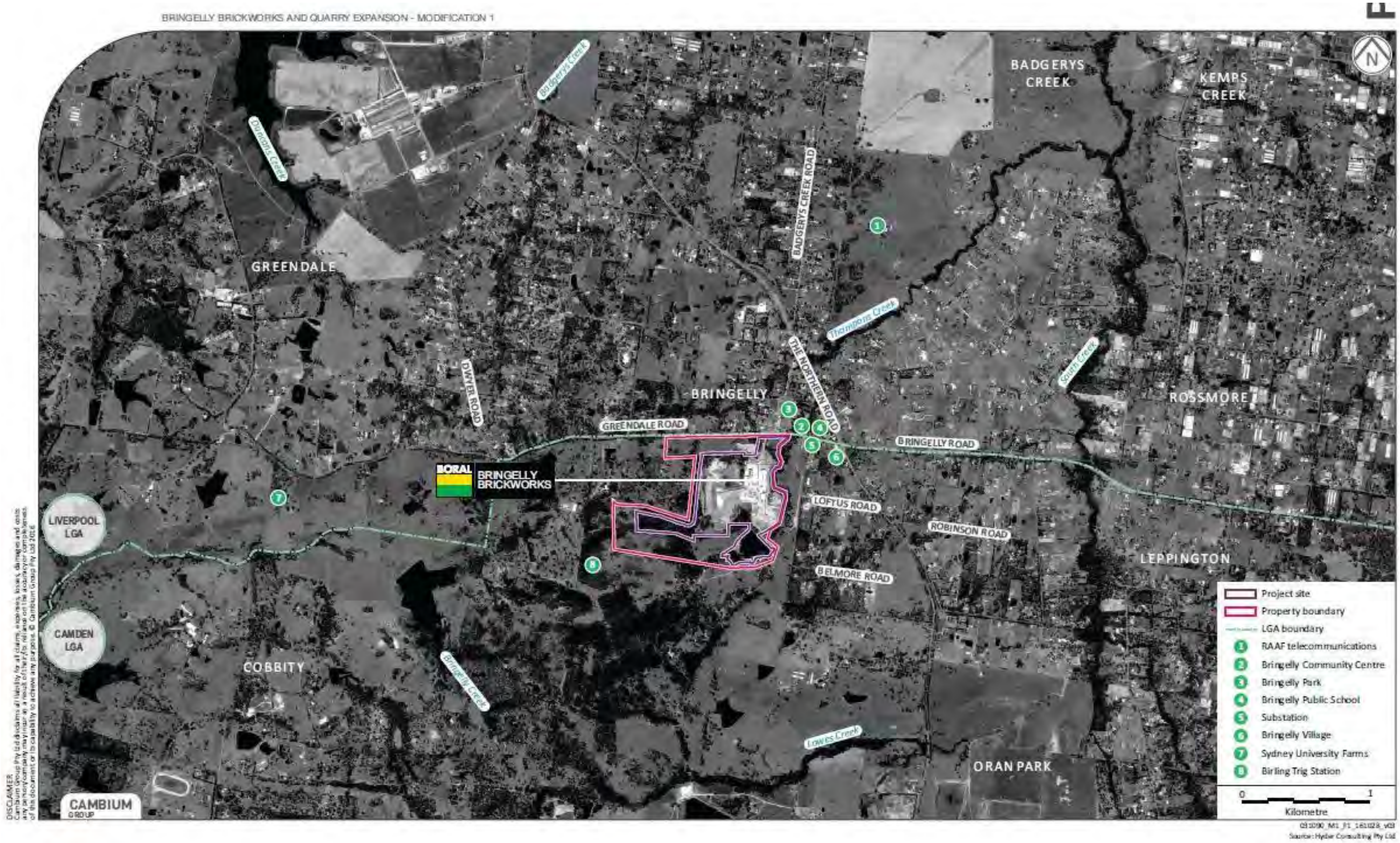
ACCESS TO INFORMATION

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

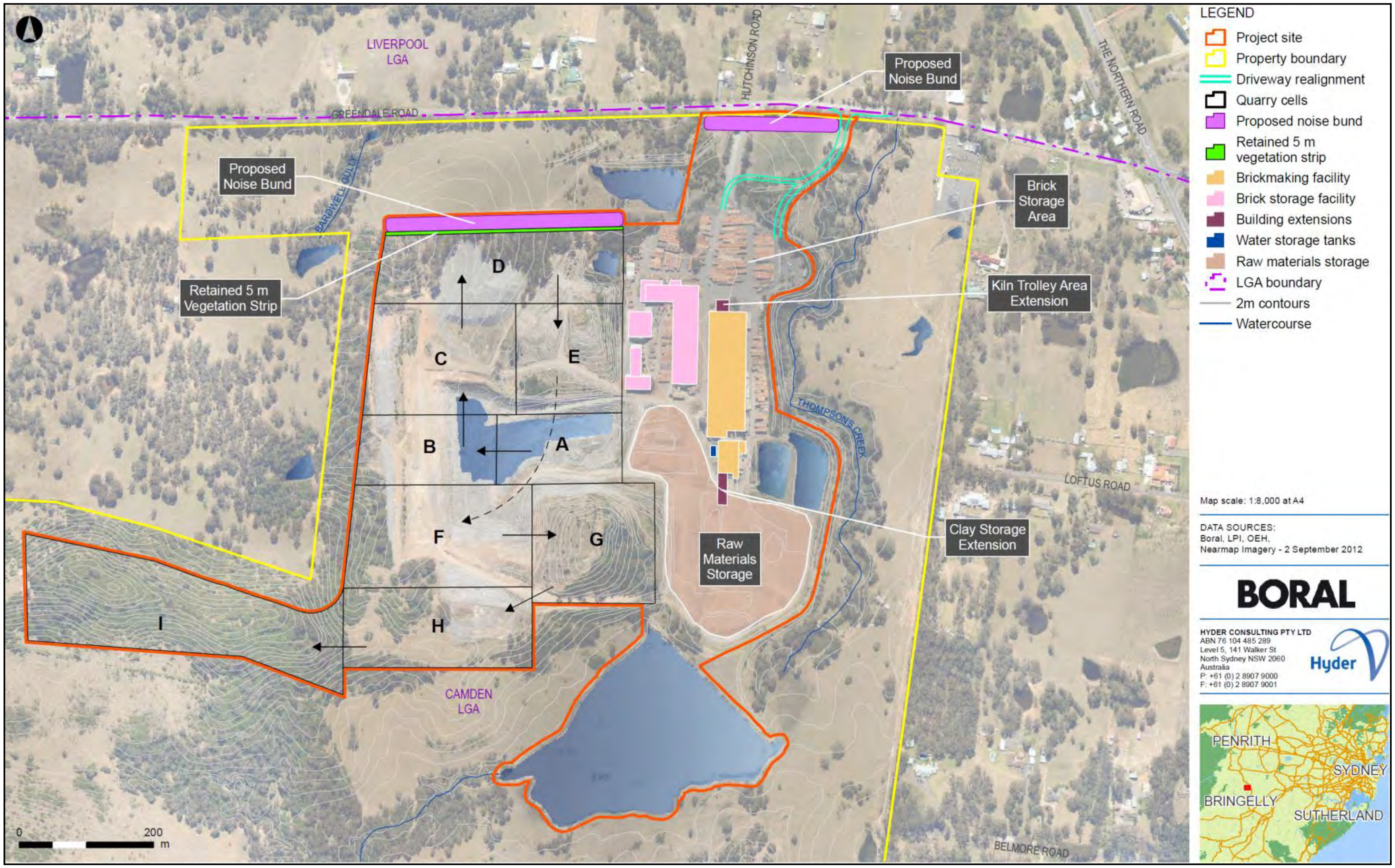
(b) keep this information up-to-date,

to the satisfaction of the Secretary.

