



ARDGLEN QUARRY

2016 Annual Environmental Management Report (AEMR)



PROJECT APPROVAL - MP 06_0264

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1. INTRODUCTION

1.1 Scope

This report has been prepared by Daracon Quarries, in accordance with Schedule 5 Condition 4 of the Project Approval MP 06_0264 to record the activities and environmental monitoring undertaken within and surrounding Ardglan Quarry during the period 1st January 2016 to 31st December 2016.

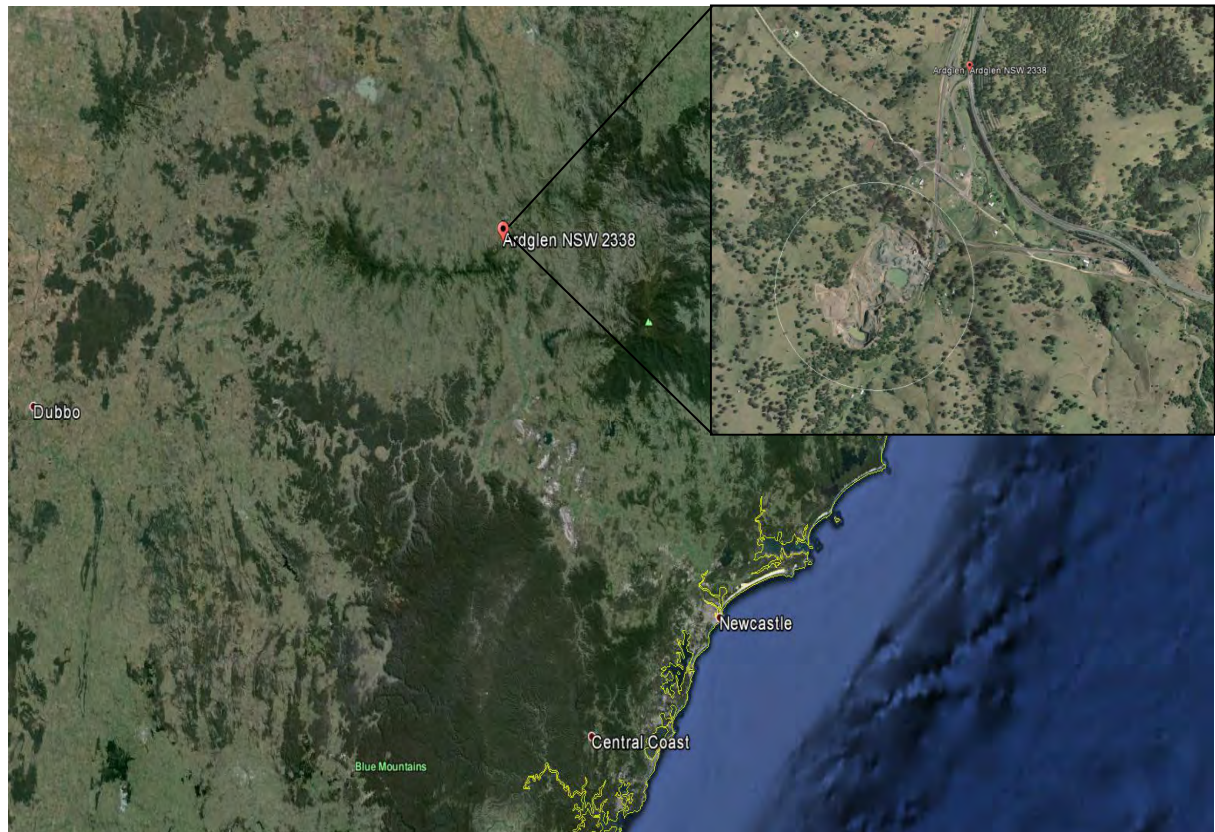


Figure 1: Quarry Location

On 2nd December 2008 Daracon was granted approval (Project Approval MP 06_0264) under part 3A of the Environmental Planning & Assessment Act 1979 to extend the existing quarry operations in a westerly direction into Lot 218 (DP 751028).

It should be noted that although MP 06_0264 was issued on 2nd December 2008, quarry activities continued to operate under the existing Development Consent issued by Murrurundi Shire Council DA1/1994/158 and "Existing Use Rights" that might have been applied to the Quarry.

Daracon ceased operations at Ardglan Quarry in February 2012 (when Project Approval MP 06_0264 came into effect) as we could not comply with a number of Consent Conditions and as such, did not commence operations within the extension area.

This document provides an overview of activities and environmental monitoring that occurred within the reporting period and also activities and environmental monitoring planned for 2017. This Annual Environmental Management Report (AEMR) contains the following:

- A description of activities that were carried out in 2016;
- A review of the environmental monitoring results that were carried out in 2016;
- Results of the Independent Environmental Audit that was carried out in 2016;
- A description of measures that will be implemented throughout 2017 to improve the environmental performance of the Quarry;

1.2 Standards and Performance Measures

The owner and operator of Ardglan Quarry, Daracon Quarries (Trading as Buttai Gravel Pty Ltd) is required to operate the approved activities within the Quarry site in accordance with MP 06_0624 and licences listed in **Table 1**

Table 1: Ardglan Quarry - Consents and Licences

Approval/Licence	Issue Date	Expiry Date
Project Approval MP 06_0624	2 December 2008	31 August 2038
Environment Protection Licence No.1115		1 January*

Relevant conditions with Project Approval MP 06_0624 which nominate specific environmental criteria are as follows:

- *Schedule 3 Condition 2: Noise*
- *Schedule 3 Condition 7: Blasting and Vibration*
- *Schedule 3 Condition 15: Air Quality*
- *Schedule 3 Condition 18: Meteorological Monitoring*
- *Schedule 3 Condition 19: Surface and Ground Water*

In addition to the specific environmental criteria, the following conditions within MP 06_0624 specifically request further information be included in each AEMR:

- *Schedule 3 Condition 33: Product Transport*
- *Schedule 3 Condition 46: Greenhouse Gas*
- *Schedule 3 Condition 47: Waste Minimisation*

1.3 Site Management And Responsibilities

The overall management of Ardglan Quarry is the responsibility of Daracon's Operations Manager, Mr Greg Dressler. While the Quarry is in a "Care & Maintenance" stage, environmental monitoring is conducted by Mr Daniel Smith (Systems Coordinator), Mr Luke Robinson (Systems Manager) and Mr Geoff Reeves (Quarry Supervisor). Other companies involved with quarry related documentation and monitoring data include:

- RCA Aust. Pty Ltd Laboratories

1.4 Document Preparation

The following information and data for this report has been drawn from documents commissioned or held by Daracon.

- Environmental Management Strategy Ardglan Quarry Extension - Major Project 06/0264, September 2010, Orogen Pty Ltd.
- Ardglan Quarry Environmental Monitoring Folders.

This document has been prepared by Mr Luke Robinson and Mr Daniel Smith of Daracon Quarries.

2. OPERATIONS DURING THE REPORTING PERIOD

2.1 Introduction

During 2016 the Quarry has been in a "Care & Maintenance" phase with no operations conducted at the site. **Table 2** lists the activities that did occur at Ardglan Quarry throughout 2016.

Table 2: Operations During the Reporting Period

January	Weekly Site Inspections
February	Weekly Site Inspections
March	Weekly Site Inspections
April	Weekly Site Inspections
May	Weekly Site Inspections
June	Weekly Site Inspections
July	Weekly Site Inspections
August	Weekly Site Inspections
September	Weekly Site Inspections
October	Weekly Site Inspections
November	Weekly Site Inspections
December	Weekly Site Inspections

2.2 Extraction And Clearing Operations

Table 3 records the monthly/annual sales of various products produced at Ardglan Quarry during 2016.

Table 3: Ardglen Quarry Sales (tonnes)

2015 Month	Aggregates	Road Pavements	Other	Total
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Total	0	0	0	0
Source: Ardglen				

Nil extraction operations took place during 2016.

2.3 Processing Operations

Nil processing operations took place during 2016.

2.4 Overburden and Silt Management

Nil overburden was removed during 2016.

Nil silt removal occurred during 2016.

2.5 Waste Management

Nil production took place during 2016 and as such there was nil production waste generated.

However, as part of the demolition of the redundant transformer yard, the following non-production wastes (and quantities) were produced at the Quarry during the reporting period:

- General Demolition Waste – 15.04T;
- Recyclable Concrete – 32.1T;
- Paper & Cardboard – Nil;
- Scrap Steel – Nil;
- Recyclables – Nil;
- Waste Oil – 2,500 litres;
- Waste Oil Filters – Nil;
- Empty Drums – Nil;
- Grease – Nil;
- Oily Water – Nil;
- Batteries – Nil;
- Asbestos Containing Material – 1.28T;

2.6 Site Infrastructure And Services

In 2015 approval was sought from Liverpool Plains Shire Council and Office of Water for the removal of the old Transformer Yard and compound following a request from the DP&E. Approval was granted and demolition took place in February 2016. The approval is attached in **Appendix 8**.

2.7 Water Management

Figure 2 displays the current water management system in place at Ardglen Quarry. During the reporting period there was some minor Erosion and Sediment control works carried out on the Quarry floor from the overflow from the main in pit sump to the drainage line along the rail siding.



Figure 2: Water Management

2.8 Bushfire Management

No bushfire prevention activities occurred during this reporting period.

2.9 Hazardous Materials Management

Hazardous materials within the Quarry site are appropriately managed with diesel fuel and bitumen pre-coat storage areas located in above ground tanks appropriately bunded. During this reporting period there was no diesel fuel stored onsite.

Aerosols and weed poison are stored within the designated hazardous materials cabinets within the stores area.

2.10 Product Transportation

The transportation of products, both imported and exported is identified in *Schedule 3 Condition 33*.

Condition 33 - The Proponent shall:

(a) keep records of the:

- amount of quarry materials imported onto the site each year;
- amount of product transported from the site each year;
- number of truck movements generated by the project, on a weekly basis;
- number of train movements generated by the project, on a weekly basis;
- date and time of each train movement generated by the project;

(b) provide annual production data to the DPI using the standard form for that purpose; and

(c) include these records in the AEMR.

During this reporting period the Quarry was not operational and there was no materials imported and exported by road or rail transport.

2.11 Rehabilitation

No rehabilitation occurred during the reporting period. It is anticipated that no rehabilitation will occur for a number of years post recommencement of operations. Overburden will be placed in the "southern void" when overburden removal is required, and once adequate quantities of material are placed there, it is anticipated that rehabilitation will then occur in that area.

3. COMMUNITY RELATIONS

3.1 Surrounding Communities

Figure 3 displays the land ownership and residence surrounding the quarry. During the reporting period, it is understood that there were no changes to the land ownership within the area. Informal discussions have occurred with a number of residents in the area.

Residents of Ardglen



Figure 3: Land Ownership and Residence

Table 4: Land Owners and Residence

Land Owners and Residence	
County Property Holdings Pty Limited	Mr R G & Mrs A R Maxwell
County Property Holdings Pty Ltd	Mr R K Best & Ms T M Hall
E & J Taylor	Mr R S Blomeley
Land and Property Management Authority	Mr R W Hancock
Mr A W Harris	Mr W E & Mrs E A Avery
Mr D J Bates	Mrs J Taylor
Mr D J Burraston	Ms A Bojba-Lis
Mr G B Smith & Ms N E Ryder	Ms C M Thompson
Mr G N & Mrs M A Lewins	Ms E G Russell
Mr J Orr	Ms M Taylor
Mr K J & Mrs J Martin	Ms P Purtell & Mr S Harms
Mr P A Bojba	The State of New South Wales
Mr P Colbert	Hunter Industrial Rental Equipment Pty Ltd

3.2 Community Consultative Committee Meetings

In mid 2015 Daracon sought approval for an Independent Community Consultative Committee Chairperson. Approval was granted for PEP Consulting to undertake the Independent Chairperson position. Following the appointment, PEP Consulting engaged the community to re-establish a Community Consultative Committee (CCC) and establish community representatives. This process was finally resolved in July 2016 with a CCC meeting held 23rd August 2016.

3.3 Environmental Complaints

As the Quarry was not operating, Daracon received no complaints during the reporting period.

3.4 Community Involvement

PEP Consulting and Daracon held a CCC meeting on the 23rd August 2016 with no issues identified. At this meeting, the next CCC meeting was tentatively set for April 2017 subject to the site operations progressing. At this stage, the April 2017 meeting has been cancelled as there has been no further progress on site with the next CCC meeting likely to occur in August 2017.

4. ENVIRONMENTAL MONITORING

4.1 Water Quality

4.1.1 Introduction

Ardglen Quarry operates under an approved Site Water Management Plan. The purpose of this plan is to ensure that Ardglen Quarry does not pollute any waters it may discharge into, in accordance with Environmental Protection Licence No. 1115. The water monitoring plan proposes that prior to any discharge from the sediment basin, the water be tested for turbidity using a probe and visually assessed for the presence of oil and grease. If turbidity is less than 20 NTU and a surface film is not present, water may be discharged.

Ardglen Quarry has two sediment basins onsite, the in-pit sump which is approximately 63ML and a final sediment basin which is approximately 3ML. Currently all water from the disturbed area is directed towards the in-pit sump and when this becomes full, water is then directed to the smaller (3ML) sediment basin for treatment and discharge. **Figure 2**

4.1.2 Conclusion

During the reporting period nil water was discharged from site.

4.2 Noise and Blasting

4.2.1 Introduction

Ardglen Quarry operates under an approved Noise Monitoring Program and Blast Monitoring program. These programs outline the measures which will mitigate the environmental effects of noise and blasting of the quarry activities on our neighbours; proposes noise monitoring programs to assess and report the levels of impact, in compliance with Schedule 3 of the Project Approval and provides a mechanism whereby any noise complaints can be dealt with quickly and effectively.

The Noise Monitoring Program calls for quarterly attended noise monitoring to take place at specified noise monitoring locations. The Blast Monitoring program requires monitoring to take place at specified locations, see **Figure 4**.



Figure 4: Blast Monitoring Locations

4.2.2 Noise Criteria

Table 5: Noise Criteria

TABLE 1 NOISE IMPACT ASSESSMENT CRITERIA dB(A)				
Land	Day Leq (15 min)	Evening Leq (15 min)	Night	
			Leq (15 min)	L1 (1 min)
1 Burraston	35	35	35	45
3 Rose	35	35	35	45
4 C M Thompson	44	35	35	45
5 M Taylor	45	35	35	45
6 S Thompson	45	35	35	45
9 Bates	37	35	35	45
10 Avery	38	35	35	45
11 Shipman	37	35	35	45
12 Hall	36	35	35	45
13 McGhie	35	35	35	45
14 Purtell	36	35	35	45
15 J Taylor	43	35	35	45
16 Bojba	40	35	35	45
All other privately owned land	35	35	35	45

4.2.3 Noise Monitoring Results

Ardglen quarry is currently non-operational and as such no activities are being taken place onsite. Regardless of this fact, noise monitoring of the site was undertaken in August 2016.



Figure 5: Noise Monitoring Locations

4.2.4 Blasting Criteria

Table 6: Blasting Criteria

Airblast overpressure level (dB(Lin Peak))		Allowable exceedance
115		5% of the total number of blasts over a period of 12 months
120		0%
Peak Particle Velocity (mm/s)		Allowable exceedance
5		5% of the total number of blasts over a period of 12 months
10		0%

4.2.5 Blasting Monitoring Results

Nil blasts were carried out in the reporting period.

4.2.6 Analysis of Results

The results of the noise monitoring undertaken in August 2016 are included in Appendix 2. These results were all below the specified criteria (as expected due to the fact that the quarry was not operational).

No quarry operations have taken place within the reporting period, so therefore no blast monitoring has been undertaken.

4.2.7 Conclusion

The noise monitoring results were within the specified limits and when operations recommence blast monitoring will then recommence.

4.3 Air Quality

4.3.1 Introduction

Ardglen Quarry operates under an approved Air Quality Management Plan. The objectives of this plan is to comply with all statutory requirements, minimise air quality impacts on surrounding residents and properties, maintain reasonable levels of amenity for surrounding residents, to keep the local community and regulators informed and to respond quickly and effectively to issues and complaints and to ensure that air quality is measured according to best practice and results are presented in a timely and transparent manner to stakeholders.

4.3.2 Meteorological Station

Condition 18 (32) requires that a meteorological station to operate in the vicinity of the project site for the life of the project. Daracon has installed a meteorological station (Figure 4), ensuring that the meteorological station complies with the requirements in the "Approved Methods for Sampling of Air Pollutants in New South Wales Guideline".

The meteorological station currently monitors the following parameters as per EPL 1115;

- Rainfall;
- Wind Speed and Direction;
- Temperature (at 2m and 10m above ground level);
- Sigma theta;
- Solar Radiation;

4.3.3 Air Quality Monitoring Locations and Frequency

The current air quality monitoring network consists of three deposited dust gauges (DDG), two HVAS units and one TSP unit (see **Figure 6**).

The location of the air quality monitoring equipment (primarily to the North-East and East of the Quarry) was deduced from the location of the surrounding residences.



Figure 6: Air Quality Monitoring and Weather Station Locations

4.3.4 Air Quality Criteria

The air quality criteria for the quarry, as outlined with condition 15 (10) of the approval are provided in the below table.

Table 7: Air Quality Criteria

Parameter	Frequency	Locations	Limit/Guideline	Sampling Method
Deposited dust	Monthly.	DG-1 located at Receptor 2 (EPL point 2). DG-2 located at Receptor 5 (EPL point 3). DG-3 located at Receptor 6 (EPL point 4).	Deposition Rate* Maximum total deposited dust level: 4 g/m ² .month - as an annual average	AM-19 AS3580.10.1 – 2003
Total suspended particulate (TSP) matter	24 hours every 6 days for 12 months.	TSP-1 located at Receptor 2. Removed after 12 months.	Concentration 90 µg/m ³ - as an annual average	AM-15 AS3580.9.3 – 2003
Particulate matter < 10 µm (PM ₁₀)	24 hours every 6 days.	PM10-1 located at Receptor 2. PM10-2 located at Receptor 6.	Concentration 50 µg/m ³ - as a 24 hour average 30 µg/m ³ - as an annual average	AM-16 AS3580.9.6 - 2003
Visible air pollution	Weekly. In response to any visible emissions complaint.	Weekly site inspection. At the location of any reported emission.	Project Approval Schedule 3, Condition 16 The Proponent shall ensure any visible air pollution generated by the project is assessed regularly, and that quarrying operations are relocated, modified, and/or stopped as required to minimise air quality impacts on privately-owned land, to the satisfaction of the Director-General.	No required sampling methodology. Actions required if visual impact is suspected or confirmed, are detailed in Section Error! Reference source not found..
Meteorological station	Continuous.	On site near the weighbridge.	Project Approval Schedule 3, Condition 18 The Proponent shall ensure the project has a suitable meteorological station in the vicinity of the site that complies with the requirements in <i>Approved Methods for Sampling of Air Pollutants in New South Wales</i> guideline.	AM-1 to AM-4 USEPA (2000) EPA 454/R-99-005
Greenhouse gases (electricity and fuel consumption)	Upon purchase of electricity or fuel.	Entire site.	Project Approval Schedule 3, Condition 46(a) The proponent shall monitor the greenhouse gas emissions generated by the project.	No required sampling methodology. Records of purchase and storage used to determine consumption.

4.3.5 Air Quality Monitoring Results

The following information presents the results of the deposited dust, HVAS and TSP monitoring program.

4.3.5.1 Depositional Dust Gauges

Table 8: Depositional Dust Gauge Results

	Insoluble Solids (g/m ² .month)			Insoluble Solids Annual Average (g/m ² .month)		
	EPA2	EPA3	EPA4	EPA2	EPA3	EPA4
Jan-16	0.7	ND – Funnel stolen	1	0.8	0.8	0.8
Feb-16	0.7	0.6	6.4	0.6	0.8	1.3
Mar-16	0.2	ND – Funnel stolen	0.4	0.5	0.5	1.1
Apr-16	0.5	ND – Funnel stolen	0.5	0.5	0.5	1.1
May-16	0.4	0.5	0.3	0.5	0.6	1.1
Jun-16	0.5	0.5	0.4	0.5	0.6	1.1
Jul-16	0.3	0.2	0.2	0.5	0.6	1.1
Aug-16	0.3	0.4	0.4	0.5	0.6	1.1
Sep-16	0.5	0.6	0.4	0.5	0.6	1.1
Oct-16	0.4	0.8	0.8	0.5	0.6	1.1
Nov-16	0.2	0.9	0.7	0.4	0.6	1
Dec-16	1.5	1.3	1	0.5	0.6	1

4.3.5.2 HVAS Unit 1

Table 9: HVAS Unit 1 Results

	Sample #	Run Date	PM10	Filter #	Date Off	Time Off	Tech	Hrs
Jan-16	PM ₁₀ -1	1169733012	6/01/2016	32	9167377	11/01/2016	11:37	Client 3.53
	PM ₁₀ -1	1169733015	12/01/2016	16	9167380	15/01/2016	11:11	Client 24.14
	PM ₁₀ -1	1169733018	18/01/2016	7	9167383	21/01/2016	12:32	Client 24
	PM ₁₀ -1	1169733021	24/01/2016	14	9167386	28/01/2016	11:04	Client 24.01
	PM ₁₀ -1	1169733024	30/01/2016	16	9167389	2/02/2016	12:41	Client 24.01
Feb-16	PM ₁₀ -1	2169733014	5/02/2016	11	9204881	8/02/2016	9:54	Client 24.02
	PM ₁₀ -1	2169733017	11/02/2016	10	9204884	15/02/2016	13:12	Client 24.01
	PM ₁₀ -1	2169733020	17/02/2016	25	9204887	18/02/2016	10:05	Client 24.02
	PM ₁₀ -1	2169733023	23/02/2016	10	9204890	26/02/2016	11:35	Client 24.01
	PM ₁₀ -1	2169733026	29/02/2016	7	9204893	3/03/2016	11:37	Client 35.71
Mar-16	PM ₁₀ -1	3169733012	6/03/2016	10	9204896	9/03/2016	12:29	Client 24
	PM ₁₀ -1	3169733015	12/03/2016	16	9204899	14/06/2016	9:31	Client 24.02

	PM ₁₀ -1	3169733018	18/03/2016	7	9204802	23/06/2016	12:59	Client	24.01
	PM ₁₀ -1	3169733021	24/03/2016	14	9204805	29/03/2016	11:51	Client	24.01
	PM ₁₀ -1	3169733024	30/03/2016	8	9204808	4/04/2016	12:37	Client	24.02
Apr-16	PM ₁₀ -1	4169733014	5/04/2016	17	9157523	8/04/2016	12:03	Client	24.02
	PM ₁₀ -1	4169733017	11/04/2016	11	9157526	15/04/2016	0:00	Client	24.01
	PM ₁₀ -1	4169733020	17/04/2016	9	9157529	22/04/2016	10:23	Client	17.68
	PM ₁₀ -1	4169733023	23/04/2016	8	9157532	23/04/2016	14:51	Client	20.68
	PM ₁₀ -1	4169733026	29/04/2016	7	9157535	2/05/2016	9:25	Client	24
May-16	PM ₁₀ -1	5169733012	5/05/2016	10	9157538	9/05/2016	10:40	Client	24.11
	PM ₁₀ -1	5169733015	11/05/2016	6	9157541	13/05/2016	12:20	Client	24.02
	PM ₁₀ -1	5169733018	17/05/2016	10	9157544	20/05/2016	7:51	Client	24.02
	PM ₁₀ -1	5169733021	23/05/2016	12	9157547	26/05/2016	11:51	Client	24
	PM ₁₀ -1	5169733024	29/05/2016	5	9252101	30/05/2016	10:48	Client	24.02
Jun-16	PM ₁₀ -1	6169733014	4/06/2016	3	9203800	6/06/2016	10:16	Client	24.02
	PM ₁₀ -1	6169733017	10/06/2016	4	9203703	15/06/2016	13:38	Client	24.01
	PM ₁₀ -1	6169733020	16/06/2016	6	9203706	20/06/2016	12:03	Client	24.01
	PM ₁₀ -1	6169733023	22/06/2016	3	9203709	27/06/2016	14:01	Client	24.03
	PM ₁₀ -1	6169733026	28/06/2016	3	9203712	1/07/2016	9:23:00	Client	24
Jul-16	PM ₁₀ -1	7169733012	4/07/2016	7	9203715	8/07/2016	12:12	Client	24.16
	PM ₁₀ -1	7169733015	10/07/2016	2	9203718	11/07/2016	7:34	Client	24.01
	PM ₁₀ -1	7169733018	16/07/2016	1	9203721	21/07/2016	12:03	Client	24
	PM ₁₀ -1	7169733021	22/07/2016	4	9203724	27/07/2016	11:35	Client	24.04
	PM ₁₀ -1	8169733014	28/07/2016	3	9203727	2/08/2016	14:10	Client	24.01
Aug-16	PM ₁₀ -1	8169733017	3/08/2016	6	9269684	8/08/2016	7:23	Client	24.01
	PM ₁₀ -1	8169733020	9/08/2016	2	9269687	12/08/2016	7:22	Client	24.02
	PM ₁₀ -1	8169733023	15/08/2016	5	9269690	16/08/2016	13:00	Client	24.01
	PM ₁₀ -1	8169733026	21/08/2016	1	9269693	23/08/2016	9:23	Client	24.01
	PM ₁₀ -1	8169733029	27/08/2016	2	9269696	1/09/2016	7:01	Client	24.01
Sep-16	PM ₁₀ -1	9169733018	2/09/2016	5	9269699	6/09/2016	13:24	Client	24.17
	PM ₁₀ -1	9169733021	8/09/2016	6	9208804	13/09/2016	13:15	Client	24.02
	PM ₁₀ -1	9169733024	14/09/2016	1	9208816	19/09/2016	9:41	Client	24.02
	PM ₁₀ -1	9169733027	20/09/2016	1	9208824	23/09/2016	9:51	Client	24.02
	PM ₁₀ -1	9169733030	26/09/2016	3	9208835	28/09/2016	10:40	Client	24.01
Oct-16	PM ₁₀ -1	10169733018	2/10/2016	2	9208850	4/10/2016	11:39	Client	24.01
	PM ₁₀ -1	10169733021	8/10/2016	8	9208862	10/10/2016	9:41	Client	24.02

Nov-16	PM ₁₀ -1	10169733024	14/10/2016	5	9314155	18/10/2016	9:43	Client	24
	PM ₁₀ -1	10169733027	20/10/2016	10	9314158	24/10/2016	7:34	Client	24.02
	PM ₁₀ -1	10169733030	26/10/2016	8	9314161	31/10/2016	7:30	Client	24.01
	PM ₁₀ -1	11169733018	1/11/2016	10	9314164	4/11/2016	9:06	Client	23.81
	PM ₁₀ -1	11169733021	7/11/2016	9	9314167	10/11/2016	11:46	Client	24.03
	PM ₁₀ -1	11169733024	13/11/2016	13	9326457	16/11/2016	8:07	Client	24
	PM ₁₀ -1	11169733027	19/11/2016	18	9326460	23/11/2016	7:39	Client	24.01
	PM ₁₀ -1	11169733030	25/11/2016	9	9326463	30/11/2016	8:07	Client	24.02
	PM ₁₀ -1	12169733018	1/12/2016	9	9326466	5/12/2016	7:52	Client	24.01
	PM ₁₀ -1	12169733021	7/12/2016	8	9326469	8/12/2016	12:13	Client	24.01
	PM ₁₀ -1	12169733024	13/12/2016	18	9326472	16/12/2016	10:44	Client	24.01
	PM ₁₀ -1	12169733027	19/12/2016	10	9326475	23/12/2016	10:00	Client	24.04
	PM ₁₀ -1	12169733030	25/12/2016	5	9326478	28/12/2016	9:25	Client	24.01
	PM ₁₀ -1	12169733033	31/12/2016	14	9326481	4/01/2017	8:58	Client	24.15

4.3.5.3 HVAS Unit 2
Table 10: HVAS Unit 2 Results

		Sample #	Run Date	PM10	Filter #	Date Off	Time Off	Tech	Hrs
Jan-16	PM ₁₀₋₂	1169733013	6/01/2016	4	9167376	11/01/2016	11:24	Client	24.01
	PM ₁₀₋₂	1169733016	12/01/2016	17	9167319	15/01/2016	11:21	Client	24.03
	PM ₁₀₋₂	1169733019	18/01/2016	8	7167384	21/01/2016	12:45	Client	24
	PM ₁₀₋₂	1169733022	24/01/2016	13	9167387	28/01/2016	10:49	Client	24.04
	PM ₁₀₋₂	1169733025	30/01/2016	15	9167390	2/02/2016	13:08	Client	24.02
Feb-16	PM ₁₀₋₂	2169733015	5/02/2016	-	-	8/02/2016	-	Client	-
	PM ₁₀₋₂	2169733018	11/02/2016	10	9204885	15/02/2016	12:43	Client	24.04
	PM ₁₀₋₂	2169733021	17/02/2016	24	9204886	18/02/2016	10:32	Client	23.99
	PM ₁₀₋₂	2169733024	23/02/2016	9	9204891	26/02/2016	11:41	Client	24.05
	PM ₁₀₋₂	2169733027	29/02/2016	7	9204894	3/03/2016	11:20	Client	35.57
Mar-16	PM ₁₀₋₂	3169733013	6/03/2016	11	9204895	9/03/2016	13:10	Client	24
	PM ₁₀₋₂	3169733016	12/03/2016	18	9204900	14/06/2016	9:47	Client	24.02
	PM ₁₀₋₂	3169733019	18/03/2016	9	9204803	23/06/2016	12:46	Client	23.8
	PM ₁₀₋₂	3169733022	24/03/2016	16	9204804	29/03/2016	12:05	Client	24.02
	PM ₁₀₋₂	3169733025	30/03/2016	11	9204809	4/04/2016	12:24	Client	24.03
Apr-16	PM ₁₀₋₂	4169733015	5/04/2016	16	9204810	8/04/2016	11:48	Client	24.04
	PM ₁₀₋₂	4169733018	11/04/2016	11	9157525	15/04/2016	9:40	Client	24.01
	PM ₁₀₋₂	4169733021	17/04/2016	9	9157530	22/04/2016	10:39	Client	17.74
	PM ₁₀₋₂	4169733024	23/04/2016	6	9157533	23/04/2016	15:06	Client	20.69
	PM ₁₀₋₂	4169733027	29/04/2016	9	9157536	2/05/2016	9:50	Client	24.02
May-16	PM ₁₀₋₂	5169733013	5/05/2016	9	9157539	9/05/2016	10:28	Client	24.26
	PM ₁₀₋₂	5169733016	11/05/2016	7	9157540	13/05/2016	12:05	Client	24.03
	PM ₁₀₋₂	5169733019	17/05/2016	13	9157543	20/05/2016	8:01	Client	24.03
	PM ₁₀₋₂	5169733022	23/05/2016	13	9157548	26/05/2016	12:11	Client	24.02
	PM ₁₀₋₂	5169733025	29/05/2016	4	9252102	30/05/2016	11:52	Client	24.01
Jun-16	PM ₁₀₋₂	6169733015	4/06/2016	5	9203701	6/06/2016	10:33	Client	24.03
	PM ₁₀₋₂	6169733018	10/06/2016	3	9203704	15/06/2016	13:53	Client	24.03
	PM ₁₀₋₂	6169733021	16/06/2016	6	9203707	20/06/2016	11:45	Client	24.02
	PM ₁₀₋₂	6169733024	22/06/2016	2	9203708	27/06/2016	13:41	Client	23.99
	PM ₁₀₋₂	6169733027	28/06/2016	5	9203711	1/07/2016	9:35	Client	24
Jul-16	PM ₁₀₋₂	7169733013	4/07/2016	9	9203716	8/07/2016	11:52	Client	24.24
	PM ₁₀₋₂	7169733016	10/07/2016	4	9203717	11/07/2016	8:08	Client	24.02
	PM ₁₀₋₂	7169733019	16/07/2016	5	9203722	21/07/2016	11:48	Client	24
	PM ₁₀₋₂	7169733022	22/07/2016	6	9203723	27/07/2016	11:21	Client	24.04

	PM ₁₀₋₂	8169733015	28/07/2016	4	9203726	2/08/2016	13:50	Client	24.02
Aug-16	PM ₁₀₋₂	8169733018	3/08/2016	4	9203729	8/08/2016	7:31	Client	24.02
	PM ₁₀₋₂	8169733021	9/08/2016	6	9269688	12/08/2016	7:37	Client	24.02
	PM ₁₀₋₂	8169733024	15/08/2016	6	9269691	16/08/2016	12:46	Client	24
	PM ₁₀₋₂	8169733027	21/08/2016	2	9269692	23/08/2016	9:36	Client	24.04
	PM ₁₀₋₂	8169733030	27/08/2016	2	9269697	1/09/2016	7:13	Client	24.02
	PM ₁₀₋₂	9169733019	2/09/2016	3	9269700	6/09/2016	13:08	Client	24.25
Sep-16	PM ₁₀₋₂	9169733022	8/09/2016	7	9269601	13/09/2016	13:01	Client	24.02
	PM ₁₀₋₂	9169733025	14/09/2016	1	9208808	19/09/2016	10:09	Client	24.03
	PM ₁₀₋₂	9169733028	20/09/2016	3	9208827	23/09/2016	10:05	Client	24.01
	PM ₁₀₋₂	9169733031	26/09/2016	4	9208848	28/09/2016	10:23	Client	24.04
	PM ₁₀₋₂	10169733019	2/10/2016	4	9208849	4/10/2016	11:53	Client	24.02
Oct-16	PM ₁₀₋₂	10169733022	8/10/2016	7	9208897	10/10/2016	10:00	Client	24.02
	PM ₁₀₋₂	10169733025	14/10/2016	5	9314156	18/10/2016	9:58	Client	24.03
	PM ₁₀₋₂	10169733028	20/10/2016	8	9314159	24/10/2016	7:50	Client	24.12
	PM ₁₀₋₂	10169733031	26/10/2016	7	9314162	31/10/2016	8:02	Client	24
	PM ₁₀₋₂	11169733019	1/11/2016	10	9314165	4/11/2016	9:23	Client	23.89
Nov-16	PM ₁₀₋₂	11169733022	7/11/2016	12	9314168	10/11/2016	12:08	Client	24.04
	PM ₁₀₋₂	11169733025	13/11/2016	13	9326458	16/11/2016	9:02	Client	24
	PM ₁₀₋₂	11169733028	19/11/2016	17	9326461	23/11/2016	7:52	Client	24.01
	PM ₁₀₋₂	11169733031	25/11/2016	12	9326464	30/11/2016	8:29	Client	24.04
	PM ₁₀₋₂	12169733019	1/12/2016	12	9326467	5/12/2016	8:02	Client	24
Dec-16	PM ₁₀₋₂	12169733022	7/12/2016	6	9326470	8/12/2016	12:26	Client	24.04
	PM ₁₀₋₂	12169733025	13/12/2016	18	9326473	16/12/2016	10:54	Client	24.01
	PM ₁₀₋₂	12169733028	19/12/2016	11	9326476	23/12/2016	8:44	Client	24.06
	PM ₁₀₋₂	12169733031	25/12/2016	4	9326477	28/12/2016	8:36	Client	24.02
	PM ₁₀₋₂	12169733034	31/12/2016	15	9326482	4/01/2017	8:20	Client	24.26

4.3.5.4 TSP Unit 1
Table 11: TSP Unit 1 Results

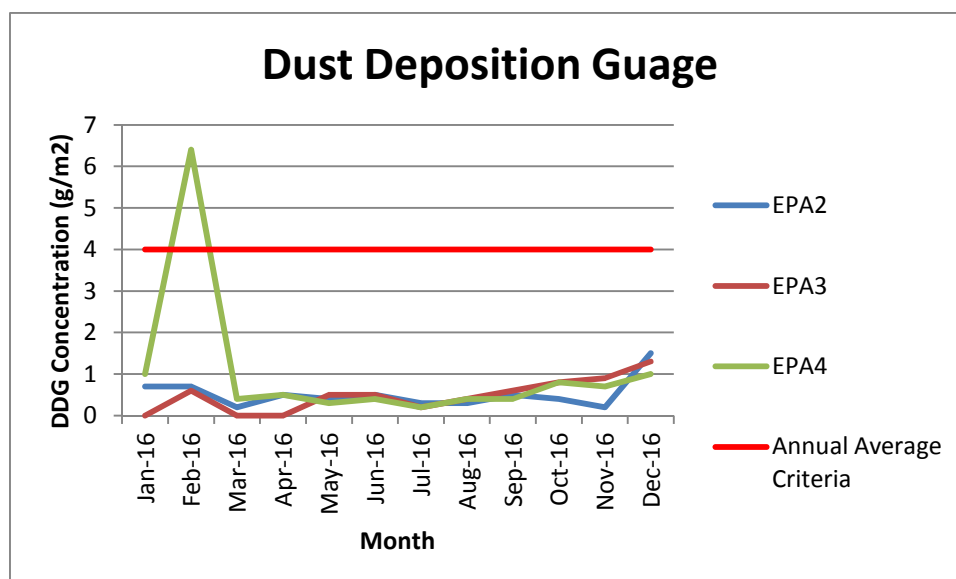
		Sample #	Run Date	PM10	Filter #	Date Off	Time Off	Tech	Hrs
Jan-16	TSP	1169733011	6/01/2016	8	9167378	11/01/2016	11:39	Client	24.26
	TSP	1169733014	12/01/2016	33	9167381	15/01/2016	11:08	Client	24.03
	TSP	1169733017	18/01/2016	14	9167382	21/01/2016	12:28	Client	24
	TSP	1169733020	24/01/2016	16	9167385	28/01/2016	11:00	Client	24.02
	TSP	1169733023	30/01/2016	31	9167388	2/02/2016	12:43	Client	24.02
Feb-16	TSP	2169733013	5/02/2016	14	9167391	8/02/2016	9:51	Client	24.83
	TSP	2169733016	11/02/2016	19	9204883	15/02/2016	13:13	Client	23.23
	TSP	2169733019	17/02/2016	41	9204888	18/02/2016	10:01	Client	24.02
	TSP	2169733022	23/02/2016	21	9204889	26/02/2016	11:28	Client	24.03
	TSP	2169733025	29/02/2016	13	9204892	3/03/2016	11:38	Client	35.65
Mar-16	TSP	3169733011	6/03/2016	18	9204897	9/03/2016	12:21	Client	24.01
	TSP	3169733014	12/03/2016	28	9204898	14/06/2016	9:26	Client	24.02
	TSP	3169733017	18/03/2016	17	9204801	23/06/2016	13:00	Client	24.01
	TSP	3169733020	24/03/2016	24	9204806	29/03/2016	11:48	Client	24.03
	TSP	3169733023	30/03/2016	13	9204807	4/04/2016	12:38	Client	24.03
Apr-16	TSP	4169733013	5/04/2016	25	9157524	8/04/2016	12:04	Client	24.01
	TSP	4169733016	11/04/2016	22	9157527	15/04/2016	8:54	Client	24.02
	TSP	4169733019	17/04/2016	12	9157528	22/04/2016	9:55	Client	24.02
	TSP	4169733022	23/04/2016	12	9157531	23/04/2016	14:41	Client	20.64
	TSP	4169733025	29/04/2016	19	9157534	2/05/2016	9:19	Client	23.97
May-16	TSP	5169733011	5/05/2016	14	9157537	9/05/2016	10:38	Client	24.22
	TSP	5169733014	11/05/2016	8	9157542	13/05/2016	12:18	Client	24.02
	TSP	5169733017	17/05/2016	19	9157545	20/05/2016	7:40	Client	24.02
	TSP	5169733020	23/05/2016	21	9157546	26/05/2016	11:51	Client	24.03
	TSP	5169733023	29/05/2016	2	9157549	30/05/2016	10:42	Client	24.02
Jun-16	TSP	6169733013	4/06/2016	5	9252103	6/06/2016	10:10	Client	24.02
	TSP	6169733016	10/06/2016	6	9203702	15/06/2016	13:29	Client	24.01
	TSP	6169733019	16/06/2016	8	9203705	20/06/2016	12:02	Client	24.04
	TSP	6169733022	22/06/2016	3	9203710	27/06/2016	14:02	Client	24.03
	TSP	6169733025	28/06/2016	3	9203713	1/07/2016	9:14	Client	23.98
Jul-16	TSP	7169733011	4/07/2016	11	9203714	8/07/2016	12:09	Client	24.18
	TSP	7169733014	10/07/2016	4	9203719	11/07/2016	7:23	Client	24.03
	TSP	7169733017	16/07/2016	9	9203720	21/07/2016	12:03	Client	24.01
	TSP	7169733020	22/07/2016	9	9203725	27/07/2016	11:35	Client	24.04
	TSP	8169733013	28/07/2016	4	9203728	2/08/2016	14:09	Client	24.02
Aug-16	TSP	8169733016	3/08/2016	10	9269685	8/08/2016	7:13	Client	24.03
	TSP	8169733019	9/08/2016	7	9269686	12/08/2016	7:15	Client	24.02
	TSP	8169733022	15/08/2016	10	9269689	16/08/2016	12:59	Client	24.01
	TSP	8169733025	21/08/2016	2	9269694	23/08/2016	9:13	Client	24.02
	TSP	8169733028	27/08/2016	7	9269695	1/09/2016	6:52	Client	24.02