APPENDIX 1
DEVELOPMENT AREA



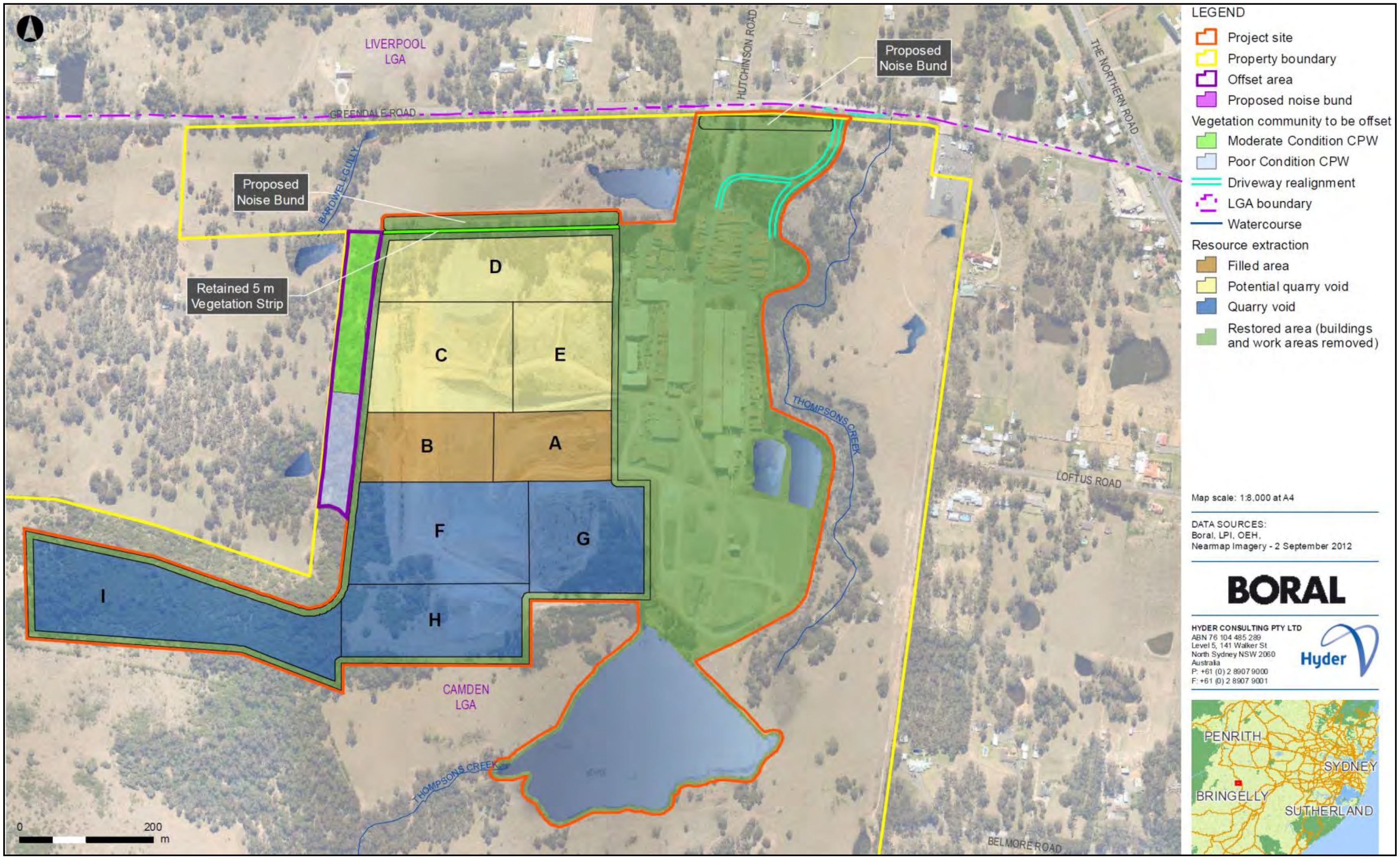
APPENDIX 2
DEVELOPMENT LAYOUT



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 ºC and 3ºC/100 m and wind speeds greater than 2 m/s at 10 m above ground level; or
   (c) temperature inversion conditions greater than 3ºC/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 date, 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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mac

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Document Information

Noise Monitoring Assessment

PGH Bringelly Brickworks

Bringelly, NSW

Quarter Ending August 2025

Prepared for: PGH Bricks & Pavers Pty Ltd

60 Greendale Road

Bringelly NSW 2256

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Field Officer: Daniel Brown

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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 60 Greendale Road, Bringelly, NSW.

This assessment has been undertaken for the quarterly period ending August 2025, and forms part of the annual noise monitoring program to address conditions outlined in the Development Consent and Environmental Protection Licence (EPL).

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;
- NSW Environment Protection Authority (EPA's), Approved Methods for the measurement and analysis of environmental noise in NSW, 2022;
- Environment Protection Licence EPL #1808 (EPL);
- Bringelly Brickworks Noise Management Plan (NMP Reference: BRK-BRI-NMP Version 4, dated 12 December 2019), 2019;
- Bringelly Brickworks Development Consent, 2015 (SSD_5684); and
- Standards Australia 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**.

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2 Noise Criteria

Section L4 of the projects EPL (EPL #1808) outlines the applicable operational noise criteria for all privately owned receivers surrounding the project. The criteria outlined in the EPL is reproduced below in **Table 1** along with relevant noise conditions:

> *L4.1 Noise from the mobile plant must not exceed an LA_{10} (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 LA_{10} (15 minute) noise emission criterion of 35dB(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 meters 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.*

Table 1 EPL Noise Criteria[1]

Receiver	Activity	All Operating Periods dB LA10(15min)
All receiver locations	Mobile Plant	35
	Total Noise from Premises	

Note 1: Noise criteria adopted from the EPL (EPL #1808).

The Bringelly Brickworks NMP outlines the applicable noise criteria for representative residential receivers surrounding the site and are presented in **Table 2**. 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 2 Development Consent 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	N/A	
	R3, R4, R14	46		
	R15, R17	45		
	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, see **Appendix B**) 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 (Reference: Muller Acoustic Consulting Pty Ltd, MAC190946LR1, 27 September 2019).

FIGURE 1

SITE LAYOUT

MAC190946-02

PGH Bringelly Brickworks

KEY

Monitoring Locations

Receivers

0 100 200 300 400 m

N

mac Muller Acoustic Consulting

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3 Methodology

3.1 Locality

PGH Bringelly Brickworks is located at 60 Greendale Road, Bringelly, NSW. Receivers in the locality surrounding the site are primarily rural/residential and for consistency the naming conventions for each receiver have been retained from historic noise assessments. The monitoring locations with respect to PGH are presented in the locality plan shown in **Figure 1**.

3.2 Assessment Methodology

The attended noise measurements were conducted in general accordance with the procedures described in Standards Australia AS 1055:2018, "Acoustics - Description and Measurement of Environmental Noise" and as per Approved Methods for the measurement and analysis of environmental noise in NSW (EPA, 2022). Measurements were conducted using a Svantek Type 1, 971 noise analyser. All acoustic instrumentation used carries appropriate and current NATA (or manufacturer) calibration certificates with records of all calibrations maintained by MAC as per Approved Methods for the measurement and analysis of environmental noise in NSW (EPA, 2022) and complies with AS/NZS 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 ±0.5dBA.

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 Thursday 17 July 2025 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 Meteorological Conditions

Weather data for the noise assessment period was sourced from Badgerys Creek AWS Site 67108 as well as operator measured conditions at each EPL nominated receiver location. The data was used to determine prevailing meteorological conditions at the time of the attended measurements. Meteorological data is presented in **Table 3** and are generally below levels where noise limits are applicable. Furthermore, wind speed at the microphone height satisfies requirements of Fact Sheet A of the NPI.

Table 3 Prevailing Meteorological Conditions

Date & Time	Badgerys Creek AWS Site 67108 (10m AGL)		Operator Measured Weather Monitoring Location (1.8m AGL)	
	Wind Direction	Wind (m/s)	Wind Direction	Wind (m/s)
17/07/2025 14:17	NNE	1.1	NW	0.1
17/07/2025 14:40	NNE	1.9	NW	0.5
17/07/2025 15:01	NNE	1.9	NW	0.1
17/07/2025 15:19	NNE	1.1	NW	0.1
17/07/2025 15:39	NNE	1.1	NW	0.1
17/07/2025 20:11	WNW	0.5	NW	0.1
17/07/2025 20:32	WNW	1.6	NW	0.1
17/07/2025 20:52	WNW	3.5	NW	0.1
17/07/2025 21:10	SW	1.9	NW	0.1
17/07/2025 21:30	SW	1.9	NW	0.1
17/07/2025 22:00	WSW	4.1	NW	0.1
17/07/2025 22:19	WSW	1.1	NW	0.1
17/07/2025 22:38	N	0.0	NW	0.1
17/07/2025 22:57	WSW	1.6	NW	0.1
17/07/2025 23:19	WSW	1.1	NW	0.1

4.2 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 4**.