Sep-16	TSP	9169733017	2/09/2016	7	9269698	6/09/2016	13:23	Client	24.16
	TSP	9169733020	8/09/2016	8	9208805	13/09/2016	13:13	Client	24.02
	TSP	9169733023	14/09/2016	3	9208818	19/09/2016	9:39	Client	24.02
	TSP	9169733026	20/09/2016	7	9208819	23/09/2016	9:43	Client	24.03
	TSP	9169733029	26/09/2016	8	9208832	28/09/2016	10:39	Client	24.01
Oct-16	TSP	10169733017	2/10/2016	6	9208852	4/10/2016	11:15	Client	24.01
	TSP	10169733020	8/10/2016	13	9208859	10/10/2016	9:40	Client	24.03
	TSP	10169733023	14/10/2016	5	9251301	18/10/2016	9:30	Client	24.01
	TSP	10169733026	20/10/2016	14	9314157	24/10/2016	7:20	Client	24.03
	TSP	10169733029	26/10/2016	17	9314160	31/10/2016	7:22	Client	24.05
Nov-16	TSP	11169733017	1/11/2016	17	9314163	4/11/2016	8:48	Client	24.27
	TSP	11169733020	7/11/2016	27	9314166	10/11/2016	11:18	Client	24.02
	TSP	11169733023	13/11/2016	31	9314169	16/11/2016	7:58	Client	24.01
	TSP	11169733026	19/11/2016	42	9326459	23/11/2016	7:27	Client	24.02
	TSP	11169733029	25/11/2016	25	9326462	30/11/2016	7:54	Client	24.02
Dec-16	TSP	12169733017	1/12/2016	28	9326465	5/12/2016	7:35	Client	24.02
	TSP	12169733020	7/12/2016	17	9326468	8/12/2016	12:05	Client	24.01
	TSP	12169733023	13/12/2016	33	9326471	16/12/2016	10:33	Client	24.03
	TSP	12169733026	19/12/2016	17	9326474	23/12/2016	9:59	Client	24.03
	TSP	12169733029	25/12/2016	10	9326479	28/12/2016	9:16	Client	24.02
	TSP	12169733032	31/12/2016	19	9326480	4/01/2017	8:42	Client	24.24

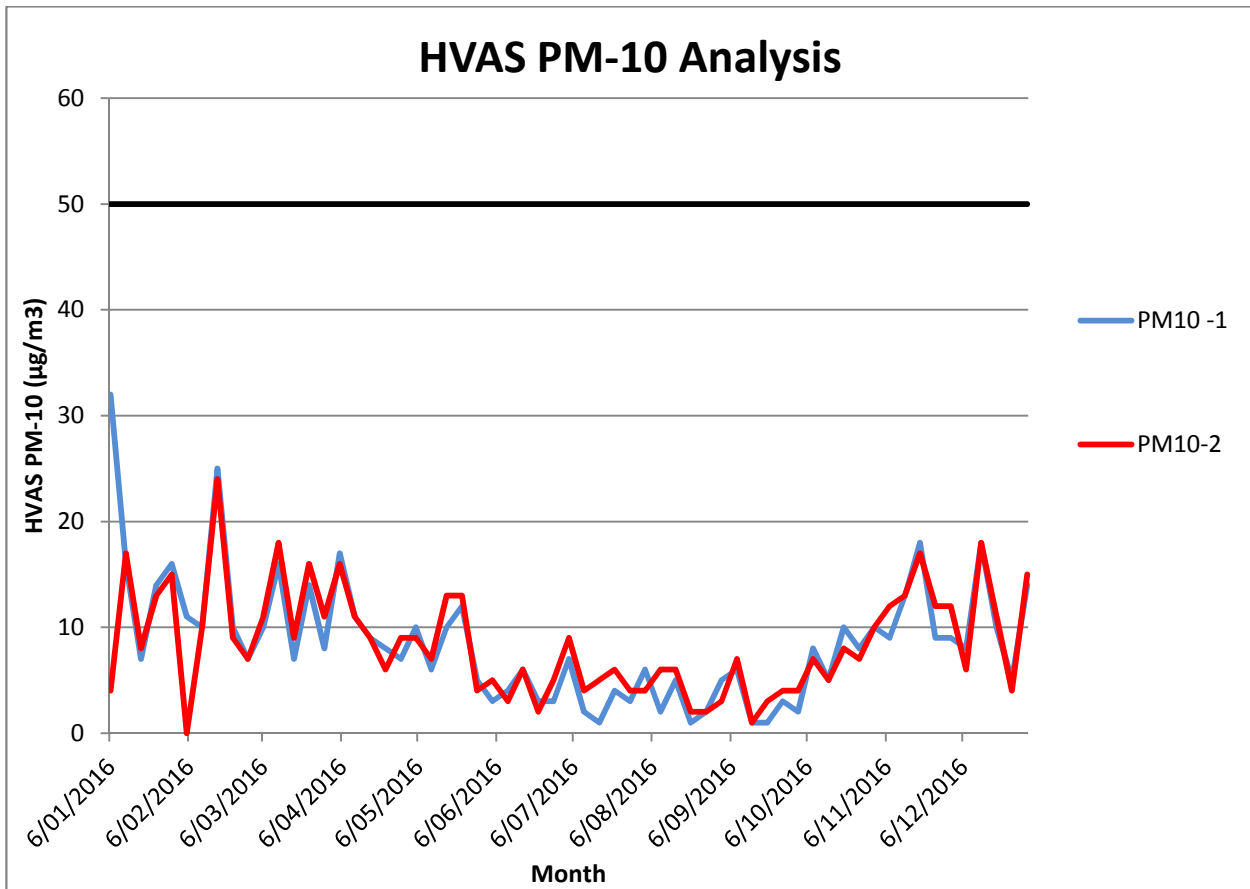
4.3.6 Analysis of Results

Deposited, HVAS and TSP dust levels monitored during the reporting period indicated the quarry is compliant with the relevant air quality criteria. Please refer to sections 4.3.6.1 to 4.3.6.3 for a further breakdown of monitoring data.

4.3.6.1 Depositional Dust Gauges



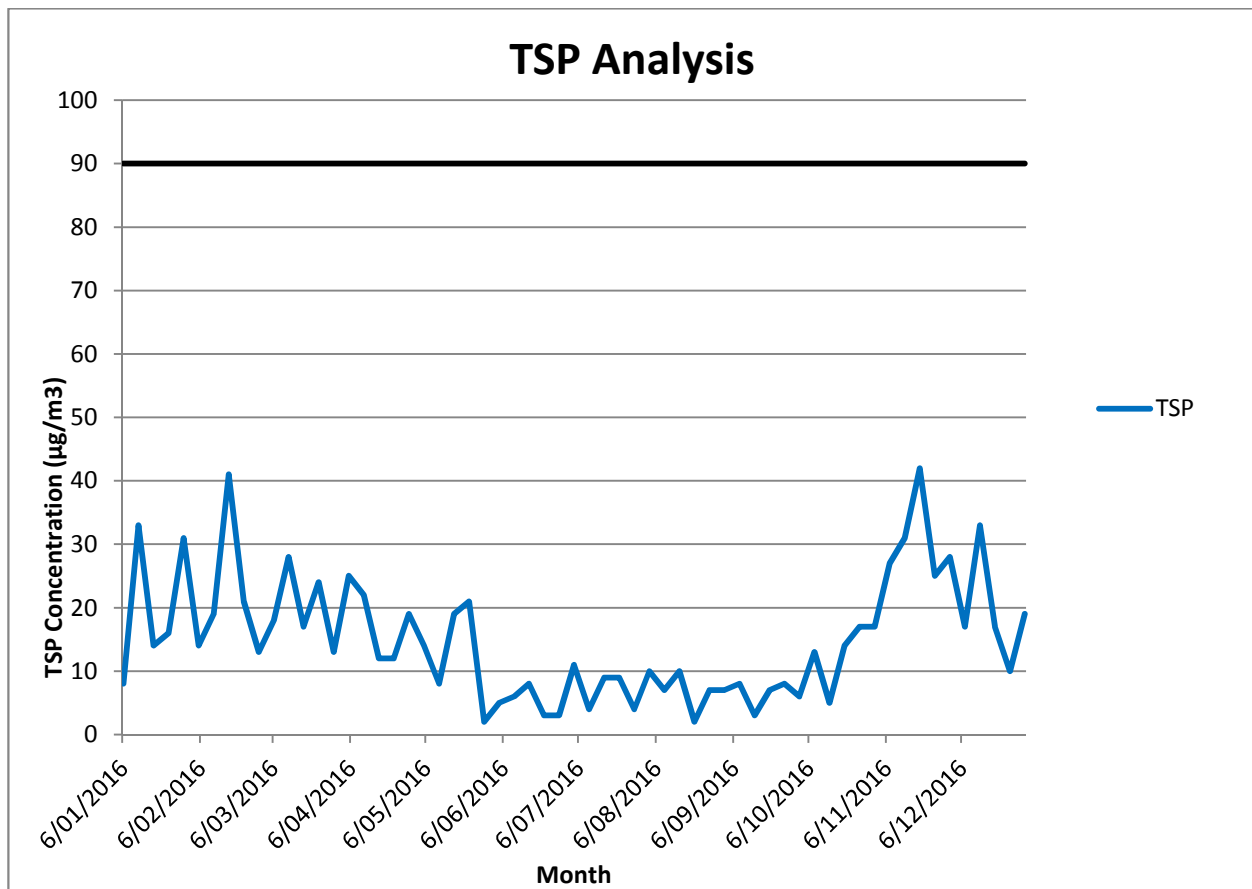
4.3.6.2 HVAS Unit 1 and 2



*The HVAS PM10 Annual average of $30\mu\text{g}/\text{m}^3$ is based on the short term impact assessment criterion for particulate matter. The 24hr average is the long term impact assessment criteria for deposited dust. Clause 15 (10) of approval.

Unit	Ardglen HVAS Annual Average	Annual Average Criterion (Short Term)	Annual Average Criterion (Long Term)
PM10-1	8.56	30	50
PM10-2	8.48	30	50

4.3.6.3 TSP Unit 1



4.3.7 Discussion

No follow-up actions were required as all deposited and monitored dust levels remained well below the nominated annual average criteria.

4.3.8 Conclusion

The quarry was compliant with the air quality criteria throughout the reporting period.

4.4 Fauna Habitat

4.4.1 Introduction

Nesting boxes were installed in April 2012 on Lot 187 DP 751028 as identified in the sites Landscape Management Plan. It is a requirement of the plan that annual springtime inspections of the nesting boxes are conducted for the life of the quarry.

4.4.2 Nest Box Usage

The report attached in **Appendix 7**.

5. COMPLIANCE ASSESSMENT

5.1 Environmental Protection Licence

Daracon hold Environmental protection Licence 1115 for a 'land based' extractive industry. The licence has an anniversary date of 1 January. The annual return covering the reporting period identified three minor non-compliances with the conditions of the licence. These non-compliances were associated with the damage / removal of the DDG funnel. No further non-compliances have occurred since April 2016.

5.2 Discrepancies With Predicted And Actual Quarry Operations

Nil to report.

6. ACTIVITIES PROPOSED DURING THE NEXT REPORTING PERIOD

6.1 Introduction

The following section provides a brief summary of operational & non operational activities planned throughout the 2016 reporting period. **Table13** provides a summary of the proposed quarry activities.

Table 12: Proposed Activities for 2017

January - December 2017	<ul style="list-style-type: none">• Ongoing review of Management Plans• Noise monitoring• Regular Site Inspections• Ongoing Air Quality Monitoring• Addressing corrective actions identified in independent environmental audits as required• Mine Planning
-------------------------	--

6.2 Extraction Operations

No extraction will take place during the reporting period. The quarry is likely to remain in care and maintenance

6.3 Processing

No process will take place during the reporting period. The quarry is likely to remain in care and maintenance

6.4 Overburden And Silt Management

No overburden clearing will be under. Current controls for overburden and silt management to remain in place and monitored.

6.5 Waste Management

The quarry will remain in care and maintenance and it is expected that no waste will be produced at the quarry

6.6 Site Infrastructure And Services

No changes are expected to the site infrastructure and services during the reporting period. The quarry is likely to remain in care and maintenance

6.7 Water Management

It is expected that no changed will be made and the current water management practices will remain in place and continued to be monitored.

6.8 Bushfire Management

Bush fire management practices will remain in place and monitored.

6.9 Hazardous Materials Management

There will be no importation or disposing of hazardous materials on site.

6.10 Product Transportation

The quarry is likely to remain in care and maintenance and consequently there will be no product transported off or on site.

6.11 Rehabilitation

As the quarry is in care and maintenance it is expected that no rehabilitation will take place. Continual monitoring of Off-Set area will be conducted on a regular basis.

7. REFERENCES

1. ANZECC (2000) – Australian and New Zealand Guidelines Fresh and Marine Water Quality
2. DEC (2007) Approved Methods for Sampling of Air Pollutants in New South Wales
3. DECCW (2007) Methods for the Sampling and Analysis of Air Pollutants in New South Wales
4. EPA (2000) New South Wales Industrial Noise Policy

8. APPENDICES

Appendix 1 Project Approval MP 06_0264

Project Approval

Section 75J of the *Environmental Planning and Assessment Act 1979*

I approve the 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 project.



The Hon Kristina Keneally MP
Minister for Planning

Sydney

~~2 NOVEMBER~~

2008

- 2 DEC 2008

SCHEDULE 1

Application Number:	06_0264
Proponent:	Buttai Gravel Pty Limited (Daracon Quarries)
Approval Authority:	Minister for Planning
Land:	Lot 1 DP 1001734 Lot 218 DP 751028
Project:	Ardglen Quarry Extension

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DEFINITIONS

AEMR	Annual Environmental Management Report
BCA	Building Code of Australia
CCC	Community Consultative Committee
Council	Liverpool Plains Shire Council
Day	The period from 7.00am to 6.00pm on Monday to Saturday, and 8.00am to 6.00pm on Sundays and Public Holidays
DECC	Department of Environment and Climate Change
Department	Department of Planning
Director-General	Director-General of Department of Planning, or delegate
DPI	Department of Primary Industries
DWE	Department of Water and Energy
EA	Environmental assessment titled <i>Ardglen Quarry Extension Environmental Assessment</i> , dated June 2007, including the response to submissions, dated November 2007
EEC	Endangered Ecological Community as defined under the NSW <i>Threatened Species Conservation Act 1995</i>
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence
Evening	The period from 6.00pm to 10.00pm
Land	Land means the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
Minister	Minister for Planning, or delegate
Night	The period from 10.00pm to 7.00am on Monday to Saturday, and 10.00pm to 8.00am on Sundays and Public Holidays
Privately-owned Land	Land that is not owned by a public agency, or a quarrying company (or its subsidiary)
Project	The development as described in the EA
Proponent	Buttai Gravel Pty Limited (Daracon Quarries), or its successors
Reasonable and Feasible	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. Feasible relates to engineering considerations and what is practical to build
RTA	Roads and Traffic Authority
Site	The land referred to in Schedule 1 and shown in Appendix 1 as the project application area
Statement of Commitments	The Proponent's commitments in Appendix 3

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

1. The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.

Terms of Approval

2. The Proponent shall carry out the project generally in accordance with the:
 - (a) EA;
 - (b) statement of commitments; and
 - (c) conditions of this approval.

Note: The general layout of the project is shown in Appendix 1.

3. If there is any inconsistency between the above documents, the conditions of this consent shall prevail to the extent of any inconsistency.
4. The Proponent shall comply with any reasonable and feasible requirement/s of the Director-General arising from the Department's assessment of:
 - (a) any reports, plans, programs, strategies or correspondence that are submitted in accordance with this approval; and
 - (b) the implementation of any actions or measures contained in these reports, plans, programs, strategies or correspondence.

Limits on Approval

5. This approval expires on 31 August 2038.

Note: Under this approval, the Proponent is required to rehabilitate the site and implement biodiversity offsets to the satisfaction of the Director-General. Consequently, this approval will continue to apply in all other respects other than the right to conduct extractive operations until the site has been rehabilitated and the biodiversity offset provided to a satisfactory standard.

6. The Proponent shall not extract or process more than 500,000 tonnes of material on the site each year.
7. The Proponent shall not transport more than:
 - (a) 250,000 tonnes of product from the site by rail a year; or
 - (b) 250,000 tonnes of product from the site by road a year.
8. The Proponent shall not import more than 80,000 tonnes of materials for the purposes of blending and product quality improvement each year.

Surrender of Consents

9. Within 3 years of this approval, the Proponent shall surrender all development consents or continuing use rights for the Ardglen Quarry, to the satisfaction of the Director-General.

Management Plans/Monitoring Programs

10. With the approval of the Director-General, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.

Structural Adequacy

11. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

Notes:

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

Demolition

12. The Proponent shall ensure that all demolition work is carried out in accordance with *Australian Standard AS 2601-2001: The Demolition of Structures*, or its latest version.

Operation of Plant and Equipment

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

Protection of Public Infrastructure

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

SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

HOURS OF OPERATION

- The Proponent shall comply with the hours of operation in Table 1.

Table 1: Hours of Operation

Activity	Day	Time
Topsoil/overburden removal/emplacement	Monday-Saturday	7.00am to 5.00pm
	Sunday	None
Blasting	Monday-Friday	10:00pm to 3.00pm
	Saturdays, Sundays and Public Holidays	None
In-pit activities (including drilling, extraction, and transfer of material out of the pit)	Monday-Saturday	7.00am to 5:30pm
	Sundays and Public Holidays	None
Out-of-pit activities (including processing, and stockpiling)	Monday-Saturday	7.00am to 5:30pm
	Sundays and Public Holidays	None
Maintenance (if inaudible at nearby residences)	Monday-Sunday	Any time
Truck loading and distribution	Monday-Saturday	6.30am to 5.30pm
	Sundays and Public Holidays	None
Rail loading	Monday-Sunday	7:00am to 10:00pm

Note:

- The Proponent may load no more than 2 trains each year outside the hours listed in Table 1 (see condition 41).
- The Proponent may carry out blasting operations outside the hours listed in Table 1 for safety reasons provided the Proponent has notified DECC and the local community about the proposed blast.

NOISE

Noise Impact Assessment Criteria

- The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 2 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

Table 2: Noise impact assessment criteria dB(A)

Land	Day	Evening	Night	
	$L_{Aeq}(15 \text{ min})$	$L_{Aeq}(15 \text{ min})$	$L_{Aeq}(15 \text{ min})$	$L_{A1}(1 \text{ min})$
1 – Burraston	35	35	35	45
3 – Rose	35	35	35	45
4 – CM Thompson	44	35	35	45
5 – M Taylor	45	35	35	45
6 – S Thompson	45	35	35	45
9 – Bates	37	35	35	45
10 – Avery	38	35	35	45
11 – Shipman	37	35	35	45
12 – Hall	36	35	35	45
13 – McGhie	35	35	35	45
14 – Purtell	36	35	35	45
15 – J Taylor	43	35	35	45

Land	Day	Evening	Night	
	L_{Aeq(15 min)}	L_{Aeq(15 min)}	L_{Aeq(15 min)}	L_{A1(1 min)}
16 - Bojba	40	35	35	45
All other privately-owned land	35	35	35	45

However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 2, and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 2 in accordance with the negotiated noise agreement. The Proponent may also exceed the L_{A1(1 min)} and L_{Aeq(15 min)} noise impact assessment criteria during out of hours rail loading activities provided they are conducted in accordance with condition 41 below.

Notes:

- For information on the numbering and identification of properties used in this approval see Appendix 5.
- To determine compliance with the L_{Aeq(15 minute)} noise limits, noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the project is impractical, the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- To determine compliance with the L_{A1(1 minute)} noise limits, noise from the project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the project is impractical, the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).
- The noise emission limits identified in the above table apply under meteorological conditions of:
 - wind speeds of up to 3 m/s at 10 metres above ground level; or
 - temperature inversion conditions of up to 3°C/100m, and source to receiver gradient wind speeds of up to 2 m/s at 10 metres above ground level.

Land Acquisition Criteria

3. If the noise generated by the project exceeds the criteria in Table 3 at any residence on privately-owned land or on more than 25 percent of any privately-owned land, the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 7-9 of Schedule 4.

Table 3: Land acquisition criteria dB(A)

Land	Day	Evening	Night
	L_{Aeq(15 min)}	L_{Aeq(15 min)}	L_{Aeq(15 min)}
1 – Burraston	40	40	40
3 – Rose	46	40	40
4 – CM Thompson	46	40	40
5 – M Taylor	46	40	40
6 – S Thompson	46	40	40
9 – Bates	46	40	40
10 – Avery	46	40	40
11 – Shipman	46	40	40
12 – Hall	46	40	40
13 – McGhie	40	40	40
14 – Purtell	46	40	40
15 – J Taylor	46	40	40
16 - Bojba	46	40	40
All other privately-owned land	40	40	40

However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 3, and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 3 in accordance with the negotiated noise agreement. The Proponent may also exceed the land acquisition criteria during out of hours rail loading activities provided they are conducted in accordance with condition 41 below.

Note: Noise generated by the project is to be measured in accordance with the notes to Table 2.

Additional Noise Mitigation

4. Upon receiving a written request from the owner of any privately-owned residence where subsequent noise monitoring shows the noise generated by the project is greater than the relevant criteria in Table 4, the Proponent shall implement additional noise mitigation measures such as double glazing, insulation, and/or air conditioning at any residence on the land in consultation with the landowner.

Table 4: Additional Noise Mitigation Criteria dB(A)

Land	Day	Evening	Night
	$L_{Aeq}(15\text{ min})$	$L_{Aeq}(15\text{ min})$	$L_{Aeq}(15\text{ min})$
1 – Burraston	38	38	38
3 – Rose	44	38	38
4 – CM Thompson	44	38	38
5 – M Taylor	44	38	38
6 – S Thompson	44	38	38
9 – Bates	44	38	38
10 – Avery	44	38	38
11 – Shipman	44	38	38
12 – Hall	44	38	38
13 – McGhie	38	38	38
14 – Purtell	44	38	38
15 – J Taylor	44	38	38
16 – Bojba	44	38	38
All other privately-owned land	38	38	38

Note: Noise generated by the project is to be measured in accordance with the notes to Table 2.

These additional mitigation measures must be reasonable and feasible.

If within 3 months of receiving this request from the landowner, the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution.

Within 3 months of this approval, the Proponent shall notify all applicable landowners of their rights under this condition, to the satisfaction of the Director-General.

Continuous Improvement

5. The Proponent shall:
 - (a) implement all reasonable and feasible noise mitigation measures;
 - (b) investigate ways to reduce the noise generated by the project, including off-site road and rail noise and maximum noise levels which may result in sleep disturbance; and
 - (c) report on these investigations and the implementation and effectiveness of these measures in the AEMR,
 to the satisfaction of the Director-General.

Monitoring

6. Prior to carrying out any extraction under this approval, the Proponent shall prepare and implement a Noise Monitoring Program for the project, in consultation with DECC, and to the satisfaction of the Director-General. The program must include:
 - (a) a combination of attended and unattended noise monitoring measures; and
 - (b) a noise monitoring protocol for evaluating compliance with the noise impact assessment and land acquisition criteria in this approval.

BLASTING AND VIBRATION

Airblast Overpressure Criteria

7. The Proponent shall ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in Table 5 at any privately-owned residence.

Table 5: Airblast overpressure impact assessment criteria

Airblast overpressure level (dB(Lin Peak))	Allowable exceedance
115	5% of the total number of blasts over a period of 12 months
120	0%

Ground Vibration Impact Assessment Criteria

8. The Proponent shall ensure that the ground vibration level from blasting at the project does not exceed the criteria in Table 6 at any privately-owned residence.

Table 6: Ground vibration impact assessment criteria

Peak particle velocity (mm/s)	Allowable exceedance
5	5% of the total number of blasts over a period of 12 months
10	0%

Blasting Frequency

9. The Proponent shall not carry out more than 30 blasts a year, or more than 1 blast per day, without the written approval of the Director-General.

Operating Conditions

10. The Proponent shall implement best blasting practice to:
- protect the safety of people, property, public infrastructure and livestock; and
 - minimise the dust and fume emissions from blasting at the project, to the satisfaction of the Director-General.
11. The Proponent shall not undertake blasting within 500 metres of any privately-owned land or any land not owned by the Proponent, unless suitable arrangements have been made with the landowner and any tenants to minimise the risk of flyrock-related impact to the property to the satisfaction of the Director-General.

Public Notice

12. The Proponent shall:
- notify the landowner/occupier of any residence within 1 kilometre of the quarry pit who registers an interest in being notified about the blasting schedule at the quarry;
 - operate a Blasting Hotline, or alternate system agreed to by the Director-General, to enable the public to get up-to-date information on the blasting schedule at the quarry;
 - keep local residents informed about this hotline (or any alternative notification protocols), to the satisfaction of the Director-General.

Property Investigations

13. If any landowner of privately-owned land within 1 kilometre of the site claims that buildings and/or structures on his/her land have been damaged as a result of blasting at the site, following commencement of operations within the extension area, then he/she may ask the Director-General in writing to investigate the claim.

If the Director-General is satisfied that an independent property investigation is warranted, the Proponent shall within 3 months of the Director-General's determination:

- commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to investigate the claim; and
- give the landowner a copy of the property investigation report.

If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Director-General.

If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 6).

Blast Monitoring Program

14. Prior to carrying out any extraction under this approval, the Proponent shall prepare and implement a Blast Monitoring Program for the project, in consultation with the DECC, and to the satisfaction of the Director-General. This program must include a protocol for demonstrating compliance with the blasting criteria in this approval.

AIR QUALITY

Impact Assessment Criteria

15. The Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the air quality impact assessment criteria listed in Tables 8, 9 and 10 at any residence, on privately-owned land, or on more than 25 percent of any privately-owned land.

Table 8: Long term impact assessment criteria for particulate matter

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

Table 9: Short term impact assessment criterion for particulate matter

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

Table 10: Long term impact assessment criteria for deposited dust

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

Note: Deposited dust is 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.

Operating Conditions

16. The Proponent shall ensure any visible air pollution generated by the project is assessed regularly, and that quarrying operations are relocated, modified, and/or stopped as required to minimise air quality impacts on privately-owned land, to the satisfaction of the Director-General.

Monitoring

17. Within 6 months of this approval, the Proponent shall prepare and implement an Air Quality Monitoring Program for the project, in consultation with DECC, and to the satisfaction of the Director-General. This program must:
 - (a) use a combination of high volume air samplers and dust deposition gauges to monitor the dust emissions from the project; and
 - (b) include a protocol for demonstrating compliance with the air quality impact assessment criteria in this approval.

METEOROLOGICAL MONITORING

18. The Proponent shall ensure the project has a suitable meteorological station in the vicinity of the site that complies with the requirements in *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline, to the satisfaction of the DECC and the Director-General.

SURFACE AND GROUND WATER

Surface Water Discharges

19. The Proponent shall only discharge water from the site in accordance with the provisions of an EPL.

Site Water Management Plan

20. Prior to carrying out any extraction under this approval, the Proponent shall prepare and implement a Site Water Management Plan for the project, in consultation with DECC and DWE, and to the satisfaction of the Director-General. This plan must be prepared by suitably qualified expert/s whose appointment/s have been approved by the Director-General, and must include:
- (a) a Site Water Balance;
 - (b) an Erosion and Sediment Control Plan; and
 - (c) a Water Monitoring Program.

Note: The Site Water Management Plan must incorporate the existing quarry operations and operations within the extension area.

Site Water Balance

21. The Site Water Balance must include details of:
- (a) sources and reliability of water supply;
 - (b) water management;
 - (c) water use; and
 - (d) any off-site discharges.

Erosion and Sediment Control

22. The Erosion and Sediment Control Plan must:
- (a) be consistent with the requirements of the *Managing Urban Stormwater: Soils and Construction Manual* (Landcom 2004, or its latest version);
 - (b) identify activities that could cause soil erosion and generate sediment;
 - (c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;
 - (d) describe the location, function, and capacity of erosion and sediment control structures; and
 - (e) describe what measures would be implemented to maintain the structures over time.

Water Monitoring

23. The Water Monitoring Plan must include:
- (a) water quality assessment criteria;
 - (b) a program to monitor water flows and quality in creeks and other waterbodies that could potentially be affected by the project;
 - (c) a protocol for the investigation, notification, and mitigation of identified exceedances of the water quality assessment criteria; and
 - (d) the procedures that would be followed if any unforeseen impacts are detected during the project.

REHABILITATION AND LANDSCAPE MANAGEMENT

Rehabilitation

24. The Proponent shall progressively rehabilitate the site in a manner that is generally consistent with the conceptual rehabilitation principles and proposed rehabilitation strategy in the EA (shown conceptually in Appendix 2), to the satisfaction of the Director-General.

Offset Strategy

25. Prior to starting operations in the extension area, the Proponent shall revise the Biodiversity Offset Strategy described in the EA and Response to Submissions (shown conceptually in Appendix 3), to the satisfaction of the Director-General. The revised strategy must be prepared in consultation with the DECC, and include additional areas where Yellow Box White Box Blakely's Red Gum Woodland EEC would be actively re-established within the identified biodiversity offset areas shown in Appendix 3.
26. Within 3 years of this approval, the Proponent shall make suitable arrangements to provide appropriate long term security for the offset areas to the satisfaction of the Director-General.

Landscape Management Plan

27. The Proponent shall prepare and implement a detailed Landscape Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared by suitably qualified expert/s whose appointment/s have been approved by the Director-General;
 - (b) submitted to the Director-General for approval prior to extraction under this approval; and
 - (c) include a:
 - Doughboy Hollow Creek Rehabilitation Strategy;
 - Rehabilitation and Biodiversity Offset Management Plan; and
 - Quarry Closure Plan.

Note: The Department accepts that the initial Landscape Management Plan may not include the detailed Quarry Closure Plan. However, if this occurs, the Proponent will be required to seek approval from the Director-General for an alternative timetable for the completion and approval of the Quarry Closure Plan.

Doughboy Hollow Creek Rehabilitation Strategy

28. The Doughboy Hollow Creek Rehabilitation Strategy must:
- (a) be prepared in consultation with the DPI and DWE;
 - (b) describe the measures that would be implemented to:
 - remove the weir from Doughboy Hollow Creek;
 - rehabilitate the creek; and
 - rehabilitate and/or re-establish riparian vegetation.

Rehabilitation and Biodiversity Offset Management Plan

29. The Rehabilitation and Biodiversity Offset Management Plan must:
- (a) be prepared by suitably qualified expert/s whose appointment/s have been approved by the Director-General;
 - (b) describe in general the short, medium, and long term measures that would be implemented to:
 - rehabilitate the site;
 - implement the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy; and
 - manage the remnant vegetation and habitat on the site;
 - (c) include a detailed description of what measures would be implemented over the next 3 years to implement the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy;
 - (d) include a detailed description of what measures would be implemented over the next 5 years to rehabilitate the site, including the procedures to be implemented for:
 - progressively rehabilitating areas disturbed by quarrying;
 - implementing revegetation and regeneration within the disturbance areas, including establishment of canopy, sub-canopy (if relevant), understorey and ground strata;
 - managing the remnant vegetation and habitat on site;
 - managing impacts on fauna;
 - reducing the visual impacts of the project;
 - landscaping the site to minimise visual impacts;
 - protecting areas outside the disturbance areas;
 - conserving and reusing topsoil;
 - collecting and propagating seeds for rehabilitation works;
 - salvaging and reusing material from the site for habitat enhancement;
 - controlling weeds and feral pests;
 - controlling access; and
 - bushfire management;
 - (e) detailed performance and completion criteria for the rehabilitation of the site and implementation of the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy;
 - (f) a detailed description of how the performance of the rehabilitation of the site and implementation of the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy would be monitored over time to achieve the relevant objectives and completion criteria;
 - (g) a description of the potential risks to successful revegetation and/or rehabilitation in the offset areas and project area, and a description of the contingency measures that would be implemented to mitigate these risks; and
 - (h) details of who is responsible for monitoring, reviewing and implementing the plan.

Quarry Closure Plan

30. The Quarry Closure Plan must:
- define the objectives and criteria for quarry closure;
 - investigate options for the future use of the site, including any final void(s);
 - describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the development; and
 - describe how the performance of these measures would be monitored over time.

Rehabilitation Bond

31. Within 3 months of the approval of the Landscape Management Plan, the Proponent shall lodge a rehabilitation bond with the Director-General to ensure that the rehabilitation and biodiversity offset obligations required in this approval are implemented in accordance with the performance and completion criteria in the Rehabilitation and Biodiversity Offset Management Plan. The rehabilitation bond may in the form of a bank guarantee or security bond. The sum of the bond shall be calculated by:
- a suitably qualified quantity surveyor at \$2.50/m² for the area to be disturbed over the next 5 year period at the quarry; and
 - a suitably qualified rehabilitation expert for land within the biodiversity offset areas where re-establishment of the EEC is proposed,
- to the satisfaction of the Director-General.

Notes:

- If the rehabilitation and biodiversity offset is completed to the satisfaction of the Director-General, the Department will release the rehabilitation bond.*
 - If the rehabilitation and biodiversity offset is not completed to the satisfaction of the Director-General, all or part of the rehabilitation bond will be used to ensure the satisfactory completion of the relevant works.*
32. Every 5 years, the Proponent shall review, and if necessary revise, the sum of the bond to the satisfaction of the Director-General. This review must consider:
- the effects of inflation;
 - any changes to the total area of disturbance; and
 - the performance of the rehabilitation against the completion criteria of the Rehabilitation, Biodiversity Offset Management Plan.

TRANSPORT

Product Transport

33. The Proponent shall:
- keep records of the:
 - amount of quarry materials imported onto the site each year;
 - amount of product transported from the site each year;
 - number of truck movements generated by the project, on a weekly basis;
 - number of train movements generated by the project, on a weekly basis;
 - date and time of each train movement generated by the project;
 - provide annual production data to the DPI using the standard form for that purpose; and
 - include these records in the AEMR.

Road Safety and Condition Audit

34. Prior to commencement of extraction under this approval, the Proponent shall undertake a Road Safety and Condition Audit for the project, to the satisfaction of the Director-General. This audit must:
- be prepared by a suitably independent and qualified expert/s whose appointment has been approved by the Director-General;
 - be prepared in consultation with the RTA and Council;
 - assess the safety, performance and condition of the Ardglen Street-New England Highway intersection and the quarry access route from the New England Highway to the quarry entrance (Ardglen Street, High Street (Swinging Bridges Road), St Stephen Street and Warra Street); and
 - identify any road works that are required to comply with relevant AUSROAD standards or other relevant RTA requirements.
35. Within 12 months of completing the Road Safety and Condition Audit, the Proponent shall undertake (and complete) any road works recommended in the Audit, to the satisfaction of the relevant roads authority (i.e. RTA or Council). If there is a dispute about the implementation of these measures, then the Proponent may refer the matter to the Director-General for resolution.

Road Signage

36. Within 3 months of this approval, the Proponent shall install warning signs ("Truck Turning") on the northern and southern approaches to the quarry access route on the New England Highway, to the satisfaction of the RTA.

Road Maintenance

37. The Proponent shall maintain the quarry access route from the New England Highway to the quarry entrance (Ardglen Street, High Street (Swinging Bridges Road), St Stephen Street and Warra Street) until the cessation of quarrying on the site, to the satisfaction of Council.

If the Proponent and the Council fail to reach agreement on the road maintenance requirements, then either party may refer the matter to the Director-General for resolution. Any determination by the Director-General's on this matter will be binding on the Proponent and the Council.

Road Haulage

38. The Proponent shall ensure that truck movements associated with the project do not exceed 50 movements on average per day.
39. The Proponent shall not use trucks with a capacity of greater than 35 tonnes to transport product from the site, unless otherwise agreed in writing by the RTA.
40. The Proponent shall ensure that all loaded vehicles entering or leaving the site are covered, and are cleaned of materials that may fall onto public roads.

Rail Loading

41. The Proponent may only load a maximum of 2 trains outside the rail loading and distribution hours in Table 1 in any 12 month period, unless agreed to in writing by the Director-General.
42. If the Proponent intends to undertake out of hours rail loading, it must use its best endeavours to notify all local residents at least 12 hours prior to the proposed rail loading, to the satisfaction of the Director-General.

Traffic and Transport Management Plan

43. Prior to commencement of extraction under this approval, the Proponent shall prepare and implement a Traffic and Transport Management Plan, to the satisfaction of the Director-General. The plan must include:
- (a) a driver code of conduct for the project to minimise the impacts of trucks on local residents;
 - (b) the measures that would be put in place to ensure compliance with the driver code of conduct;
 - (c) the measures that would be taken to avoid night time train loading operations; and
 - (d) the procedures for notifying local residents about night time train loading activities when these occur.

VISUAL IMPACT

44. The Proponent shall:
- (a) take all practicable measures to mitigate off-site lighting impacts from the project; and
 - (b) ensure that all external lighting associated with the project complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*, to the satisfaction of the Director-General.

ABORIGINAL CULTURAL HERITAGE

45. The Proponent shall not destroy any known Aboriginal objects (as defined in the *National Parks and Wildlife Act 1974*) without the written approval of the Director-General.

GREENHOUSE GAS

46. The Proponent shall:
- (a) monitor the greenhouse gas emissions generated by the project;
 - (b) investigate ways to reduce greenhouse gas emissions generated by the project; and
 - (c) report on greenhouse gas monitoring and abatement measures in the AEMR, to the satisfaction of the Director-General.