Table 4 Operator-Attended Noise Survey Results - Location N1

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
17/07/2025	14:40 (Day)	73	67	53	40	52	WD: NW WS: 0.5m/s Rain: Nil	Traffic 38-73 Other industrial 40-47 Birds 39-65 Aircraft 43-55 PGH inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
17/07/2025	20:32 (Evening)	55	53	48	44	50	WD: NW WS: 0.1m/s Rain: Nil	Traffic 41-55 Dogs barking 43-48 Wildlife 44-46 Residential generator 44-46 PGH barely audible <35
PGH Site $L_{A10(15min)}$ Contribution								<35
17/07/2025	22:57 (Night)	51	43	39	36	40	WD: NW WS: 0.1m/s Rain: Nil	Insects / frogs 34-40 Dogs barking 40-46 Local residential noise 43-51 Traffic 34-42 PGH inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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 N3

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N3 for the NMA are presented in **Table 5**.

Table 5 Operator-Attended Noise Survey Results - Location N3

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
17/07/2025	15:01 (Day)	78	73	61	44	65	WD: NW WS: 0.1m/s Rain: Nil	Traffic 40-78 Birds 41-68 PGH inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
17/07/2025	20:52 (Evening)	74	69	56	44	57	WD: NW WS: 0.1m/s Rain: Nil	Insects / frogs 42-45 Traffic 42-74 Wildlife 43-48 Dogs barking 45-50 Local residential noise 44-56 PGH barely audible <35
PGH Site $L_{A10(15min)}$ Contribution								<35
17/07/2025	22:37 (Night)	62	55	45	40	46	WD: NW WS: 0.1m/s Rain: Nil	Traffic 37-62 Insects 38-42 Aircraft 41-48 PGH inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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 N14

The monitored noise level contributions and observed meteorological conditions for each assessment period at Location N14 for the NMA are presented in **Table 6**.

Table 6 Operator-Attended Noise Survey Results - Location N14

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
17/07/2025	15:19 (Day)	87	83	70	46	73	WD: NW WS: 0.1m/s Rain: Nil	Traffic 43-87 Birds 41-60 PGH truck exiting site 45-56 (20 seconds)
PGH Site $L_{A10(15min)}$ Contribution								<35
17/07/2025	21:10 (Evening)	76	71	58	39	62	WD: NW WS: 0.1m/s Rain: Nil	Insects / frogs 36-76 Traffic 36-76 Birds 40-65 Dogs barking 43-51 PGH mobile plant 38 (20 seconds)
PGH Site $L_{A10(15min)}$ Contribution								<35
17/07/2025	22:19 (Night)	71	67	54	37	57	WD: NW WS: 0.1m/s Rain: Nil	Insects / frogs 37-44 Traffic 35-71 Aircraft 38-46 PGH reverse alarm 36-39 (15 seconds)
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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 period.

4.5 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 7**.

Table 7 Operator-Attended Noise Survey Results - Location N20

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		L_{Amax}	L_{A1}	L_{Aeq}	L_{A90}	L_{A10}		
17/07/2025	15:39 (Day)	85	81	68	45	71	WD: NW WS: 0.1m/s Rain: Nil	Birds 39-52 Traffic 41-85 Aircraft 44-58 PGH inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
17/07/2025	21:30 (Evening)	85	76	62	34	61	WD: NW WS: 0.1m/s Rain: Nil	Insects / frogs 30-40 Traffic 34-85 PGH inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
17/07/2025	22:00 (Night)	85	77	62	34	61	WD: NW WS: 0.1m/s Rain: Nil	Traffic 35-85 Insects / frogs 32-39 PGH inaudible
PGH Site $L_{A10(15min)}$ Contribution								<35
PGH Site $L_{A1(max)}$ Contribution								<35

Note 1: 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.

4.6 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 8**.

Table 8 Operator-Attended Noise Survey Results - Location N35

Date	Time (hrs)[1]	Descriptor (dBA re 20µPa)					Meteorology	Description and SPL, dBA
		LA_{max}	LA_{1}	LA_{eq}	LA_{90}	LA_{10}		
17/07/2025	14:17 (Day)	66	62	50	37	53	WD: NW WS: 0.1m/s Rain: Nil	Birds 37-62 Traffic 34-43 Aircraft 38-66 Dogs barking 40-44 Local construction 36-40 PGH inaudible
PGH Site $LA_{10(15min)}$ Contribution								<35
17/07/2025	20:11 (Evening)	64	52	43	38	45	WD: NW WS: 0.1m/s Rain: Nil	Insects / frogs 37-43 Traffic 36-47 Aircraft 42-64 Dogs barking 40-51 PGH impact 38 (3 seconds)
PGH Site $LA_{10(15min)}$ Contribution								<35
17/07/2025	23:19 (Night)	50	45	37	34	40	WD: NW WS: 0.1m/s Rain: Nil	Insects / frogs 34-38 Traffic 32-50 PGH reverse alarm <35 (10 seconds)
PGH Site $LA_{10(15min)}$ Contribution								<35
PGH Site $LA_{1(max)}$ Contribution								<35

Note 1: 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.

5 Discussion

5.1 Assessment Results - Location N1

Monitoring on Thursday 17 July 2025 identified that PGH activities were audible during the evening measurement period at location N1. The site contributions were estimated to be below the relevant noise limits for each assessed period. Extraneous sources such as traffic, birds, aircraft, local residential noise, frogs, wildlife, non-project related industrial noise, insects and dogs barking were audible during the measurement period.

5.2 Assessment Results - Location N3

Monitoring on Thursday 17 July 2025 identified that PGH activities were audible during the evening measurement period at location N3. The site contributions were estimated to be below the relevant noise limits for each assessed period. Extraneous sources such as insects, frogs, aircraft, traffic, local residential noise, birds and wildlife were audible during the measurement period.

5.3 Assessment Results - Location N14

Monitoring on Thursday 17 July 2025 identified that PGH activities were audible during all measurement periods at location N14. The site contributions were estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as traffic, birds, insects, frogs, aircraft, local residential noise and dogs barking were audible during the measurement period.

5.4 Assessment Results - Location N20

Monitoring on Thursday 17 July 2025 identified that PGH activities were inaudible during all measurement periods at location N20. The estimated site contributions estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as birds, traffic, frogs, insects and aircraft were audible during the measurement period.

5.5 Assessment Results - Location N35

Monitoring on Thursday 17 July 2025 identified that PGH activities were audible during the evening and night measurement periods at location N35. The site contributions were estimated to be measured below the relevant noise limit for each assessed period. Extraneous sources such as insects, birds, traffic, local construction noise, aircraft and dogs barking were audible during the measurement period.

6 Conclusion

Muller Acoustic Consulting Pty Ltd (MAC) has completed a Noise Monitoring Assessment (NMA) commissioned by PGH Bricks & Pavers Pty Ltd (PGH) for the PGH Bringelly Brickworks (the site) at 60 Greendale Road, Bringelly, NSW. The assessment was completed to assess the site's compliance with the relevant noise criteria during the quarter period ending August 2025.

Attended noise monitoring was undertaken on Thursday 17 July 2025, at five representative receiver locations. The assessment has identified that noise emissions generated by Bringelly Brickworks were measured to be 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**.