WASTE MINIMISATION

47. The Proponent shall:
- (a) monitor the amount of waste generated by the project;
 - (b) investigate ways to minimise waste generated by the project;
 - (c) implement reasonable and feasible measures to minimise waste generated by the project;
 - (d) ensure irrigation of treated wastewater is undertaken in accordance with DECC's *Use of Effluent by Irrigation*; and
 - (e) report on waste management and minimisation in the AEMR, to the satisfaction of the Director-General.
48. The Proponent shall ensure that all waste generated or stored on site is assessed, classified and managed in accordance with the DECC's *Waste Classification Guidelines Part 1: Classifying Waste*.
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SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. If the results of monitoring required in Schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent shall notify the Director-General and the affected landowners and/or existing or future tenants (including tenants of quarry owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the relevant criteria.

INDEPENDENT REVIEW

2. If a landowner (excluding quarry owned properties) considers that the operations of the project are exceeding the impact assessment criteria in Schedule 3 then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land.

If the Director-General is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Director-General's decision:

- (a) consult with the landowner to determine his/her concerns;
 - (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land to:
 - determine whether the project is complying with the relevant impact assessment criteria in Schedule 3; and
 - identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and
 - (c) give the Director-General and landowner a copy of the independent review.
3. If the independent review determines that the project is complying with the relevant impact assessment criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.
 4. If the independent review determines that the project is not complying with the relevant impact assessment criteria in Schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent shall:
 - (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria; and
 - (b) conduct further monitoring to determine whether these measures ensure compliance.

If the additional monitoring referred to above subsequently determines that the project is complying with the relevant criteria in Schedule 3, or the Proponent and landowner enter into a negotiated agreement to allow these exceedances, then the Proponent may discontinue the independent review with the approval of the Director-General.

5. If the independent review determines that the relevant criteria in Schedule 3 are being exceeded, then the Proponent shall:
 - (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the relevant criteria are complied with; and
 - (b) conduct further monitoring to determine whether these measures ensure compliance; or
 - (c) secure a written agreement with the landowner to allow exceedances of the criteria in Schedule 3.

If the additional monitoring referred to above subsequently determines that the project is complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.

6. If the landowner disputes the results of the independent review, either the Proponent or the landowner may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 6).

LAND ACQUISITION

7. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:
- (a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the project the subject of the project application, having regard to the:
 - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
 - presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional noise mitigation measures in conditions 5 and 6 of Schedule 3;
 - (b) the reasonable costs associated with:
 - relocating within the Liverpool Plains local government area, or to any other local government area determined by the Director-General;
 - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; and
 - (c) reasonable compensation for any disturbance caused by the land acquisition process.

However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land, and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution.

Upon receiving such a request, the Director-General shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer or Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or terms upon which the land is to be acquired.

Within 14 days of receiving the independent valuer's determination, the Proponent shall make a written offer to purchase the land at a price not less than the independent valuer's determination.

If the landowner refuses to accept this offer within 6 months of the Proponent's offer, the Proponent's obligations to acquire the land shall cease, unless otherwise agreed by the Director-General.

8. The Proponent shall bear the costs of any valuation or survey assessment requested by the independent valuer, or the Director-General, and the costs of determination referred above.
9. If the Proponent and landowner agree that only part of the land shall be acquired, then the Proponent shall pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.
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SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING & REPORTING

ENVIRONMENTAL MANAGEMENT STRATEGY

1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must be submitted to the Director-General within 6 months of this approval, and:
 - (a) provide the strategic framework for environmental management of the project;
 - (b) identify the statutory requirements that apply to the project;
 - (c) describe in general how the environmental performance of the project would be monitored and managed;
 - (d) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the project;
 - respond to any non-compliance; and
 - respond to emergencies; and
 - (e) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the project.

ENVIRONMENTAL MONITORING PROGRAM

2. The Proponent shall prepare and implement an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must be submitted to the Director-General within 6 months of this approval, and consolidate the various monitoring requirements in Schedule 3 of this approval into a single document, and be submitted to the Director-General concurrently with the submission of the relevant monitoring programs/plans.

REPORTING

Incident Reporting

3. Within 7 days of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent shall report the exceedance/incident to the Department and any relevant agencies. This report must:
 - (a) describe the date, time, and nature of the exceedance/incident;
 - (b) identify the cause (or likely cause) of the exceedance/incident;
 - (c) describe what action has been taken to date; and
 - (d) describe the proposed measures to address the exceedance/incident.

Annual Reporting

4. Within 12 months of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and relevant agencies. This report must:
 - (a) identify the standards and performance measures that apply to the project;
 - (b) describe the works carried out in the last 12 months;
 - (c) describe the works that will be carried out in the next 12 months;
 - (d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;
 - (e) include a summary of the monitoring results for the project during the past year;
 - (f) include an analysis of these monitoring results against the relevant:
 - limits/criteria in this approval;
 - monitoring results from previous years; and
 - predictions in the EA;
 - (g) identify any trends in the monitoring results over the life of the project;
 - (h) identify and discuss any non-compliance during the previous year; and
 - (i) describe what actions were, or are being, taken to ensure compliance.

INDEPENDENT ENVIRONMENTAL AUDIT

5. Within 2 years of extraction under this approval, and every 5 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
 - (a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Director-General;

- (b) assess the environmental performance of the project, and its effects on the surrounding environment;
- (c) assess whether the project is complying with the relevant standards, performance measures, and statutory requirements;
- (d) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,
- (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.

Note: This audit team must be led by a suitably qualified auditor, and include experts in the field of noise and rehabilitation.

- 6. Within 6 weeks of completing this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General with a response to any recommendations contained in the audit report.
- 7. Within 3 months of submitting the audit report to the Director-General, the Proponent shall review and if necessary revise the strategies/plans/programs required under this approval, to the satisfaction of the Director-General.

COMMUNITY CONSULTATIVE COMMITTEE

- 8. The Proponent shall operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General, in general accordance with the *Guideline for Establishing and Operating Community Consultative Committees for Mining Projects*.

ACCESS TO INFORMATION

- 9. Within 3 months of the approval of any plan/strategy/program required under this approval (or any subsequent revision of these plans/strategies/programs), or the completion of the audits or AEMRs required under this approval, the Proponent shall:
 - (a) provide a copy of the relevant document/s to the relevant agencies and CCC; and
 - (b) put a copy of the relevant document/s on its website.
- 10. During the development, the Proponent shall:
 - (a) include a copy of this approval, as may be modified from time to time, on its website;
 - (b) provide a full summary of monitoring results required under this approval on its website; and
 - (c) update these results on a regular basis (at least every 6 months).

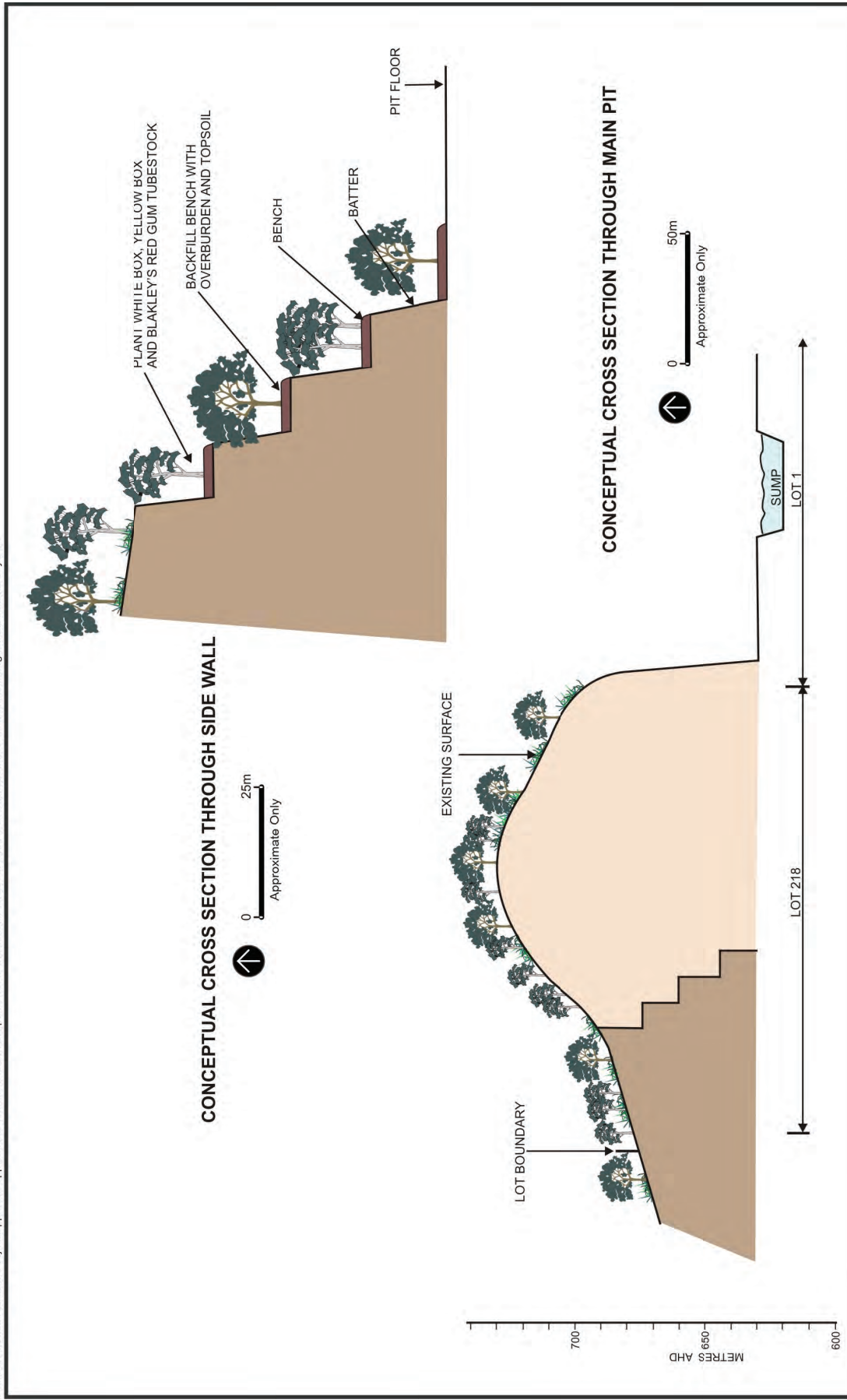
APPENDIX 1 GENERAL PROJECT LAYOUT



APPENDIX 2 CONCEPTUAL REHABILITATION PLAN

JobNo20050038419/Draft Project Approval/ Appendix 2/Rehabilitation/Final Landform cdf 08 07 05 2008 JD Environmental Resources Management Australia Pty Ltd





APPENDIX 3 CONCEPTUAL OFFSET PLAN



APPENDIX 4
STATEMENT OF COMMITMENTS

Table 1: Statement of Commitments

Item Number	Item	Commitment	Responsibility	Timing
1	Scope of Development	<p>The project will be carried out generally in accordance with the following plans and documentation, except where amended by the conditions of the project approval:</p> <ul style="list-style-type: none"> the Environmental Assessment (EA) prepared by ERM (June, 2007) and accompanying specialist reports; the Response to Submissions report prepared by ERM (November, 2007); and this revised Statement of Commitments. 	Daracon Quarries	Ongoing for the duration of the project.
2	Statutory Requirements	All necessary licences, permits and approvals will be obtained and maintained for the project.	Daracon Quarries	Ongoing for the duration of the project.
3		In accordance with section 104A of the EP&A Act, the proponent will surrender the existing development consent applying to Lot 1 DP 1001734, issued by Murrurundi Shire Council in May 1994.	Daracon Quarries	Within 2 years of work commencing within the extension area.
4	General	<p>The proponent will prepare and implement an Environmental Management System (EMS) based on the AS/NZS ISO 14001:2004 - Environmental Management Systems.</p> <p>The EMS will:</p> <ul style="list-style-type: none"> incorporate an operational Environmental Management Plan (EMP); detail potential environmental risks due to operation of the proposed quarry; provide measures for the prevention, minimisation and management of these impacts to within acceptable limits; and provide a means for the project to improve environmental performance and move towards environmental sustainability. 	Daracon Quarries	EMS to be submitted for approval prior to work commencing within the extension area.
5	Water Management	<p>The proponent will prepare and implement a Surface Water Management Plan for the project that will include:</p> <ul style="list-style-type: none"> an Erosion and Sediment Control Plan (including procedures to minimise erosion, capture of sediment on-site, and maintenance of control structures); 	Daracon Quarries	Plan to be submitted for approval prior to work commencing within the extension area.

Item Number	Item	Commitment	Responsibility	Timing															
6	Biodiversity	<ul style="list-style-type: none">• a Site Water Balance; and• a Water Quality Monitoring Program	Daracon Quarries	Ongoing for the duration of the project.															
		The proponent will implement the biodiversity offset strategy outlined in the EA, which includes the conservation and long term protection of the areas described in <i>Table 1</i> .																	
		<i>Table 1 Biodiversity Offset Areas</i>																	
		<table><tr><th>Land Description</th><th>Area (ha)</th><th>Proposed Management Strategy</th></tr><tr><td>Lot 187 DP 751028</td><td>8.2</td><td>stock removal, weed control, planting of EEC trees, transport of logs and rocks, provision of nest boxes</td></tr><tr><td>Lot 39 DP 751028</td><td>11.65</td><td>stock removal, weed control, major planting of EEC trees and grasses, transport of logs and rocks</td></tr><tr><td>Lot 49 DP 751028</td><td>16.3</td><td>stock removal, weed control</td></tr><tr><td>Total</td><td>36.15</td><td></td></tr></table>			Land Description	Area (ha)	Proposed Management Strategy	Lot 187 DP 751028	8.2	stock removal, weed control, planting of EEC trees, transport of logs and rocks, provision of nest boxes	Lot 39 DP 751028	11.65	stock removal, weed control, major planting of EEC trees and grasses, transport of logs and rocks	Lot 49 DP 751028	16.3	stock removal, weed control	Total	36.15	
		Land Description			Area (ha)	Proposed Management Strategy													
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Lot 49 DP 751028	16.3	stock removal, weed control																	
Total	36.15																		
7		<p>The proponent will prepare a detailed biodiversity offset management plan in consultation with the DECC and submit it for approval by the Director-General. The plan will include:</p> <ul style="list-style-type: none">▪ proposed staging;▪ planting details such as final density, species mix, sowing rates, fertiliser;▪ proposed maintenance schedule;▪ weed control;▪ importation of rock and log shelter;▪ topsoil handling;▪ fencing;	Daracon Quarries	Plan to be submitted for approval prior to work commencing within the extraction area.															

Item Number	Item	Commitment	Responsibility	Timing
		<ul style="list-style-type: none"> pre-clearing surveys of all hollow bearing trees within the proposed quarry extension area; herbivore control; and number and location of nest boxes. 		
8		The proponent will make suitable arrangements to provide appropriate long term security for the offset areas.	Daracon Quarries	Within 3 years of work commencing within the extraction area.
9	Noise	<p>The proponent will continue to implement the following measures, which are currently in place at Ardglan Quarry, to mitigate noise impacts:</p> <ul style="list-style-type: none"> quarry hours are restricted to between 6am and 5.30pm; noise created by the haul trucks, both empty and loaded, is reduced by imposing a speed limit of 50 km/h when travelling on local roads between the quarry and the highway. Trucks on site are limited to a speed of 25 km/h; all on-site, fixed and mobile diesel-powered plant, excluding road vehicles, are correctly fitted and maintained to manufacturer specifications. Particular attention is given to engine exhaust systems and the care and maintenance of mufflers. <p>Further noise control is nominated through the implementation of the following measures:</p> <ul style="list-style-type: none"> reduction of equipment through the separation of site activities to overburden stripping and extraction, whereby they do not occur simultaneously; rail loading will be limited to the day period (7am to 6pm) as much as practicable; the surge bin will be lined with latex or polymer liners to reduce impulsive noise; a sheet metal enclosure will be built around the rail loader discharge and extend to include the rail wagon being loaded. The enclosure will be constructed of sheet metal and will cover the length of a minimum of three wagons whereby the wagon being loaded will be in the centre of the enclosure. The enclosure will be open at the ends and will contain a roof which will be connected to the rail loader discharge. 	Daracon Quarries	Ongoing for the duration of the project.

Item Number	Item	Commitment	Responsibility	Timing
10		<p>Gaps between the loader discharge and the roof will be sealed;</p> <ul style="list-style-type: none"> the two scrapers initially assigned for overburden stripping will be replaced by one excavator and two articulated dump trucks; the existing three crushers will be acoustically treated by extending the metal cladding on the crushing and screening station building to ground level with no gaps or openings; the existing screens will be located behind earth bunds; and mobile acoustic barriers or earth mounds will surround the drill rig and any mobile plant situated on the surface during initial stripping; and where land slopes away from stripping activities to receivers, barriers will be raised to a height of 4 metres, so there is no direct line of sight to receivers. <p>Except during night-time rail loading activities, the proponent will ensure that the noise generated by the project does not exceed the levels set out in <i>Table 2</i>, at any privately-owned residence, unless a specific agreement is reached with the landholder, in which case the proponent may exceed the noise limits set out in <i>Table 2</i> in accordance with the negotiated noise agreement.</p>	Daracon Quarries	Ongoing for the duration of the project.

Table 2 Noise Criteria

Land	Noise Level LAeq dB(A)
1 - Burraston	35
2 - Rose	35
4 - CM Thomson	44
5 - M Taylor	45
6 - S Thompson	45
9 - Bates	37
10 - Avery	38

Item Number	Item	Commitment	Responsibility	Timing
		11 - Shipman 37 12 - Hall 36 13 - McGhie 35 14 - Purtell 36 15 - J Taylor 43 16 - Bojba 40		
11	Blasting and Vibration	<p>The proponent will implement the following measures to mitigate the impacts of blasting and vibration:</p> <ul style="list-style-type: none"> blasting will be limited to between the hours of 10am and 4pm, Monday to Friday and residents in the vicinity of the quarry will be given adequate notification of forthcoming blasts; air-blast overpressure from any blast will not exceed 120 dB(L-peak) at any privately-owned residence for more than 5% of all blasts over a 12 month period. It will not exceed 115 dB(L-peak) at any time, unless specific prior agreement is reached with the affected landholder; peak particle velocity (ppv) from ground vibration will not exceed 5 mm/s at any privately-owned residence for more than 5% of the total number of blasts over a 12 month period. The maximum level will not exceed 10 mm/s at any time; the existing blast management strategy will continue to be implemented to ensure appropriate charge masses are used to avoid excessive air blast overpressure and ground vibrations; and a Blast Monitoring Program will be prepared and submitted to the Director-General for approval 	Daracon Quarries	Ongoing for the duration of the project.

Item Number	Item	Commitment	Responsibility	Timing
12	Air Quality	<p>In addition to the dust mitigation measures currently employed, the proponent will implement the following measures to ensure particulate matter emissions are minimised:</p> <ul style="list-style-type: none"> ▪ revegetation of exposed surfaces where possible; ▪ sealing the haul road; ▪ limiting the speed limit on unpaved surfaces to 15 km/hr; ▪ high level watering of unpaved road surfaces (greater than 2L/ m2/hr); ▪ covering all loads leaving the site; ▪ building a wheel wash at the end of the unpaved section of the haul road (after the weighbridge); and ▪ wet suppression or chemical coating of static stockpiles. 	Daracon Quarries	Ongoing for the duration of the project.
13		<p>The proponent will prepare and implement an air quality monitoring program for the project. The program will include:</p> <ul style="list-style-type: none"> ▪ a series of dust deposition gauges operated in accordance with Australian/New Zealand Standard AS/NZS 3580.10.1:2003; and ▪ a series of high volume or low volume air samplers to monitor levels of PM10, operated in accordance with Australian/New Zealand AS/NZS 3580.9.6:2003 and AS/NZS 3580.9.6:2003. 	Daracon Quarries	Program to be submitted for approval prior to work commencing within the extension area.
14	Rehabilitation	The proponent will prepare a detailed biodiversity offset plan to provide an integrated plan for the whole site, considering the existing quarry areas, the western extension, the areas of box-gum woodland to be preserved and the areas to be planted as offsets. This plan will be prepared in liaison with the DECC and lodged for approval by the Director-General.	Daracon Quarries	Plan to be submitted for approval prior to work commencing within the extension area.
15		The proponent will progressively rehabilitate the site, generally in accordance with the rehabilitation strategy outlined in the EA.	Daracon Quarries	Ongoing for the duration of the project.