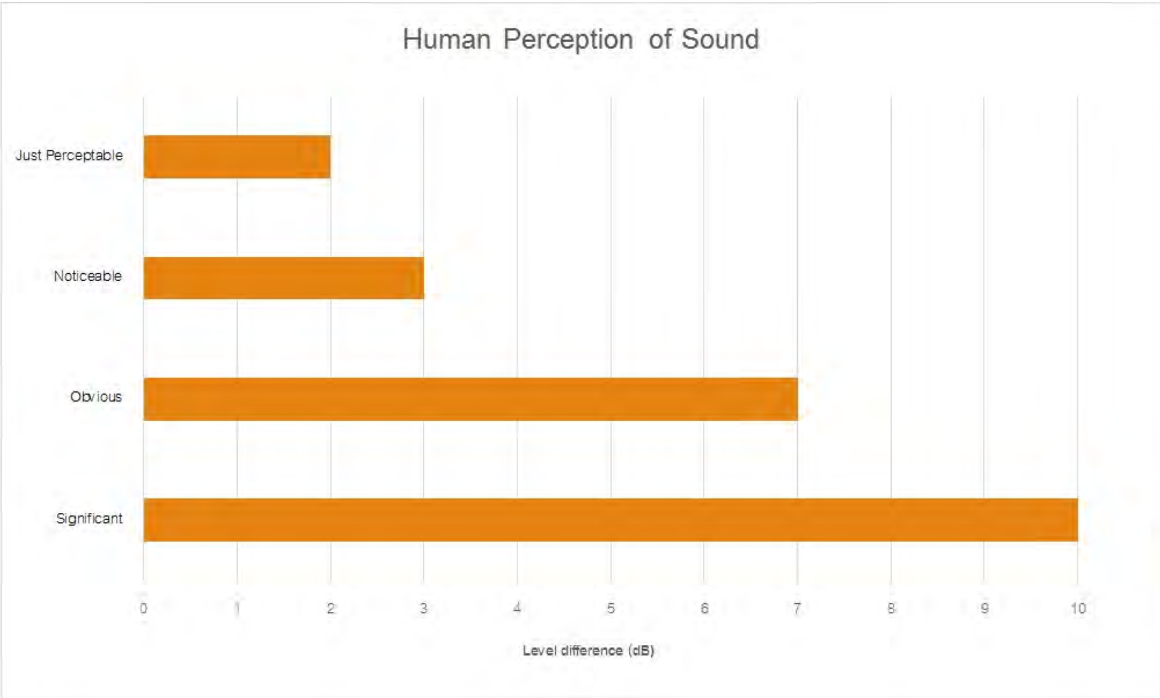
Table A1 Glossary of Acoustical Terms	
Term	Description
1/3 Octave	Single octave bands divided into three parts
Octave	A division of the frequency range into bands, the upper frequency limit of each band being twice the lower frequency limit.
ABL	Assessment Background Level (ABL) is defined in the NPI 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.
LAmax	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.log10 (W/Wo). 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	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 *Threatened Species Conservation Act 1995*
EIS	Environmental Impact Statement titled *Bringelly Brickworks and Quarry Expansion* (2 volumes), dated September 2013, as modified by the Response to Submissions titled, *Bringelly Brickworks and Quarry Expansion, Response to Submissions* dated February 2014 and the letter entitled *Bringelly Brickworks – Biodiversity Offsets*, dated 2 June 2014
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
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	*State Environmental Planning Policy (Sydney Regional Growth Centres) 2006*
Ha	Hectare
Incident	A set of circumstances that: • 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	*National Parks and Wildlife Act 1974*
OEH	NSW Office of Environment and Heritage
POEO Act	*Protection of the Environment Operations Act 1997*
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

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

Table 1: Operating Hours

Activity	*Operating Hours*
• 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

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	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

3. 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:
   (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.

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:
   (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:
         - o the effectiveness of the air quality management system; and
         - o 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;

    - o the effectiveness of the water management system; and
    - o 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:
    - o groundwater inflows to the quarry pit; and
    - o 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)	• Safe, stable and non-polluting • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of local native species and habitat

Surface infrastructure	• To be decommissioned and removed (unless the Secretary agrees otherwise)
Final void	• Minimise the size, depth and slope of the batters of the final void • Minimise the drainage catchment of the final void
Quarry pit floor	• Landscaped and revegetated using native flora species, above the anticipated final void water level
Community	• 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:
    (a) be prepared in consultation with DRE and Camden Council;
    (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;
    (c) provide details of the conceptual final landform and associated final land uses for the site;
    (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;
    (e) inform the Rehabilitation Management Plan (prepared in accordance with condition 26 of this consent); and
    (f) 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:
    (a) be prepared in consultation with OEH, DRE, DPI Water 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) 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);
    (d) 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;
    (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggers for any necessary remedial action;
    (f) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and
    (g) 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.