Item Number	Item	Commitment	Responsibility	Timing
16		The proponent will lodge a rehabilitation bond with the Director-General to ensure that rehabilitation of the site is satisfactorily completed, generally in accordance with the rehabilitation strategy outlined in the EA.	Daracon Quarries	Within 6 months of work commencing within the extension area.
17	Traffic Management and Access	The proponent will not transport more than 500,000 tonnes of product from the site each year.	Daracon Quarries	Ongoing for the duration of the project.
18		<p>The proponent will keep daily records of:</p> <ul style="list-style-type: none"> the type and amount of product transported from the site and the method of transportation i.e. road or rail; and the type and amount of quarry material imported onto the site and the method of transportation i.e. road or rail. 	Daracon Quarries	Ongoing for the duration of the project.
19		The proponent will maintain the quarry access route from the New England Highway to the quarry entrance, to at least its present standard (two lane rural road), to the satisfaction of Council.	Daracon Quarries	Ongoing for the duration of the project.
20	Visual Amenity	<p>The proponent will implement the following mitigation measures to reduce the potential visual impacts of the project:</p> <ul style="list-style-type: none"> those areas of the quarry in which the resource has been exhausted will be progressively rehabilitated and revegetated; and further planting will be undertaken along the ridgeline to the west of the proposed extension area. 	Daracon Quarries	Further planting to be undertaken prior to work commencing within the extension area.

21	Aboriginal Cultural Heritage	Should any Aboriginal objects (artefacts) be exposed during ground surface disturbance, all works involving ground surface disturbance will be suspended. A representative of the Nungaroo Local Aboriginal Land Council and an archaeologist will conduct an assessment of the significance of the Aboriginal object(s) and identify appropriate mitigation and management measures.	Daracon Quarries	Ongoing for the duration of the project.
22	Community Consultation	The proponent will continue to engage the community in consultation, with the aim of providing the community with up-to-date information in relation to the project and quarry operations in general, and allowing the community to provide feedback and raise any issues or concerns. On-going consultation will include distribution of an annual community newsletter and individual face-to-face meetings with adjoining landowners and other stakeholders when required.	Daracon Quarries	Ongoing for the duration of the project.
23	Annual Reporting	<p>The proponent will prepare and submit to the Director-General an Annual Environmental Management Report (AEMR). The AEMR will:</p> <ul style="list-style-type: none"> ▪ include a summary of the environmental monitoring results for the project for the past year; ▪ include an analysis of the monitoring results against relevant limits/criteria and monitoring results from previous years; and ▪ identify and discuss any non-compliances during the past year and detail any actions taken to ensure compliance. 	Daracon Quarries	Report to be submitted annually

Appendix 2 Noise monitoring report



23 September 2016

Ref: 161308/6713

Daracon Quarries Pty Ltd
PO Box 299
WALLSEND NSW 2287

RE: AUGUST 2016 ATTENDED NOISE MONITORING RESULTS – ARDGLEN QUARRY

This letter report presents the results of attended noise monitoring conducted for the Ardglenn Quarry (AQ) on Thursday 18th August 2016. The monitoring was carried out specifically to measure noise emissions during train loading at the quarry. Noise monitoring was carried out in accordance with the conditions of the AQ Noise Monitoring Plan (NMP) as detailed below.

NOISE CRITERIA

*The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in **Table 1** at any residence on privately-owned land, or more than 25% of any privately owned land.*

Table 1				
Noise Impact Assessment Criteria				
Land	Day Leq (15 min)	Evening Leq (15 min)	Night	
			Leq (15 min)	L1 (1 min)
1 Burraston	35	35	35	45
3 Rose	35	35	35	45
4 C M Thompson	44	35	35	45
5 M Taylor	45	35	35	45
6 S Thompson	45	35	35	45
9 Bates	37	35	35	45
10 Avery	38	35	35	45
11 Shipman	37	35	35	45
12 Hall	36	35	35	45
13 McGhie	35	35	35	45
14 Purtell	36	35	35	45
15 J Taylor	43	35	35	45
16 Bojba	40	35	35	45
All other privately owned land	35	35	35	45

However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 1, and a copy of this agreement has been forwarded to the Department and the DECCW, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated agreement. The Proponent may also exceed the L1 (1 min) and Leq (15 min) noise impact criteria during out of hours rail loading activities provided they are conducted in accordance with Section 3, Condition 41 of the Project Approval (which is reproduced below).

41. The Proponent may only load a maximum of 2 trains outside the rail loading and distribution hours listed in Table 1 (of the Project Approval, being Monday to Sunday 7:00am to 10:00pm) in any 12 month period, unless agreed in writing by the Director General.

Notes:

- For information on the numbering and identification of properties used in this approval see Figure 2 on Page 14 of this Noise Monitoring Program).
- To determine compliance with the LAeq (15 minute) noise limits, noise from the project is to be measured at the most affected point on or within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the development is impractical, the DECCW may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- To determine compliance with the L1 (1 minute) noise limits, noise from the project is to be measured 1m from the dwelling facade. Where it can be demonstrated that direct measurement of noise from the development is impractical, the DECCW may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).
- The noise emission limits identified in the above table apply under meteorological conditions of:
 - wind speeds of up to 3 m/s at 10 metres above ground level; or
 - Temperature inversion conditions of up to 3°C/100m, and wind speeds of up to 2 m/s at 10 metres above ground level.

NOISE MONITORING LOCATIONS

Noise measurement locations for the attended noise survey are listed below and shown in the accompanying figure:

Location 4: C M Thompson
Location 13: McGhie
Location 14: Purtell
Location 16: Bojba



ATTENDED NOISE MEASUREMENTS

Noise emission levels were measured with Brüel & Kjær Type 2260 Precision Sound Analysers. These instruments have Type 1 characteristics as defined in AS1259-1982 "Sound Level Meters". Calibration of the instruments was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2m above ground level. The weather throughout the survey was generally warm with relatively clear skies at 2 octas cloud cover. Wind speed was approximately 1m/s from the south east.

Throughout the monitoring period the quarry was not operating.

RESULTS OF ATTENDED MONITORING

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær “*Evaluator*” software. The software enables the contributions of the quarry and other significant noise sources to the overall to be quantified.

Noise levels were recorded for each of the Leq (15 min), Lmax, L1, L10, L90 and Lmin percentiles. As shown in Table 1, the noise criterion for AQ during the day is based on an Leq noise level. The results shown in **Table 2**, below, represent the total 15 minute Leq noise level for all noise sources and the relative contributions of each. Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request. The exception is the L1 (1 min) noise level (which is the standard measure of sleep disturbance) which is applicable to noise emissions at night (i.e. between 10 pm and 7 am).

Table 2 Ardglen Quarry Noise Monitoring Results – 18 August 2016 (Day)				
Location	Time	dB(A), Leq	Wind speed/ direction	Identified Noise Sources
4. Thompson	10:07 am	42	1 m/s SE	Traffic (40), birds (35), AQ inaudible
13. McGhie	10:25 am	38	1 m/s SE	Traffic (35), birds (35), AQ inaudible
14. Purtell	10:05 am	41	1 m/s SE	Traffic (39), birds (38), AQ inaudible
16. Bojba	10:24 am	44	1 m/s SE	Traffic (44), AQ inaudible

As the quarry was not working at the time of the monitoring there were no noise emissions and there is no requirement for any further analysis of the data.

UNATTENDED NOISE MEASUREMENTS

The NMP requires that unattended noise logging be undertaken over a period of seven days, part of which coincides with the quarterly attended noise monitoring. To measure the acoustic environment Rion NL-42 sound level meters, set up as environmental noise loggers, were located on a fence line in the vicinity of R14 and to the west of the fence at R16 from 18th to 25th August, 2016. **Table 3** shows a summary of the relevant measured data from the loggers which is also shown graphically in **Appendix I**.

TABLE 3 MEASURED LOGGER NOISE LEVELS dB(A) 18 th to 25 th August, 2016						
Logger Location	Day (7am to 6pm)		Evening (6pm to 10 pm)		Night (10pm to 7am)	
	Leq	L90	Leq	L90	Leq	L90
R14	53	33	48	36	46	31
R16	50	37	46	34	50	29

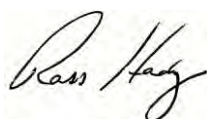
The unattended noise loggers measure the total noise level in the environment but the data cannot discriminate between various noise sources. As such, the data is presented here with no further analysis.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

SPECTRUM ACOUSTICS PTY LIMITED

Author:



Ross Hodge

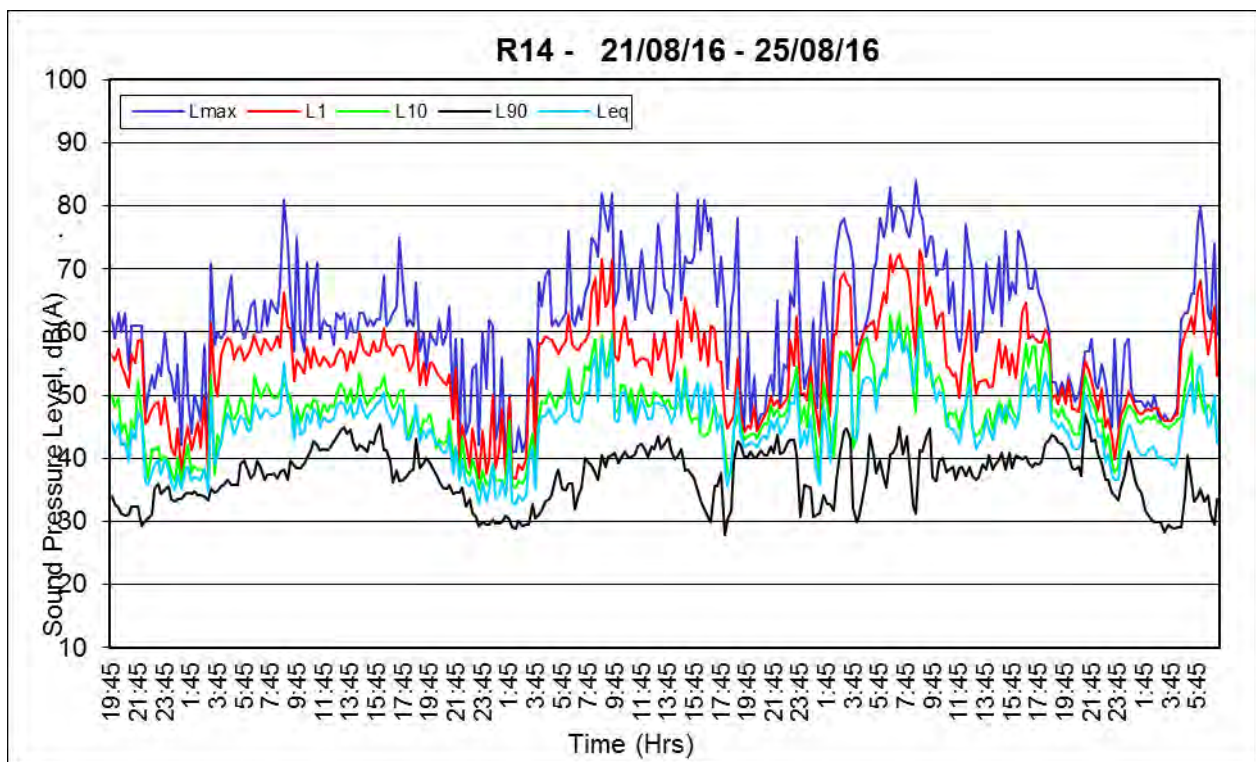
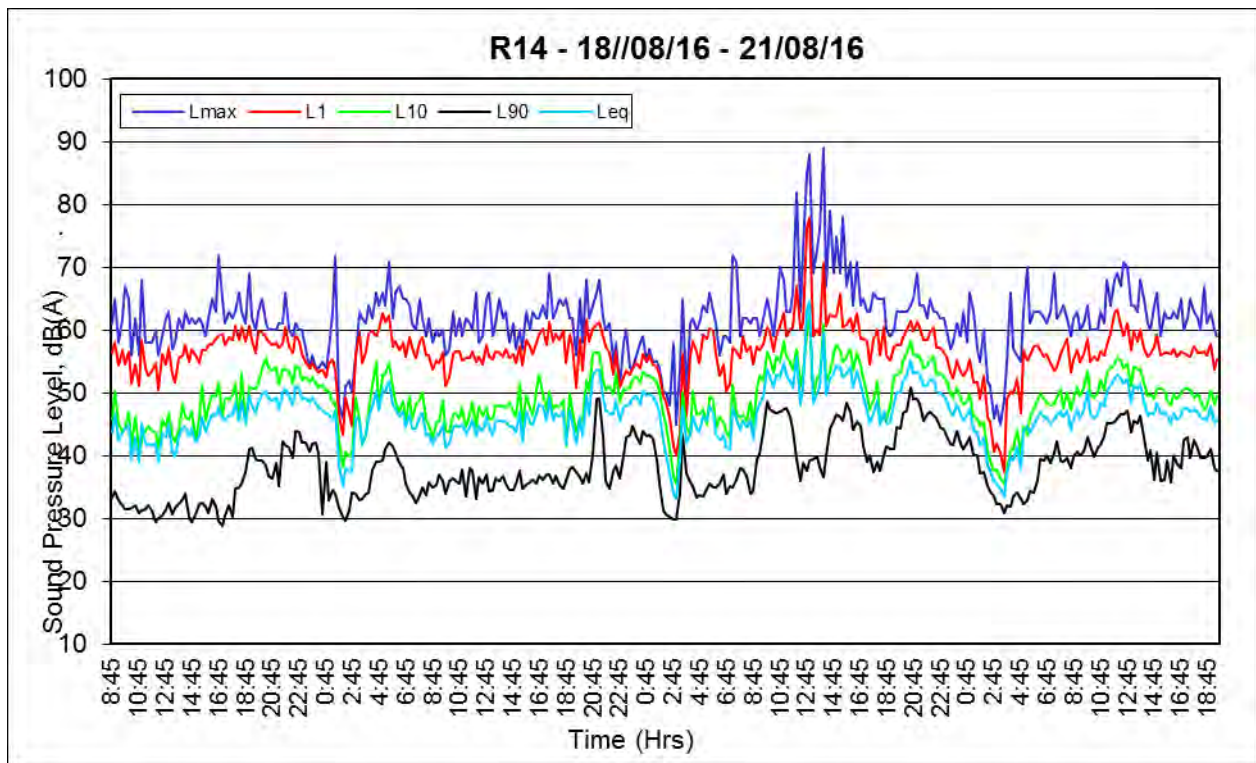
Acoustical Consultant

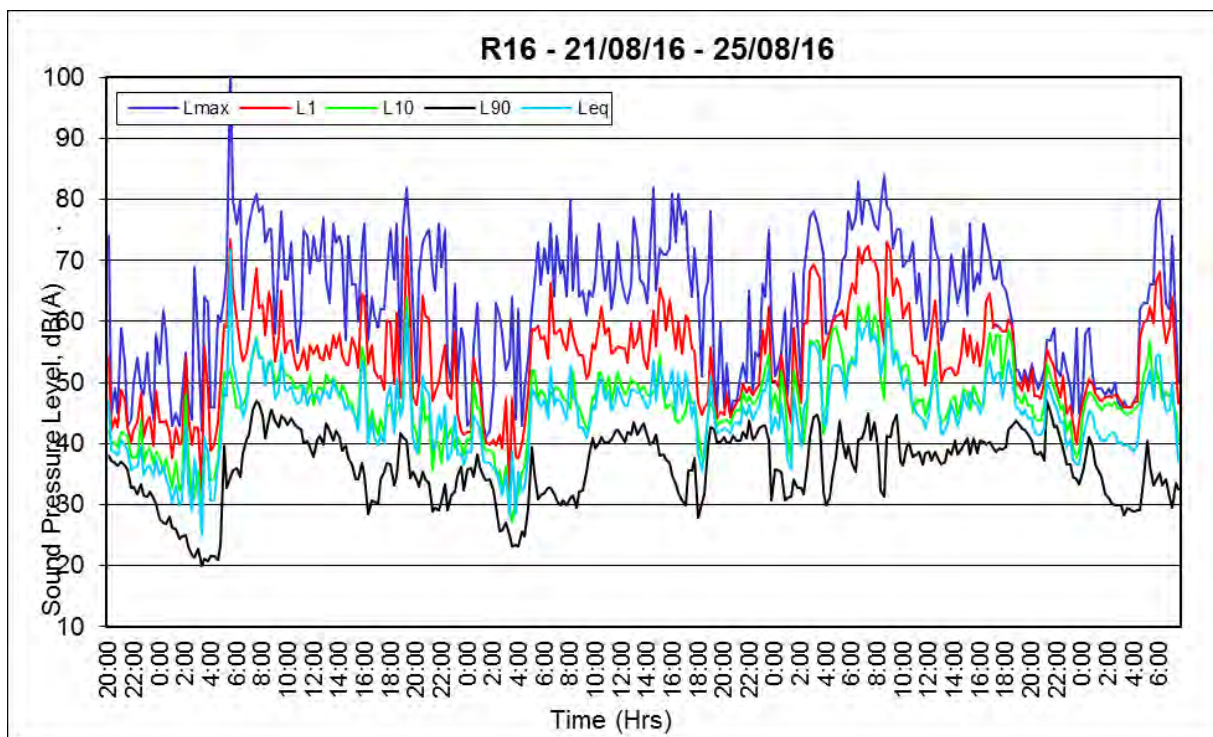
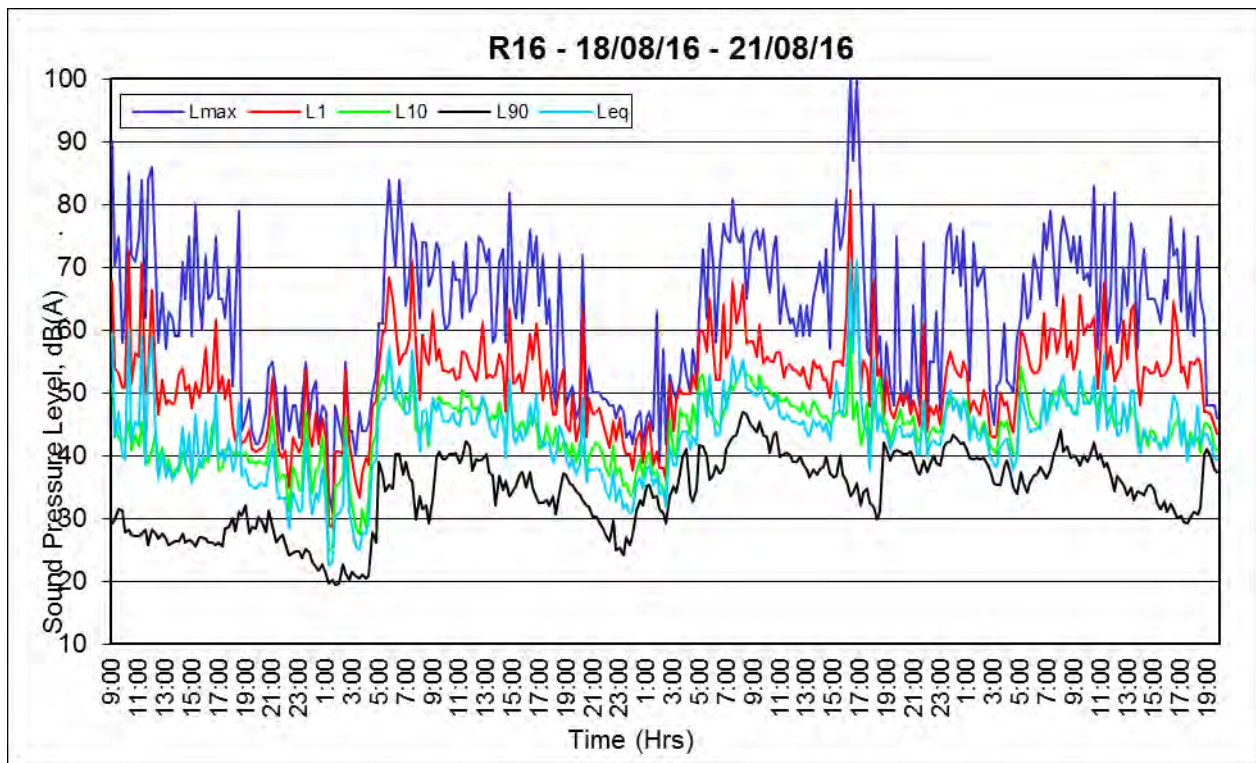
Review:



Neil Pennington

Acoustical Consultant





Appendix 3 2016 Community Consultative Committee Meeting Minutes

Ardglen Quarry Community Consultative Committee Meeting Notes

Murrurundi Library, 10:30am on 23rd August 2016

Attendees:

Shay Riley-Lewis (Independent Chairperson)

Dell Ross (Community Representative)

Bill Avery (Community Representative)

Megan Taylor (Community Representative)

Jason Hearn (Daracon)

Dan Smith (Daracon)

Greg Dressler (Daracon)

Luke Robinson (Daracon)

1. Welcome and introductions

2. Apologies

Apologies were received from Jack Massey of Liverpool Plains Shire Council and community representative Christine Thomson.

[A late apology was also received from Anna Cronin of Department of Primary Industries - Lands]

3. Pecuniary Interests

The Chair acknowledged her role on the Ardglen CCC and Buttai Quarry Community Liaison Group, is funded by Daracon.

Dell Ross acknowledged Daracon are the landlords of her residence at Ardglen.

4. Confirmation of previous minutes of meeting held 17 November 2015

Minutes were confirmed.

5. Issues raised from previous minutes

Daracon provided the following responses to actions arising from the previous meeting:

- Electricity capacity for rail loading operations

Daracon has discussed the electricity supply with a specialist electrical engineer (Clarence Consulting) who confirmed the quarry supply is on a separate circuit than domestic supply and therefore, quarry activities do not contribute to any domestic 'brown outs'.

Daracon advised any new development or increase in electrical usage must be approved by the provider Essential Energy.

- Informal dam

Community representatives confirmed Do Boy (spelling?) Hollow Creek is an informal dam which appears to be the result of a natural depression in the creek bed.

MT advised the creek crossing has been there for as long as they could recall.

DR advised the gabion rocks were installed years ago when the railway owned the quarry.

Daracon advised there are no known approvals for the dams and noted they do not appear to be blocking water flow.

- Silting of creek

Daracon conducted an inspection and noted the silt build-up appears to have been there some time and is overgrown with grasses. It was observed to comprise a mix of silt and natural bedrock.

The silt is not considered likely to be from the quarry since all quarry surface water is directed to onsite erosion and sediment control dams.

Regular environmental management inspections are conducted both internally and by external consultants. Weekly air quality monitoring and Monthly dust gauge monitoring also occurs.

6. Planned activities

Daracon presented an overview of the background and current status of the site's operations (refer presentation provided in [Attachments](#)). Ongoing compliance monitoring is still required even in care and maintenance mode.

Air monitoring results have reported levels consistently below criteria.

An additional dust deposition gauge has been installed at Christine Thomson's property since the last meeting as requested. All results to date have been below criteria.

MT noted that the monitoring during care and maintenance establishes a good baseline for when operations recommence.

Activities planned for the remainder of the year include preparation of plans to accompany the proposed s75W modification application to be lodged with the Department of Planning and Environment (DP&E) including:

- Surface water management plan
- Noise management plan
- New mine plan

Quarrying activities will not recommence until the s75W is approved.

The proposed extraction face will only be visible from Dells property. DR advised she has tree plantings to screen the view and is not concerned about the proposal.

MT advised she has no concern with the future view to the quarry face.

The modified extraction area enables use of the overburden inside the pit rather than require stockpiling on higher more visible land.

The transformer yard has been removed as required by DP&E. Consent for demolition of the transformer yard and other structures was obtained from Liverpool Plains Shire Council. However, other structures won't be removed until approval of the s75W modification.

7. Questions

The community representatives requested all future meetings require attendance in person.

8. Date of next meeting

The community representatives agreed that it is preferred to not meet again until there is new information to discuss. The Chair will contact Daracon in January 2017 to check the status of the modification application and works program. If substantial progress has not been made on the preparation of management plans for the proposed s75W modification application then community representatives will be advised and the next meeting postponed.

Next meeting 10:30am Tuesday 4th April 2017 at Murrurundi Library.

Meeting Closed at 11:30am.

Attachments:

DRAFT

Ardglen Quarry

Community Consultative Committee

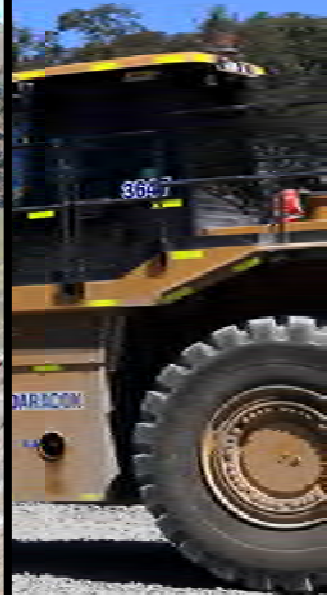


23 August 2016

Map of Area

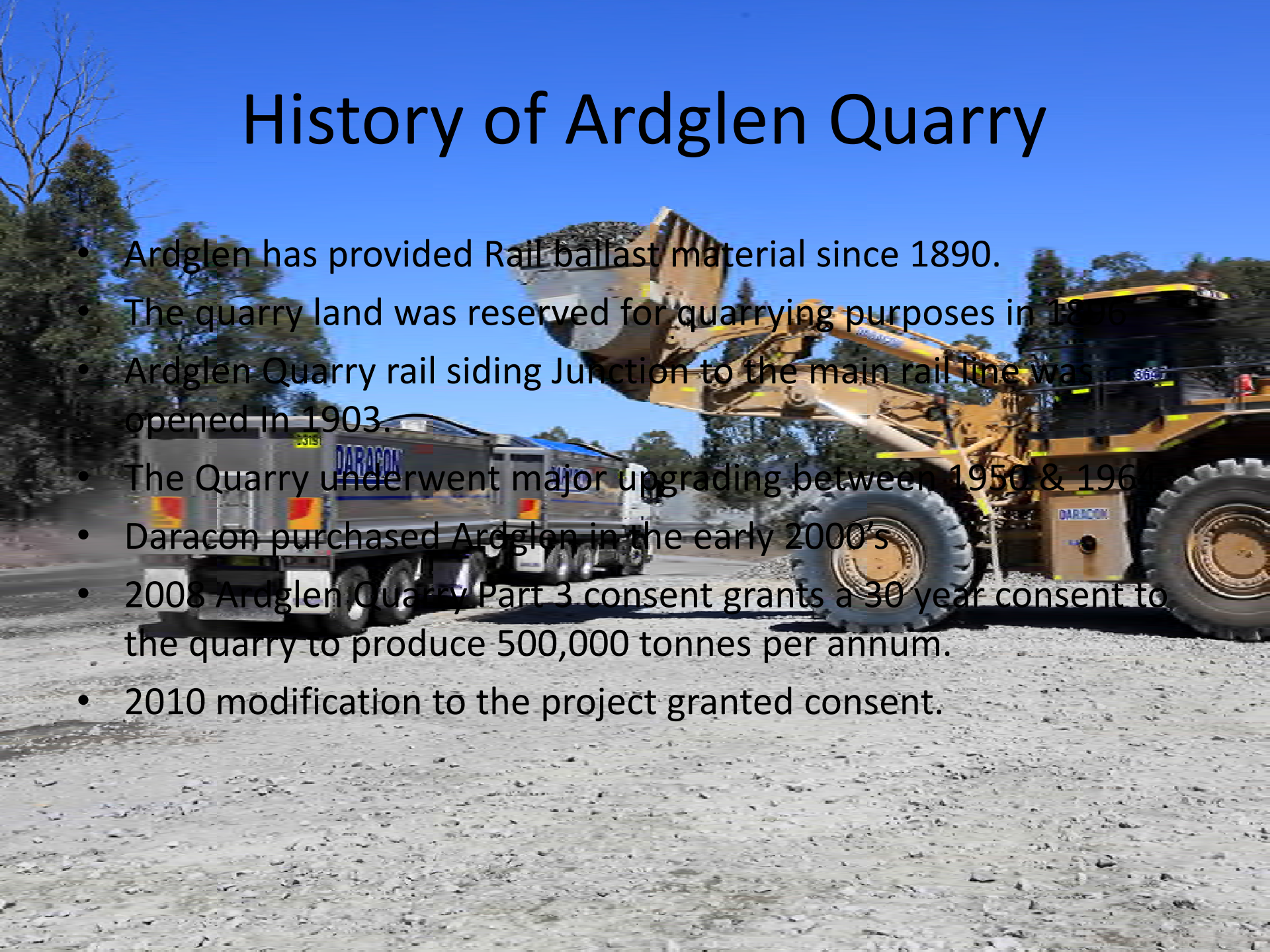


Picture of Previous Operations



History of Ardglan Quarry

- Ardglan has provided Rail ballast material since 1890.
- The quarry land was reserved for quarrying purposes in 1896.
- Ardglan Quarry rail siding Junction to the main rail line was opened in 1903.
- The Quarry underwent major upgrading between 1950 & 1960.
- Daracon purchased Ardglan in the early 2000's.
- 2008 Ardglan Quarry Part 3 consent grants a 30 year consent to the quarry to produce 500,000 tonnes per annum.
- 2010 modification to the project granted consent.



[illegible]

- [illegible]

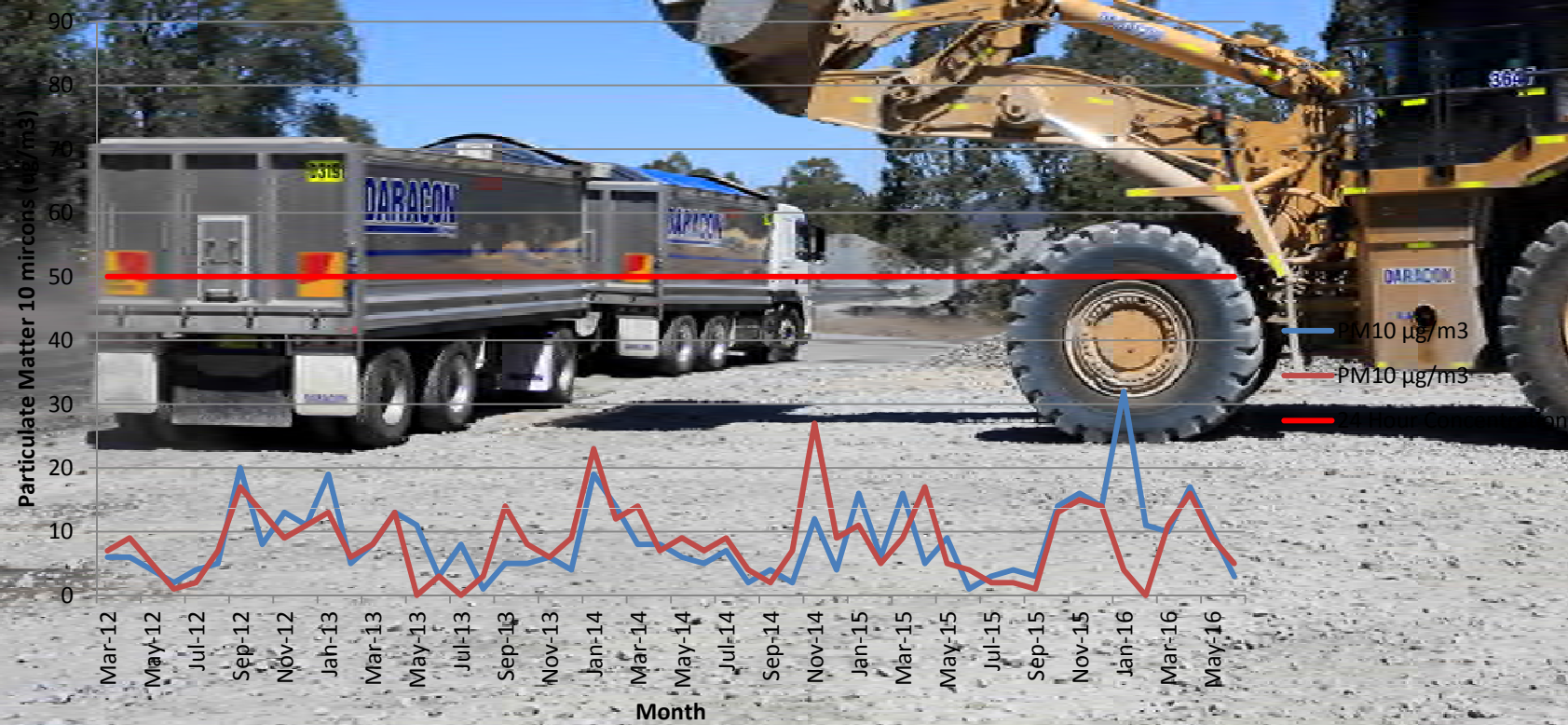
[illegible]

Air - High Volume Air Sampler (Annual average)



	2012	2013	2014	2015	2016
PM10-1	7.72	9.47	8.58	9.24	10.57
Pm10-2	9.69	9.31	10.30	8.91	10.00
Annual Average	30	30	30	30	30
Year					

Air - High Volume Air Sampler (24 hour concentration)



Water - Total Suspended Particulate (TSP)



What's proposed for Ardglenn:

- Daracon intends to re-commission Ardglenn Quarry with upgraded contemporary quarrying practices at some time in the future
- At that time, Daracon will prepare a Section 75W modification to the Quarry to address the following issues:
 - Utilisation of modern equipment to process materials
 - Re design of the quarry plan to better manage noise from its operations
 - Introduce contemporary environmental management practices
 - Utilise efficient transport systems and noise management for transport of materials
 - Development and utilisation of modern stormwater management systems



What is not proposed:

- Increased quota of material to be processed
- Increased hours of operation
- Further increase to the approved quarry size



Engagement with our Neighbours

- Daracon understands it has a responsibility to their neighbours in the local Ardglen community
- Daracon would like to have a clear & transparent relationship with their neighbours
- Daracon is committed to a process of community engagement



What has been done

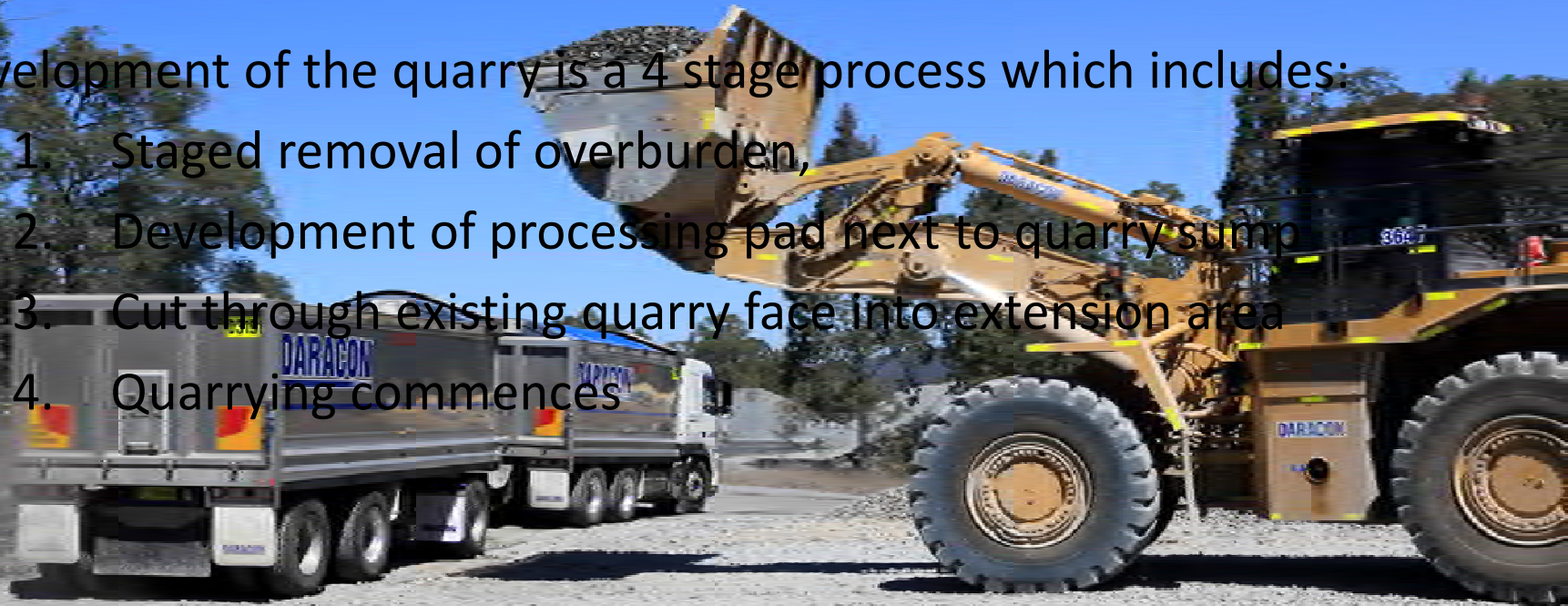
- Undertaken an Environmental Audit
- Undertaken a Development Application Audit
- Undertaken a review of the water management strategy
- Undertaken a Noise Assessment
- Undertaken a Heritage Assessment
- Undertaken a Traffic Assessment
- Undertaken a review of the environmental management
- Undertaken a water management assessment & designed a suitable Stormwater Management System
- Undertaken a Quarry Plan redesign
- Gained a development consent to demolish antiquated plant
- Initiated a new management team with new practices
- Surrendered previous Consents and existing use rights



Quarry Plans

Development of the quarry is a 4 stage process which includes:

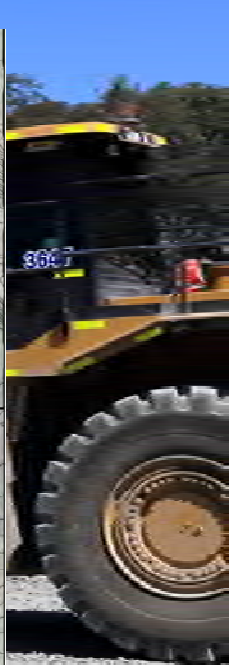
1. Staged removal of overburden,
2. Development of processing pad next to quarry sump
3. Cut through existing quarry face into extension area
4. Quarrying commences



Stages 1 to 3 -
To be explained by Daracon representative



Stormwater Management - To be explained by Daracon representative



Demolition of Existing Structures - To be explained by Daracon representative



Demolition of transformer yard

- Daracon was requested to demolish the existing transformer yard.
- Approval through a Development Consent with Liverpool Plains Shire Council was granted
- Controlled Activity Approval through Office of Water was granted
- Demolition occurred February 2016



Where to from here.