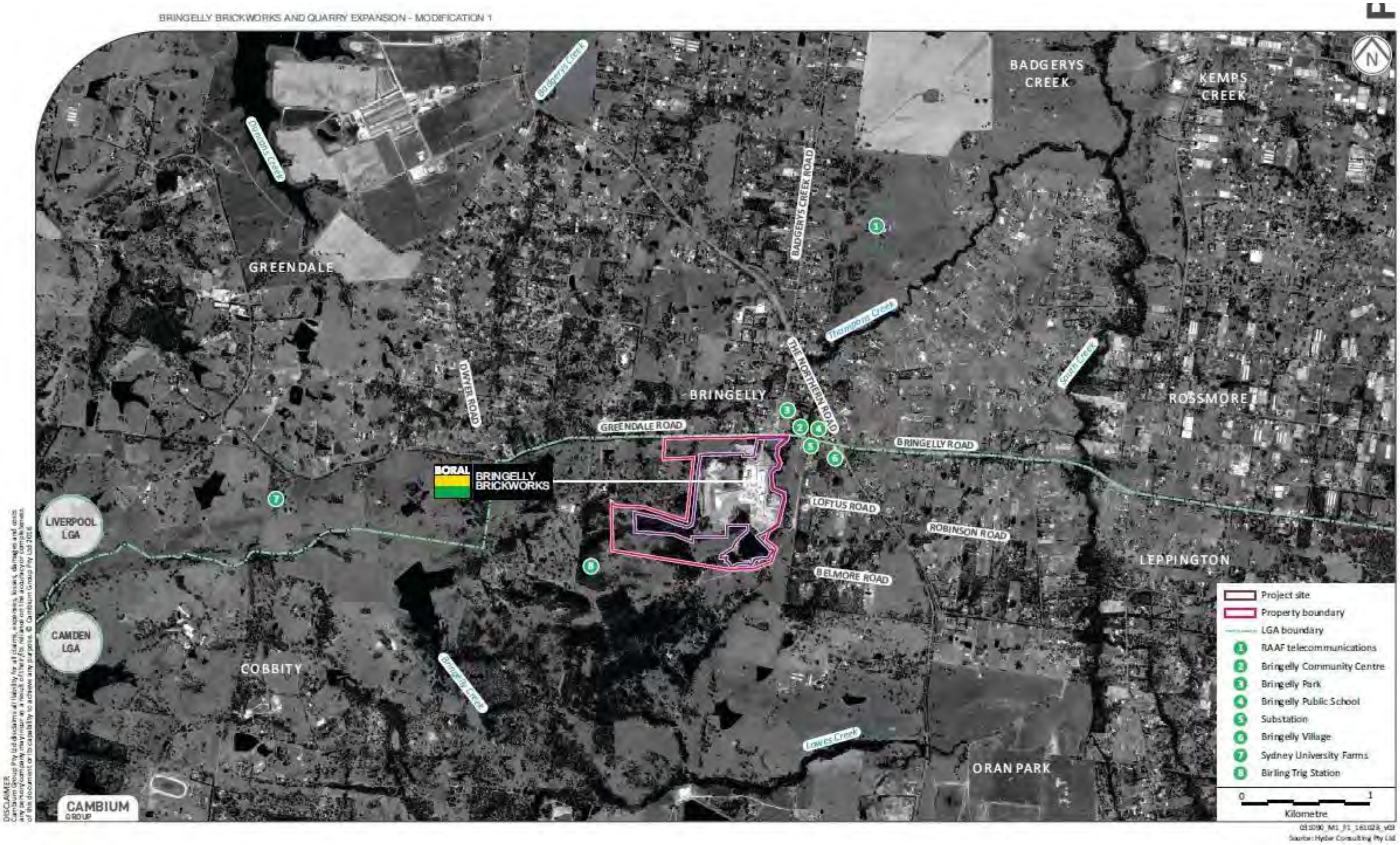
ACCESS TO INFORMATION

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

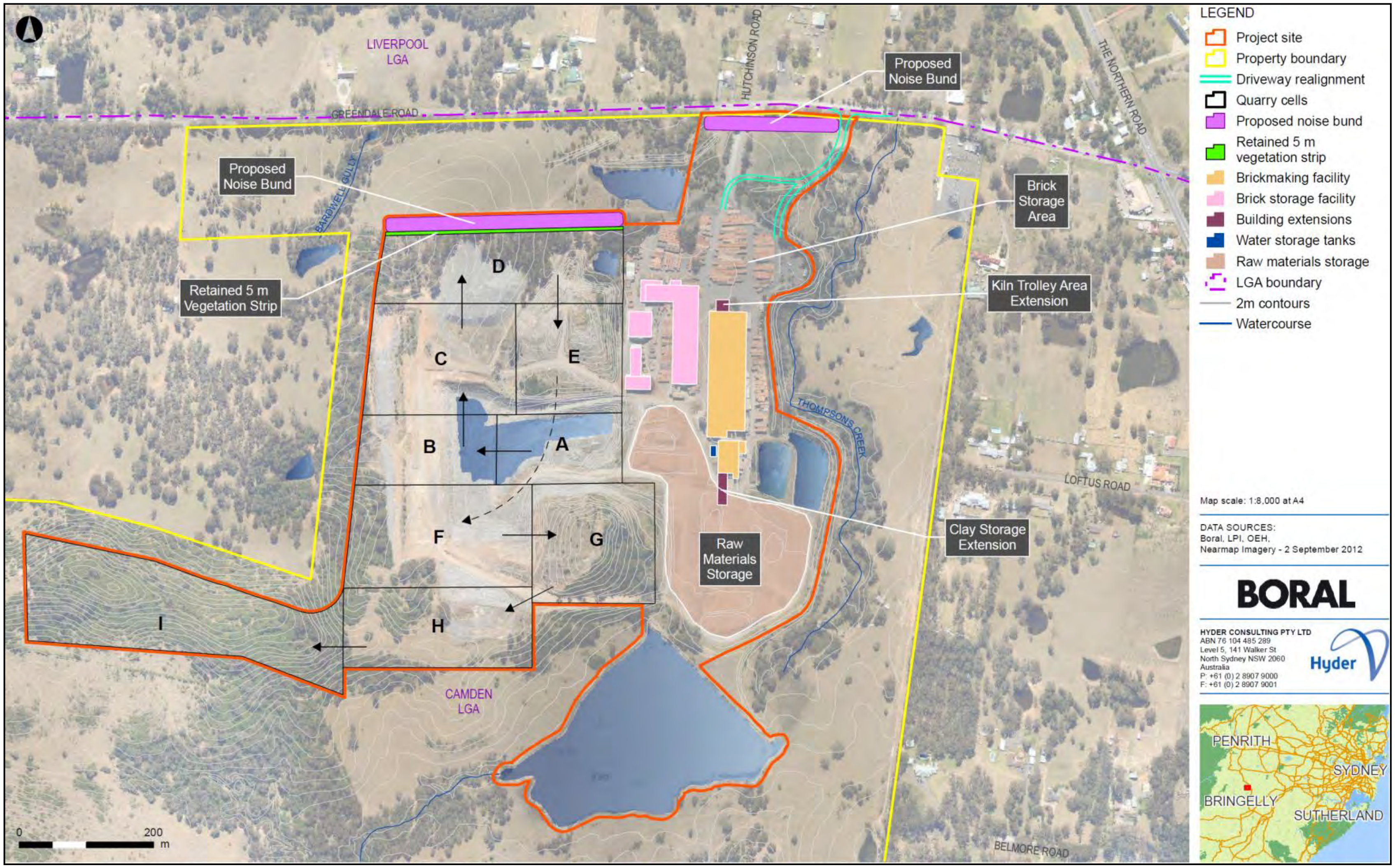
(b) keep this information up-to-date,

to the satisfaction of the Secretary.

APPENDIX 1
DEVELOPMENT AREA



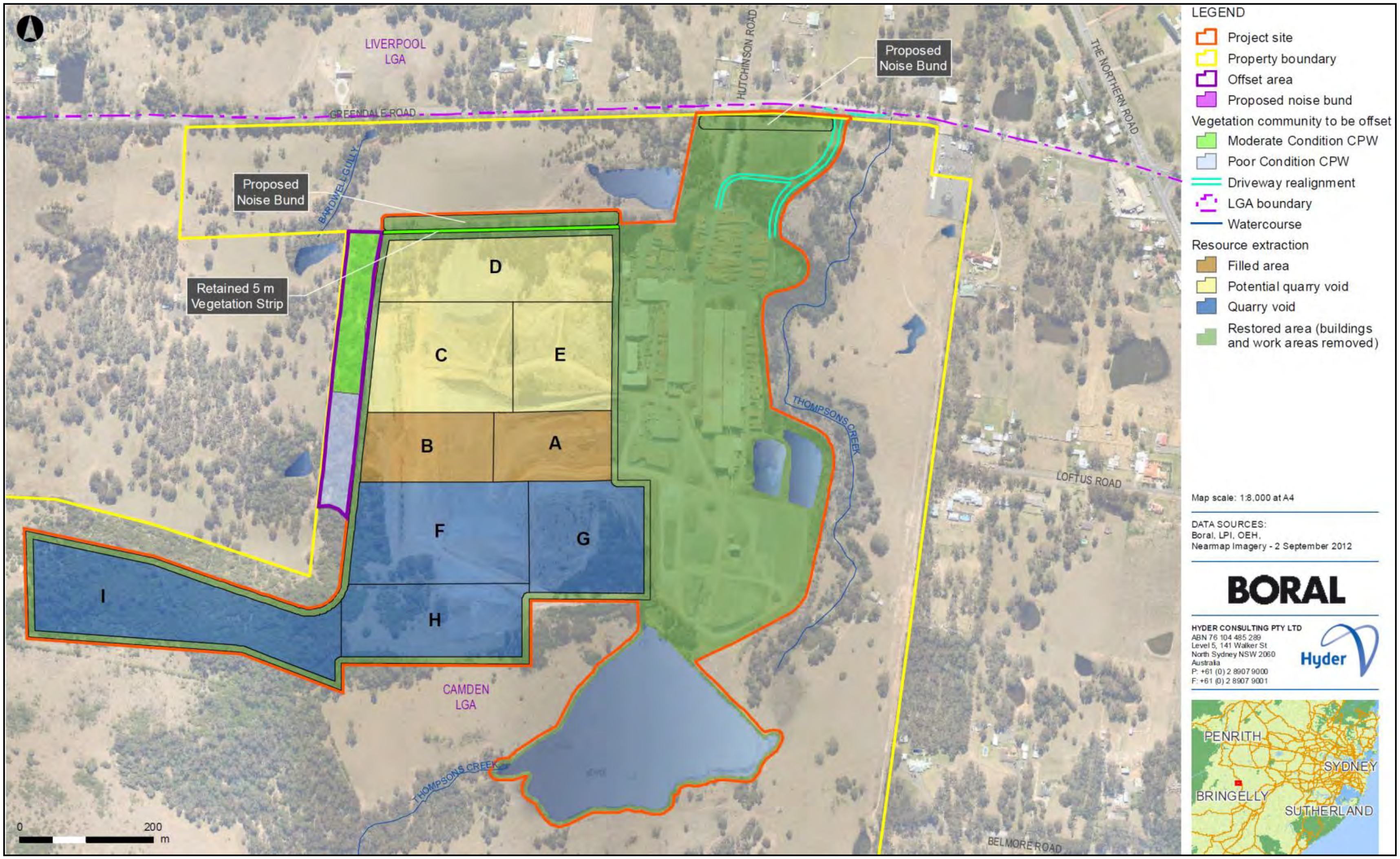
APPENDIX 2
DEVELOPMENT LAYOUT



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 ºC and 3ºC/100 m and wind speeds greater than 2 m/s at 10 m above ground level; or
   (c) temperature inversion conditions greater than 3ºC/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 date, 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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Muller Acoustic Consulting

Appendix J
Annual Rehabilitation Report

NSW GOVERNMENT

NSW Resources Regulator

ARR0001542

BRINGELLY CLAY MINE ANNUAL REHABILITATION REPORT

Monday 1 July 2024 to Monday 30 June 2025

Summary table

DETAIL	
Mine	Bringelly Clay Mine
Reference	ARR0001542
Annual report period commencement date	Monday 1 July 2024
Annual report period end date	Monday 30 June 2025
Forward program	FWP0001456
Mining leases	ML 1731 (1992)
Lease holder(s)	Pgh Bricks & Pavers Pty Limited
Contact	Sinead Kelly
Date of submission	Monday 25 August 2025

Important

The department may make the information in your report and any supporting information available for inspection by members of the public, including by publication on its website or by displaying the information at any of its offices. If you consider any part of your report to be confidential, please communicate this to the department via the message function on this submission within the NSW Resources Regulator Portal.

Mine details

Project description

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. 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.

Life of mine

11 years

Current development consents, leases and licences

Development consents granted under the *Environmental Planning and Assessment Act 1979*

SSD6484MOD1
SSD6484MOD1
SSD6484MOD1
SSD6484MOD1
SSD6484MOD1
SSD6484MOD1
SSD6484MOD1

Authorisations covering the mining area granted under the *Mining Act 1992*

ML 1731 (1992)

Any other approvals, licences, or authorities issued by government agencies that are relevant to the progress of mining operation and rehabilitation activities

EPL1808

Summary of the scope and/or purpose of the new applications or modifications to existing approvals (if applicable)

Not applicable.

Changes to land ownership and land use

Not applicable.

Surface disturbance and rehabilitation activities during the reporting period

Surface disturbance and rehabilitation activities that were conducted and an analysis of the progress against the rehabilitation schedule

Mining progressed to the south-eastern portion of the mining lease during the reporting period. Overburden was placed in the eastern portion of the pit for storage. A larger volume of overburden than anticipated (see Key Production Milestones table) lead to this new storage area. The infrastructure area increased to improve transport management on the site as well as a new topsoil storage area to the west. Rehabilitation works have continued on the bund parallel to the western boundary, and this landform is now completed.

Rehabilitation planning activities that were conducted, including any specialist studies

No specific rehabilitation planning activities or specialist studies where conducted during the reporting period.

Overview of subsidence repair and/or remediation works undertaken

Not applicable for this site.

Overview of rehabilitation management and maintenance activities

No weed spraying was conducted on site within the reporting period. Ongoing management of rehabilitation areas will involve regular visual assessment of weed coverage and recurrent spraying if deemed necessary.

Details of any rehabilitation actions taken as required by any letters, notices or directions issued by government agencies, including the NSW Resources Regulator

No letters, notices or directions were received by any agency during the reporting period.

Details of any rehabilitation areas that have achieved the final land use

No rehabilitation areas have yet reached their final land use. The Rehabilitation Management Plan as approved by DPIE details progressive rehabilitation to occur in logical graduations between 2023 and 2067. Rehabilitation goals set by the RMP for the 2022 - 2027 stage are in progress, with focus on successful ecosystem establishment on existing rehabilitation areas.

NSW Resources Regulator

Key production milestones

MATERIAL	UNIT	FWP0001456 YEAR 1	THIS REPORT
Stripped topsoil (if applicable)	(m^3)	400	5,272
Rock/overburden	(m^3)	15,000	24,624
Ore	(Mt)	0.17	0.07
Reject material[1]	(Mt)	0	0
Product	(Mt)	0	0

[1] This includes coarse rejects, tailings and any other wastes resulting from beneficiation.

Disturbance and rehabilitation statistics

Current disturbance and rehabilitation progression

	ELEMENT	UNIT	THIS REPORT
A1	Total disturbance footprint – surface disturbance	(ha)	25.7
B	Total active disturbance	(ha)	24.09
C	Rehabilitation – land preparation	(ha)	1.6
D	Ecosystem and land use establishment	(ha)	0
E	Ecosystem and land use development	(ha)	0
F	Rehabilitation completion	(ha)	0

Rehabilitation key performance indicators (KPIs)

	ELEMENT	UNIT	THIS REPORT
G	New disturbance area	(ha)	1.87
H	New rehabilitation commenced during annual reporting period	(ha)	-2.03
I	Established rehabilitation	(ha)	0
J	Annual rehabilitation to disturbance ratio	%	-1.09
K	Rehabilitated land to total mine footprint	%	0

Progressive achievement of established rehabilitation

	ELEMENT	UNIT	THIS REPORT
L	**Established rehabilitation for agricultural final land uses**	%	0
M	**Established rehabilitation for native ecosystem final land uses**	%	0
N	**Established rehabilitation for other/non-vegetated final land uses**	%	0

Variation to the rehabilitation schedule

Identify the components of the most recent forward program that were not achieved

The proposed works were generally in accordance with the most recent forward program. During the preparation of this 2025 ARR, it was noted that in previous ARRs an overburden emplacement area had incorrectly been considered rehabilitation in the north of the site. This has been re-categorised as overburden storage area in the 2025 ARR as the emplacement is temporary and the area will be mined in the future. This is shown by the -2.03Ha area in the KPI table above.

Key factors that delayed progressive rehabilitation

Not applicable.

Outline actions that will be included in the forward program and carried out to minimise disturbance and undertake progressive rehabilitation as far as reasonably practical

Not applicable.

Rehabilitation monitoring and research findings

Rehabilitation monitoring

The rehabilitation monitoring carried out in the annual reporting period

Ecological monitoring carried out in July 2023 by a suitably qualified ecologist confirmed that waste material from vegetation slashing in areas of high weed density was unlikely to result in significant weed re-infestation once the shredded material was mixed with topsoil and spread over bund-walls. Active monitoring of these areas has been conducted throughout the reporting period and no weed reinfestation has been reported. Nest Box monitoring has been conducted 6 monthly in "Cell G", and recruitment of bat species in roosting boxes is steadily improving.

Status of performance against rehabilitation objectives and rehabilitation completion criteria

The monitoring program that has been implemented

Rehabilitation progression is annually evaluated against the expectations & goals contained within the approved rehabilitation objectives, rehabilitation completion criteria and final landform and rehabilitation plan.

Are all rehabilitation areas in Landform Establishment phase or higher represented in the monitoring program to assess performance against the rehabilitation objectives and approved or, if not yet approved rehabilitation completion criteria and final landform and rehabilitation plan?

0

Year rehabilitation areas will be included as part of the monitoring program

2026

An appraisal of whether rehabilitation is moving towards achieving the proposed rehabilitation objectives, approved or, if not yet approved, rehabilitation completion criteria and final landform and rehabilitation plan as soon as reasonably practicable.

Rehabilitation is occurring progressively in line with the approved RMP and associated rehabilitation objectives.

Appraisal description

Rehabilitation is moving towards achieving the final land use as soon as reasonably practicable.

Rehabilitation monitoring program findings

Control analogue sites will be identified in consultation with a MEG representative and person(s) suitably qualified in flora and landform assessment. It is expected that these sites will be used as a comparison to assist in determining whether the objectives relating to slope stability and vegetation coverage have been achieved. Progress towards identifying these sites will be reported in the next annual review. Rehabilitation monitoring in active rehabilitation areas will involve ongoing visual assessment of priority weeds in active rehabilitation areas and consequent spraying/management if required. Once these areas reach the Ecosystem and Landuse Establishment phase of rehabilitation, rehabilitation establishment monitoring as described in the approved RMP will apply.

Performance issues and their causes including identification of any knowledge gaps that must be addressed

Nil

Outcomes of rehabilitation research and trials

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?

A
RR0001542

Outcomes of completed trials and research

N/A

Attachment 1 – Reporting Definitions

REPORTING CATEGORY		DEFINITION
A1	Total disturbance footprint – surface disturbance	All areas within a mining lease that either have at some point in time or continue to pose a rehabilitation liability due to surface disturbance activities. The total disturbance footprint is the sum of the total active disturbance, decommissioning, landform establishment, growth medium development, ecosystem and land use establishment, ecosystem and land use development and rehabilitation completion (see definitions below). Underground mining operations should not include the footprint of underground mining areas/subsidence management areas in the total disturbance footprint.
A2	Underground Mining Area	Underground mining operations areas/subsidence management areas.
B	Total active disturbance	Includes on-lease exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste rock emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped) and temporary stabilised areas (e.g. areas sown with temporary cover crops for dust mitigation and temporary rehabilitation).
C	Rehabilitation – land preparation	Includes the sum of all disturbed land within a mining lease that have commenced any, or all, of the following phases of rehabilitation – decommissioning, landform establishment and growth medium development. Refer to the glossary of terms in this document for the definition of these phases of rehabilitation.