- Continued Community Engagement
- Submission of Section 75W to Department of Planning and await response
- Continuation of existing environmental monitoring
- Primary contact person for Ardglen Quarry is Greg Dressler on 0408 115 661



Questions?




Appendix 4 2016 Community Complaints Register

No complaints received during 2016

Appendix 5 TREES Erosion & Sediment Control Inspection Report



Erosion and Sediment Control Inspection Report – Ardglen Quarry: 1 July 2016

REPORT DATE	11 July 2016	REPORT No.	16
CLIENT	Daracon – Quarries		
PROJECT	Ardglen Quarry		
DATE OF INSPECTION	1 July 2016		
WEATHER CONDITIONS	Overcast, cold, moderate winds.		
ATTENDEES	Daniel Smith, Luke Robinson – Daracon Andrew Littlewood – T.R.E.E.S.P/L		
REPORT TO	Daniel Smith, Luke Robinson, Greg Dressler, Geoff Reeves, Bob Murphy – Daracon		

No.	LOCATION (Chainage/Description)	ISSUE/COMMENT	RECOMMENDATION	PHOTOGRAPH
1.	Quarry – general.	The quarry remains dormant with no extractive activities or processing occurring, however, demolition and stabilisation of the redundant sub-station and associated structures has been completed since the time of the previous inspection.	The quarry areas were inspected with no significant issues noted relating to existing drainage controls, erosion and sediment control, or weed management.	




Erosion and Sediment Control Inspection Report – Ardglan Quarry: 1 July 2016

No.	LOCATION (Chainage/Description)	ISSUE/COMMENT	RECOMMENDATION	PHOTOGRAPH
2.	Weed Control	The inspection around the quarry perimeter and workings confirmed no significant outbreaks of weed have established, and in general terms, weed infestation control is good.	As recommended previously, ensure regular weed control continues with a focus on noxious weeds in perimeter areas.	
3.	Redundant sub-station and associated structures.	As noted above, the demolition and stabilisation of the redundant sub-station and associated structures has been completed since the time of the previous inspection. The area has been cleared, graded and seeded, with early signs of germination evident.	As discussed, continue to monitor the disturbed areas and proceed to re-seed as required with the onset of the warmer growing season.	



Erosion and Sediment Control Inspection Report – Ardglan Quarry: 1 July 2016

No.	LOCATION (Chainage/Description)	ISSUE/COMMENT	RECOMMENDATION	PHOTOGRAPH
4.	Lower drainage line.	An existing weir structure has been reformed as a spill weir with low flow pipe to assess the flow regimes at the lower portion of the drainage line adjacent to the rail access.	As discussed, continue to monitor the weir structure regularly to assess flow volumes and/or any apparent change to water quality.	



Andrew Littlewood – CPESC & Senior Soil Conservationist

T.R.E.E.S. P/L

E: andrew@treespl.com

T: 0417 270 670



Appendix 6 Nesting Box Inspections - Ardglen Quarry

Nesting Box Inspection Ardglen Quarry - Ardglen

Kendall & Kendall Ecological Consultants

October 2016

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Nesting Box Inspection Ardglen Quarry - Ardglen

Prepared for: Daracon

Prepared by: Kendall & Kendall
PO Box 196
WEST KEMPSEY NSW 2440

Tel: (02) 65669280
Email: kendall@midcoast.com.au

October 2016

This short report provides details of the inspection of 27 nesting boxes installed on Lot 187 DP 751028 at the Ardglan Quarry approximately 6km northwest of Murrurundi.

The author of this report is

K. R. Kendall,

Principal Zoologist and Fauna Ecologist,

Kendall & Kendall Ecological Services Pty Ltd,

whose qualification is B.A. (Biological Sciences) Macquarie University

Mr. Murray Kendall assisted in the inspection of the nesting boxes.

A handwritten signature in dark ink, appearing to read 'Keith Kendall', is positioned above the printed name.

Keith Kendall

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1. INTRODUCTION

This short report provides details of the inspection of nesting boxes at Ardglen Quarry on 28th September 2016. The nesting boxes had been installed in April 2012 on Lot 187 DP 751028 an "offset" site identified in the Landscape Management Plan produced as part of the environmental assessment for the extension of quarry activities at the Ardglen Quarry. Ardglen Quarry is approximately 6kms northwest of Murrurundi. It is a requirement of the plan that annual springtime inspections of the nesting boxes are conducted for the life of the quarry.

2. NESTING BOXES INSPECTION

Twenty-seven 27 nest boxes (ie. 9 microbat boxes, 9 Brush-tailed Phascogale boxes and 9 Squirrel Glider boxes) were inspected.

There was no evidence that feral species (including honey-bees) had been using the nesting boxes.

Two sugar gliders were located in a phascogale box. A number of squirrel glider and phascogale boxes contained leaves and/or bark some with a nesting depression indicating use by vertebrate species. It is suspected that the species responsible was the sugar glider.

Two boxes were removed for repair work.

3. RECOMMENDATIONS

No recommendation regarding further action is considered necessary as a result of the inspection.



Keith Kendall

23/11/2015

APPENDIX 1

Box Type	Tree Species	Comment	Easting (GDA)	Northing (GDA)
Phascogale	Box	No evidence of use observed	289197	6486313
Squirrel Glider	Box	Old leaves in box	289143	6486257
Microbat	Box	No evidence of use observed	289138	6486251
Phascogale	Box	Old leaves in box with depression	289166	6486215
Squirrel Glider	Box	Broken hinge removed for repair	289173	6486198
Microbat	Box	No evidence of use observed	289179	6486190
Phascogale	Box	Two sugar gliders in box	289178	6486160
Squirrel Glider	Box	Old leaves in box with depression	289156	6486117
Microbat	Box	No evidence of use observed	289156	6486117
Phascogale	Box	No evidence of use observed	289163	6486074
Squirrel Glider	Box	Shredded bark in box	289033	6486164
Microbat	Box	No evidence of use observed	289030	6486110
Phascogale	Gum	No evidence of use observed	289036	6486160
Squirrel Glider	Box	Ants nest	289020	6486159
Microbat	Box	No evidence of use observed	289020	6486159

Box Type	Tree Species	Comment	Easting (GDA)	Northing (GDA)
Phascogale	Box	Shredded bark in box	289053	6486221
Squirrel Glider	Box	Old leaves in box	289053	6486221
Microbat	Box	No evidence of use observed	289096	6486245
Phascogale	Gum	Old leaves in box	289070	6486263
Squirrel Glider	Box	No evidence of use observed	289055	6486254
Microbat	Box	No evidence of use observed	289046	6486284
Phascogale	Box	No evidence of use observed	289030	6486316
Squirrel Glider	Box	Leaves and bark in box	289034	6486320
Microbat	Box	No evidence of use observed	289064	6486322
Phascogale	Box	Leaves in box	289100	6486328
Squirrel Glider	Box	Old leaves in box	289089	6486322
Microbat	Box	Box removed for repairs	289096	6486306

Appendix 7 Demolition of Structures Approval



LIVERPOOL PLAINS SHIRE COUNCIL

Notice of determination of a development application

issued under *the Environmental Planning and
Assessment Act 1979* section 81 (1) (a)

**development application
number**

31/2015

development application

applicant name

Monteath Powys Pty Ltd

applicant address

PO Box 726
Newcastle NSW 2300

land to be developed: address

LOT: 1 DP: 1001734
15 Warra Street ARDGLEN 2338

owner's name and address

Hunter Industrial Rental Equipment Pty Ltd
c/- PO Box 299
WALLSEND NSW 2287

proposed development

Demolition of Existing Buildings and Plant Equipment

Property Zoning

Zone RU1 Primary Production
Liverpool Plains Local Environmental Plan 2011

Determination

made on (date)

30/07/2015

Determination

☒ consent granted subject to conditions described below –
see Page 3

consent to operate from (date)

30/07/2015

consent to lapse on (date)

29/07/2020

right of appeal

If you are dissatisfied with this decision section 97 of the *Environmental Planning and Assessment Act 1979* gives you the right to appeal to the Land and Environment Court within 12 months after the date on which you receive this notice.

**section 97 of the Environmental Planning and Assessment Act 1979 does not apply to the determination of a development application for State significant development or local designated development that has been the subject of a Commission of Inquiry*

**Review of Determination -
Section 82A *Environmental
Planning and Assessment Act
1979*:**

An applicant in accordance with provisions of s82A of the *Environmental Planning and Assessment Act 1979*, may request the Council where it is the consent authority to review a determination of application. Applicants seeking a review of a determination should discuss the process with Council's Director Environmental Services.

An applicant may request Council to undertake a review of any applicants determination under s82A of the Environmental Planning and Assessment Act 1979 where:

- *the request is made in writing*
- *the appropriate fee is paid*

A determination cannot be reviewed after:

- a) *the time limited for making of an appeal under s97 expires, if no such appeal is made against the determination.*
- b) *after an appeal under s97 against the determination is disposed of by the Court, if such an appeal is made against the determination.*

If you wish to have a review of your determination it is suggested in the first instance an appointment is made with Council's Environmental Services Department on (02) 6746 1755 to further discuss the determination or by contacting Council via email lpesc@lpesc.nsw.gov.au or by post PO Box 152 Quirindi NSW 2343.

Conditions of Consent: Liverpool Plains Shire Council – Schedule 1

TERMS OF CONSENT

General

1. Development shall be completed in strict accordance with the application made, the stamped plans and the terms of this consent. The development shall not be modified except with the written consent of the Council, or to satisfy the Council Consent conditions.
 - Statement of Environmental Effects for Proposed Demolition Works at Ardglen Quarry prepared by Monteath & Powys Pty Ltd dated 23/06/2015 including, inter alia, the following Appendices:
 - Appendix A, Plan of Proposed Demolition of Structures; and
 - Appendix C, Historical Photographic Recording.

If there is any inconsistency between the Conditions of Consent and the documents listed above, the Conditions of Consent shall prevail to the extent of the inconsistency.

Note: Any proposal to modify the terms or conditions of this consent, while still maintaining substantially the same development to that approved, will require the submission of a formal application under Section 96 of the *Environmental Planning and Assessment Act 1979* for Council's consideration. If amendments to the design result in the development not remaining substantially the same as that approved by this consent, a new development application will be required to be submitted to Council.

Reason:

To ensure compliance with the application and plans.

2. The applicant shall ensure that all necessary licences, permits and approvals are obtained and kept up to date as required throughout the life of the development. None of the Conditions of Consent removes the obligation for the applicant to obtain, renew or comply with such licences, permits or approvals.

Reason:

To clarify the terms of Council's approval.

PRIOR TO THE COMMENCEMENT OF WORKS

3. Works approved by this consent shall not commence until a copy of the controlled activity approval issued by the Department of Primary Industries – Water has been provided to Liverpool Plains Shire Council.

Reason:

To ensure compliance with the requirements of the Department of Primary Industries – Water.

4. The water tank to be relocated (identified as part of Appendix A of the approved documentation) is to be re-positioned on-site prior to the commencement of demolition works.

Reason:

To ensure compliance with the application and to clarify the terms of Council's consent.

5. Prior to works commencing, a Waste Management Plan is to be completed by the appointed contractor. Where possible, materials will be salvaged for recycling and reuse. The remaining waste shall be transported to a recognised waste facility. The Waste Management Plan shall also consider the recommendations of the Transformer Oil Leak Assessment dated 8 January 2015. Any contaminated soil must be disposed of at a licensed facility with the area impacted to be validated by a suitably qualified person upon completion.

Reason:

To ensure the environmental impact of the proposed development is minimised where possible.

DURING DEMOLITION

General

6. Any demolition shall be undertaken in accordance with the requirements of AS2601-2001 "The Demolition of Structures" and the requirements of the Workcover Authority of New South Wales including but not limited to:
 - a. Protection of site works and the general public.
 - b. Erection of hoardings where appropriate.
 - c. Asbestos and lead based paints handling and disposal where applicable.

The disposal of demolition materials is to be to an approved licensed waste disposal depot so determined by the NSW Environment Protection Authority.

Reason:

To ensure compliance and safety of workers.

7. Demolition activities associated with the development, including heavy vehicles entering and exiting the site, may only be carried out between 7:00 am and 6:00 pm, Monday to Friday inclusive, and between 8:00 am and 1:00 pm on Saturdays. No work is to be carried out on Sundays and Public Holidays. The following activities may be carried out in association with demolition outside of these hours:
 - any works that do not cause noise emissions to be audible at any nearby residences not located on the premises;
 - the delivery of materials as requested by Police or other authorities for safety reasons; and
 - emergency work to avoid the loss of lives, property and/or to prevent environmental harm.

Any work undertaken outside the specified demolition hours, other than those specified in this condition, must not be undertaken without prior consent of Council.

Reason:

To ensure the amenity of the neighbourhood is maintained.

8. The developer shall ensure all practicable measures are taken to minimise the release of dust into the atmosphere during demolition, and from vehicles transporting material off-site. Additionally, the deliberate burning of the building and/or demolition material is not permitted.

Reason:

To ensure compliance and safety of workers and general public.

9. Toilet facilities are to be provided, at or in the vicinity of the work site on which work involved in the erection or demolition of a building is being carried out, at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.
Each toilet provided:

- a. Must be a standard flushing toilet, and
- b. Must be connected:
 - i. To a public sewer, or
 - ii. If connection to a public sewer is not practicable, to an accredited sewage management facility approved by the Council, or
 - iii. If connection to a public sewer or an accredited sewage management facility is not practicable, to some other sewage management facility approved by the Council.

The provision of toilet facilities in accordance with this clause must be completed before any other work is commenced.

Reason:

To ensure that environmental health standards are met.

10. 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.

Reason:

To ensure that any damage to Council's infrastructure is rectified at the developer's cost, and to ensure that any required alterations to public infrastructure are undertaken to acceptable standards at the developer's cost.

Site Works

11. In the event that Aboriginal archaeological material is discovered during earthmoving/construction, all work on the site is to cease immediately and the National Parks and Wildlife Service (NPWS) must be notified. Works can only commence upon authorisation of the NPWS.

Reason:

To ensure compliance with applicable legislation.

12. The applicant must implement all practicable measures to limit and minimise any harm to the environment that may result from the construction, commissioning or operation of the development. The applicant is responsible for all related earthworks and stockpiles within the entire site not just the building area.

Reason:

To ensure protection of the environment.

13. The applicant shall install run-off and erosion controls to prevent soil erosion, water pollution or the discharge of loose sediment on surrounding land, as follows:

- a. divert uncontaminated run-off around cleared or disturbed areas;
- b. erect a silt fence to prevent debris escaping into drainage systems or waterways. This silt fence shall be placed downslope of any disturbed area or where stockpiles of overburden are placed and is to remain in place until the completion of works;
- c. prevent tracking or sediment by vehicles onto roads;
- d. stockpile topsoil, excavated material, construction and landscaping supplies and debris within the site.

Reason:

To ensure erosion and sediment control on the development site.

UPON COMPLETION OF WORK

14. All contaminated soil identified in the Transformer Oil Leak Assessment dated 8 January 2015 shall be removed from the subject land and disposed of at a licensed facility. Upon completion, the impacted area is to be validated by a suitably qualified person.

Reason:

To ensure the environmental impact of the proposed development is minimised where possible.

15. Upon completion of the demolition approved by this consent, Council shall undertake a final inspection in order to confirm that works have been undertaken in accordance with the determination documentation.

Reason:

To ensure that the completed development complies with Council's requirements.

General Terms of Approval: DPI - Water – Schedule 2

General Terms of Approval

for work requiring a controlled activity approval
under s91 of the *Water Management Act 2000*

Number	Condition	
Site Address:	Ardglen Quarry, 15 Warra Street Ardglen	
DA Number:	DA2015/31	
LGA:	Liverpool Plains Shire Council	
Plans, standards and guidelines		
1	These General Terms of Approval (GTA) only apply to the controlled activities described in the plans and associated documentation relating to DA2015/31 and provided by Council: (i) Site plan, map and/or surveys Any amendments or modifications to the proposed controlled activities may render these GTA invalid. If the proposed controlled activities are amended or modified DPI Water (formerly the NSW Office of Water) must be notified to determine if any variations to these GTA will be required.	
2	Prior to the commencement of any controlled activity (works) on waterfront land, the consent holder must obtain a Controlled Activity Approval (CAA) under the Water Management Act from DPI Water. Waterfront land for the purposes of this DA is land and material in or within 40 metres of the top of the bank or shore of the river identified.	
3	The consent holder must prepare or commission the preparation of: (i) Erosion and Sediment Control Plan	
4	All plans must be prepared by a suitably qualified person and submitted to the NSW Office of Water for approval prior to any controlled activity commencing. The following plans must be prepared in accordance with DPI Water's guidelines located at www.water.nsw.gov.au/ Water-Licensing/Approvals . (i) Vegetation Management Plans (ii) Laying pipes and cables in watercourses (iii) Riparian Corridors (iv) In-stream works (v) Outlet structures (vi) Watercourse crossings	
5	The consent holder must (i) carry out any controlled activity in accordance with approved plans and (ii) construct and/or implement any controlled activity by or under the direct supervision of a suitably qualified professional and (iii) when required, provide a certificate of completion to DPI Water.	
Rehabilitation and maintenance		
6	N/A	
7	The consent holder must reinstate waterfront land affected by the carrying out of any controlled activity in accordance with a plan or design approved by the DPI Water.	
Reporting requirements		
8	N/A	
Security deposits		
9	N/A	
Access-ways		

Number	Condition	
10	N/A	
11	N/A	
Bridge, causeway, culverts, and crossing		
12	N/A	
13	N/A	
Disposal		
14	The consent holder must ensure that no materials or cleared vegetation that may (i) obstruct flow, (ii) wash into the water body, or (iii) cause damage to river banks; are left on waterfront land other than in accordance with a plan approved by DPI Water.	
Drainage and Stormwater		
15	N/A	
16	N/A	
Erosion control		
17	The consent holder must establish all erosion and sediment control works and water diversion structures in accordance with a plan approved by DPI Water. These works and structures must be inspected and maintained throughout the working period and must not be removed until the site has been fully stabilised.	
Excavation		
18	The consent holder must ensure that no excavation is undertaken on waterfront land other than in accordance with a plan approved by DPI Water.	
19	The consent holder must ensure that any excavation does not result in (i) diversion of any river (ii) bed or bank instability or (iii) damage to native vegetation within the area where a controlled activity has been authorised, other than in accordance with a plan approved by DPI Water.	
Maintaining river		
20	The consent holder must ensure that (i) river diversion, realignment or alteration does not result from any controlled activity work and (ii) bank control or protection works maintain the existing river hydraulic and geomorphic functions, and (iii) bed control structures do not result in river degradation other than in accordance with a plan approved by DPI Water.	
21	N/A	
River bed and bank protection		
22	N/A	
23	N/A	
Plans, standards and guidelines		
24	N/A	
25	N/A	
26	N/A	
27	N/A	
Groundwater		
28	N/A	

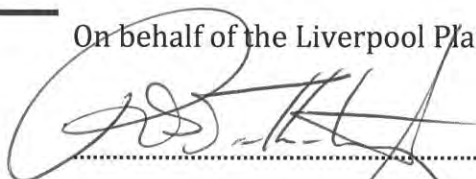
Number	Condition	
END OF CONDITIONS		

Environmental Planning and Assessment Act 1979

In determining this development application, Council has considered all matters under S79C of the Environmental Planning and Assessment Act 1979.

Signed

On behalf of the Liverpool Plains Shire Council

A handwritten signature in black ink, appearing to be 'R S Van Katwyk', written over a horizontal dotted line.

**R S Van Katwyk
ACTING GENERAL MANAGER**

Date

30/07/2015