REPORTING CATEGORY		DEFINITION
D	Ecosystem and land use establishment	Includes the area which has been seeded/planted with the target vegetation species for the intended final land use. However, vegetation has not matured to a stage where it can be demonstrated that it will be sustainable for the long term and or require only a maintenance regime consistent with target reference/analogue sites. Typically, rehabilitation areas would be in this phase for at least two years (and usually more) before rehabilitation can be classified as being in the ecosystem and land use development phase. This phase does not apply to infrastructure areas that are being retained as part of final land use for the site.
E	Ecosystem and Land Use Development	Rehabilitation has matured to a level where target revegetation outcomes are on a trajectory towards meeting the final rehabilitation objectives and rehabilitation completion criteria (as verified by monitoring). This phase includes infrastructure areas that are to be retained for an approved post mining land use, following completion of all necessary measures to render the infrastructure fit for this purpose (for example structural integrity).
F	Rehabilitation Completion	The NSW Resources Regulator has determined in writing that the mining area has achieved the approved rehabilitation objectives and approved rehabilitation completion criteria and final landform and rehabilitation plan following the submission of *Form: ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate and/or notification of mine or petroleum site closure.*
G	New active disturbance area	The area of any new active disturbance that has been created during the annual reporting period (definition A1 in Table 5).
H	New rehabilitation commenced during annual reporting period	The sum of any new rehabilitation commenced in the annual reporting period. These areas may be in the rehabilitation land preparation phase or the ecosystem & land use establishment phase (definitions C and D in Table 5).
I	Established rehabilitation (hectares)	The total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E & F in Table 5).

NSW Resources Regulator

REPORTING CATEGORY		DEFINITION
J	Annual rehabilitation to disturbance ratio	The rehabilitation to disturbance ratio (H/G) indicates how many hectares of new rehabilitation are undertaken for each hectare of land disturbed during the year. A ratio of 1/1 indicates that the area of new rehabilitation and disturbance in that year are the same.
K	% Rehabilitated land to total mine footprint	The proportion of the total mine footprint (area of land that has been disturbed by past or present surface disturbance activities) that has established rehabilitation (I/A1 x 100). For open cut mining, the proportion of the total mine footprint verified to be “established rehabilitation” should substantially increase as an operation progresses towards mine closure.
L	Established rehabilitation for agricultural final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E & F in Table 5) that have been returned to an agricultural final land use.
M	Established rehabilitation for native ecosystem final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or rehabilitation completion phase (definitions E & F in Table 5) that have been returned to native ecosystem final land use.
N	Established rehabilitation for other/non-vegetated final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E & F in Table 5) that have been returned to other/non-vegetated final land use.

Attachment 2 – Definitions

WORD	DEFINITION
Active	In the context of rehabilitation, land associated with mining domains is considered 'active' for the period following disturbance until the commencement of rehabilitation.
Active mining phase of rehabilitation	In the context of rehabilitation, the active mining phase of rehabilitation constitutes the rehabilitation activities undertaken during mining operations such as salvaging and managing soil resources, salvaging habitat resources, and native seed collection. This phase also includes management actions taken during operations to manage risks to rehabilitation and enhance rehabilitation outcomes such as selective handling of waste rock and management of tailings emplacements.
Analogue site	In the context of rehabilitation, an analogue site is a 'reference site' that represents an example of the defining characteristics (such as vegetation composition and structure or agricultural productivity) of the final land use. Characteristics of analogue sites can be assessed to develop the rehabilitation objectives and completion criteria for final land use domains.
Annual rehabilitation report and forward program	As described in the Mining Regulation 2016.
Annual reporting period	As defined in the Mining Regulation 2016.
Closure	A whole-of-mine-life process, which typically culminates in the relinquishment of the mining lease. It includes decommissioning and rehabilitation to achieve the approved final land use(s).
Decommissioning	The process of removing mining infrastructure and removing contaminants and hazardous materials.
Decommissioning Phase of Rehabilitation	Activities associated with the removal of mining infrastructure and removal and/or remediation of contaminants and hazardous materials. In the context of the rehabilitation management plan this phase of rehabilitation may also include studies and assessments associated with decommissioning and demolition of infrastructure or works carried out to make safe or 'fit for purpose' built infrastructure to be retained for future use(s) following lease relinquishment.

WORD	DEFINITION
Department	The Department of Regional NSW.
Disturbance	See Surface Disturbance.
Disturbance area	An area that has been disturbed and that requires rehabilitation. This may include areas such as on-licence exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped), and areas requiring rehabilitation that are temporarily stabilised (i.e. managed to minimise dust generation and/or erosion).
Domain	An area (or areas) of the land that has been disturbed by mining and has a specific operational use (mining domain) or specific final land use (final land use domain). Land within a domain typically has similar geochemical and/or geophysical characteristics and therefore requires specific rehabilitation activities to achieve the associated final land use.
Ecosystem and Land Use Development	This phase of rehabilitation consists of the activities to manage maturing rehabilitation areas on a trajectory to achieving the approved rehabilitation objectives and completion criteria. For vegetated land uses this phase may include processes to develop characteristics of functional self-sustaining ecosystems, such as nutrient recycling, vegetation flowering and reproduction, and increasing habitat complexity, and development of a productive, self-sustaining soil profile. This phase of rehabilitation may include specific vegetation management strategies and maintenance such as tree thinning, supplementary plantings and weed management.
Ecosystem and Land Use Establishment	This phase of rehabilitation consists of the processes to establish the approved final land use following construction of the final landform. For vegetated land uses this rehabilitation phase includes establishing the desired vegetation community and implementing land management activities such as weed control. This phase of rehabilitation may also include habitat augmentation such as installation of nest boxes.
Exploration	Has the same meaning as that term under the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.

WORD	DEFINITION
Final landform and rehabilitation plan	As defined in the Mining Regulation 2016.
Final land use	As defined in the Mining Regulation 2016.
Form and way	Means the form and way approved by the Secretary. Approved form and way documents are available on the Department's website.
Growth Medium Development	This phase of rehabilitation consists of activities required to establish the physical, chemical and biological components of the substrate required to establish the desired vegetation community (including short lived pioneer species. This phase may include spreading the prepared landform with topsoil and/or subsoil and/or soil substitutes, applying soil ameliorants to enhance the physical, chemical and biological characteristics of the growth media, and actions to minimise loss of growth media due to erosion.
Habitat	Has the same meaning as that term under the *Biodiversity Conservation Act 2016* and the *Fisheries Management Act 1994* (as relevant).
Indicator	An attribute of the biophysical environment (e.g. pH, topsoil depth, biomass) that can be used to approximate the progression of a biophysical process. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion (i.e. defined end point). It may be aligned to an established protocol and used to evaluate changes in a system.
Land	As defined in the *Mining Act 1992.*
Landform Establishment	This phase of rehabilitation consists of the processes and activities required to construct the final landform. In addition to profiling the surface of rehabilitation areas to the approved final landform profile this phase may include works to construct surface water drainage features, encapsulate problematic materials such as tailings, and prepare a substrate with the desired physical and chemical characteristics (e.g. rock raking or ameliorating sodic materials).
Large mine	As defined in the Mining Regulation 2016.
Lease holder	The holder of a mining lease.

WORD	DEFINITION
Life of mine	The timeframe of how long a mine is approved to mine, from commencement to closure.
Mine rehabilitation portal	Means the NSW Resources Regulator's online portal that lease holders must use (via a registered account) to: ■ upload rehabilitation geographical information system (GIS) spatial data ■ develop rehabilitation GIS spatial data (using online tracing functions) ■ generate rehabilitation plans and rehabilitation statistics using the map viewer and Rehabilitation Key Performance Indicator functionalities. Data submitted to the mine rehabilitation portal is collated in a centralised geodatabase for use by the NSW Resources Regulator to regulate rehabilitation performance of lease holders.
Mining area	As defined in the *Mining Act 1992*.
Mining domain	A land management unit with a discrete operational function (e.g. overburden emplacement), and therefore similar geophysical characteristics, that will require specific rehabilitation treatments to achieve the final land use(s).
Mining land	As defined in the *Mining Act 1992.*
Native vegetation	Has the same meaning as that term under section 60B of the *Local Land Services Act 2013.*
Overburden	Material overlying coal or a mineral deposit.
Performance indicator	An attribute of the biophysical environment (for example pH, slope, topsoil depth, biomass) that can be used to demonstrate achievement of a rehabilitation objective. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion, that is, a defined end point. It may be aligned to an established protocol and used to evaluate changes in a system.

WORD	DEFINITION
Phases of rehabilitation	The stages and sequences of actions required to rehabilitate disturbed land to achieve the final land use. The phases of rehabilitation are: ▪ active mining ▪ decommissioning ▪ landform Establishment ▪ growth medium development ▪ ecosystem and land use establishment ▪ ecosystem and land use development.
Progressive rehabilitation	The progress of rehabilitation towards achieving the approved rehabilitation completion criteria. This may be described in terms of domains, phases, performance indicators and rehabilitation completion criteria.
Rehabilitation Completion	The final phase of rehabilitation when a rehabilitation area has achieved the approved rehabilitation objectives and rehabilitation completion criteria for the final land use. Rehabilitation areas may be classified as complete when the NSW Resources Regulator has determined in writing that the relevant rehabilitation obligations have been fulfilled following submission of *Form ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate* application by the lease holder.
Rehabilitation Completion criteria	As defined in the Mining Regulation 2016.
Rehabilitation cost estimate	As defined in the Mining Regulation 2016.
Rehabilitation management plan	As defined in the Mining Regulation 2016.
Rehabilitation objectives	As defined in the Mining Regulation 2016.
Rehabilitation risk assessment	As defined in the Mining Regulation 2016.
Rehabilitation schedule	The defined timeframes for progressive rehabilitation set out in the forward program.

WORD	DEFINITION
Relevant stakeholders	Means any persons or bodies who may be affected by the mining operations, including rehabilitation, carried out on the lease land, and includes: ▪ the relevant development consent authority ▪ the local council ▪ the relevant landholder(s) ▪ community consultative committee (if required under the development consent) or equivalent consultative group ▪ affected land holder(s) ▪ government agencies relevant to the final land use ▪ affected infrastructure authorities (electricity, telecommunications, water, pipeline, road, rail authorities) ▪ local Aboriginal communities, and ▪ any other person or body determined by the Minister to be a relevant stakeholder in relation to a mining lease.
Risk	The effect of uncertainty on objectives. It is measured in terms of consequences and likelihood (AS/NZS ISO 31000:2009).
Secretary	The Secretary of the Department.
Security deposit	An amount that a mining lease holder is required to provide and maintain under a mining lease condition, to secure funding for the fulfilment of obligations under the lease (including obligations that may arise in the future).
Surface disturbance	Includes activities that disturb the surface of the mining area, including mining operations, ancillary mining activities and exploration.
Tailings	A combination of the fine-grained solid material remaining after the recoverable metals and minerals have been extracted from the mined ore, and any process water[2].
Waste	Has the same meaning as that term under the *Protection of the Environment Operations Act 1997*.

[2] Commonwealth of Australia (DITR), 2007. *Tailings Management*.

Attachment 3 – Rehabilitation Complaints

DATE	COMPLAINANT	COMPLAINT DETAILS	RESPONSE DETAILS	STATUS OF RESPONSE	DATE RESPONSE COMPLETED (IF APPLICABLE)

Attachment 4 – Stakeholder consultation

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN

Attachment 5 – Plans

Plan 1A 2025-08-01.pdf

Plan 1B 2025-08-01.pdf

Bringelly Clay Mine, Plan 1A, ARR 01/07/2024 - 30/06/2025

Legend

Rehabilitation
- Decommissioning
- Landform Establishment
- Growth Media Development
- Ecosystem and Land Use Establish
- Ecosystem and Land Use Developr
- Relinquishment (Rehabilitated)
- Rehabilitation Completion

Disturbance
- Beneficiation Facility
- Infrastructure Area
- Other
- Overburden Emplacement Area
- Tailings Storage Facility
- Underground Mining Area (SMP)
- Active Mining Area (Open cut void)
- Water Management Area

Project Approval Boundary
Mine Operations Area
World Imagery
Low Resolution 15m Imagery
High Resolution 60cm Imagery
High Resolution 30cm Imagery
Citations

1: 10,692

543.2 0 271.58 543.2 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere
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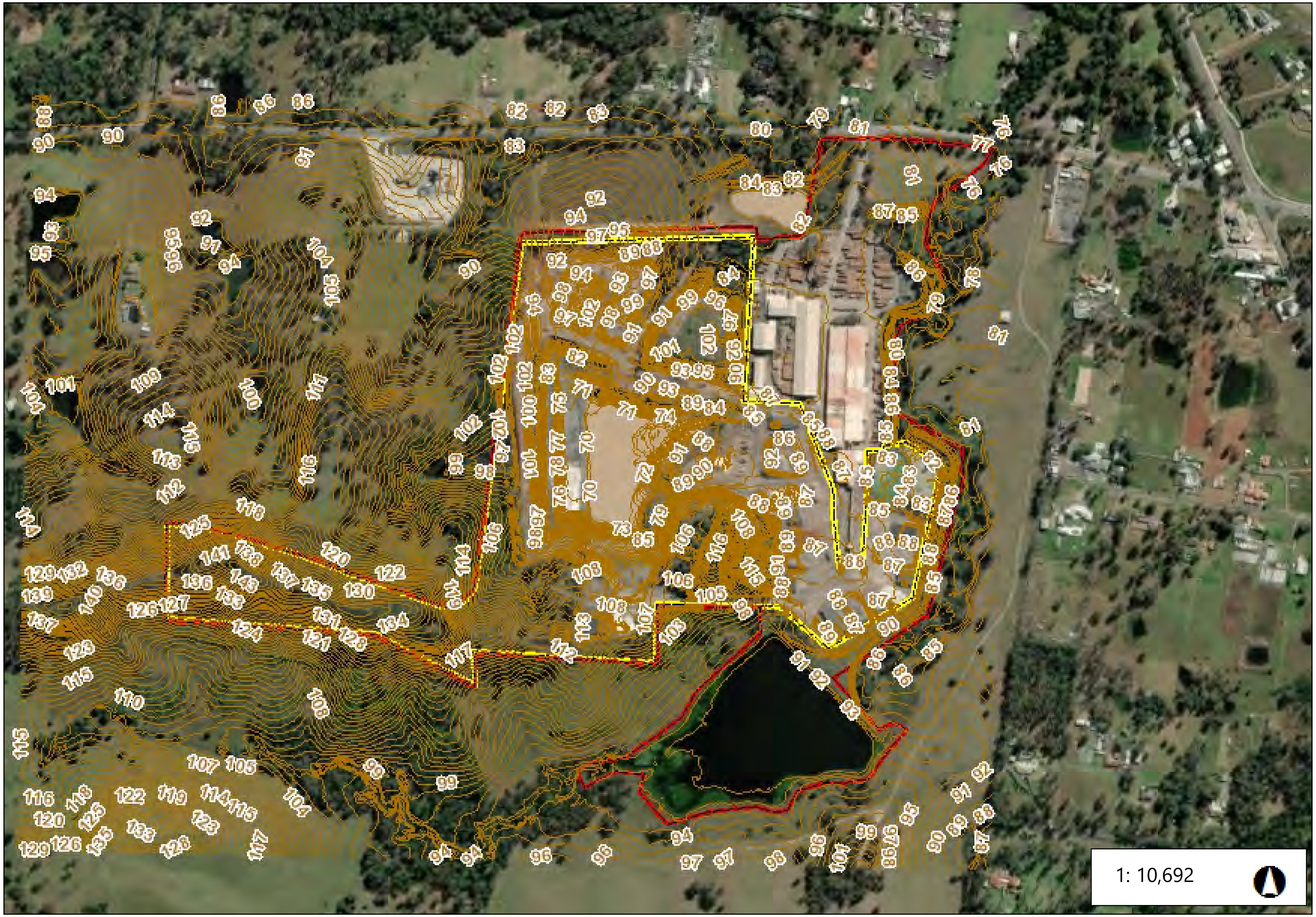
Notes

Plan Date 01/08/2025
Submission IDs:
2123, 10525, 10526

Bringelly Clay Mine, Plan 1B, ARR 01/07/2024 - 30/06/2025



Legend

- Current Landform Contours
- Project Approval Boundary
- Mine Operations Area
- World Imagery
- Low Resolution 15m Imagery
- High Resolution 60cm Imagery
- High Resolution 30cm Imagery
- Citations

543.2 0 271.58 543.2 Meters

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Notes

Plan Date 01/08/2025
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