



BUTTAI FACILITY



ANNUAL ENVIRONMENTAL MANAGEMENT REPORT (AEMR)

2023

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1. INTRODUCTION

1.1 Scope

This report summarises the various activities and compliance tasks that occurred at the Buttai Facility, which comprises the Quarrying and Resource Recovery Operations during the period 1st January to 31st December 2023.

This report has also been prepared by Daracon in accordance with the Quarry Project Approval summary management plan section 7.1 “Annual Report Requirements of Buttai Quarry” and the Resource Recovery Facility (RRF - Project Approval 8/2019/432/1) Section 52 to record the activities and environmental monitoring undertaken within and surrounding the Buttai Facility during the period 1st January to 31st December 2023.

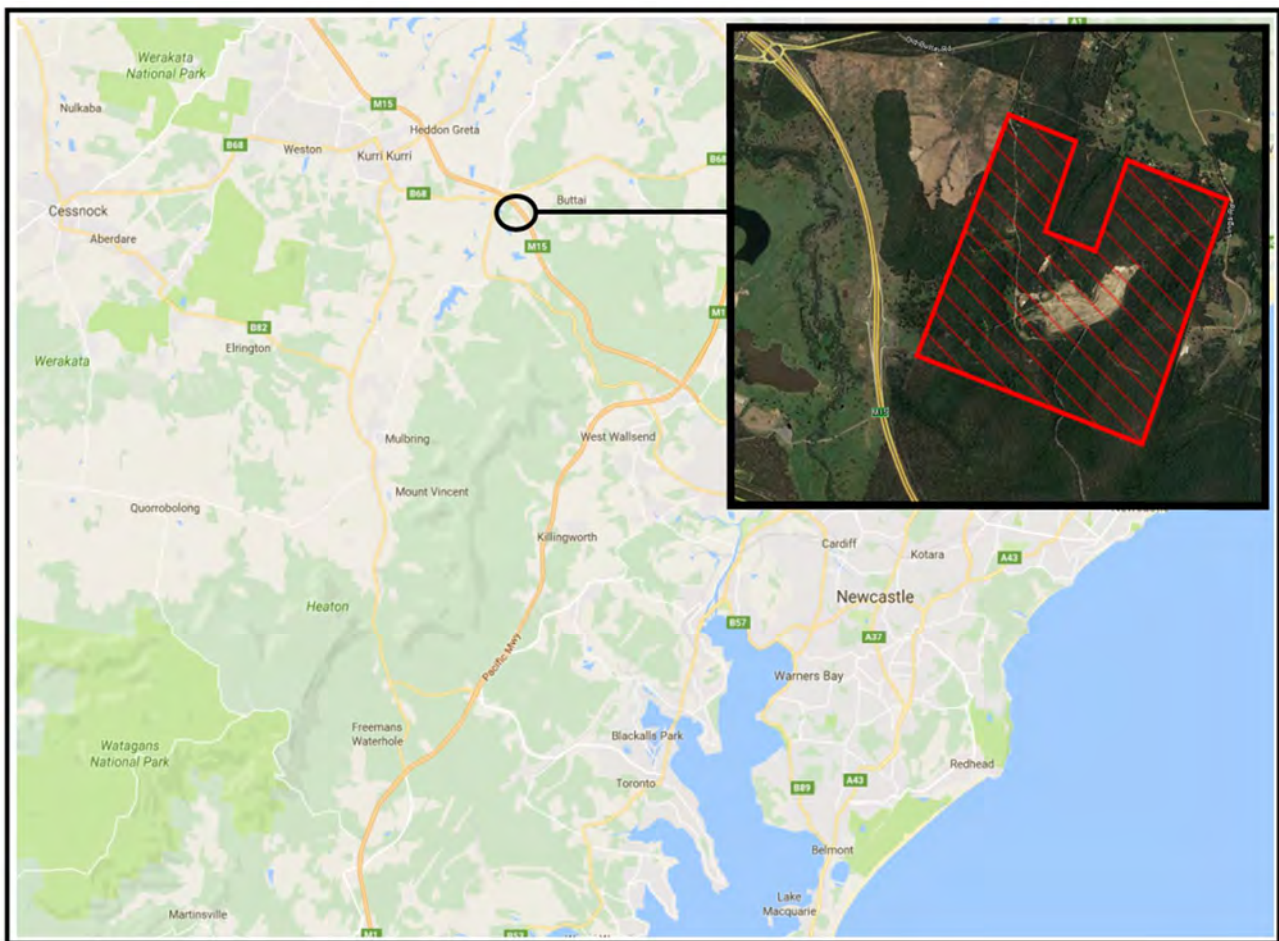


Figure 1: Quarry Location

This document provides an overview of activities and environmental monitoring that occurred within the reporting period and also activities and environmental monitoring planned for 2024. This Annual Environmental Management Report (AEMR) contains the following:

- A description of activities that were carried out in 2023;;
- A review of the environmental monitoring results that were obtained during 2023;
- Results of the Environmental Inspections (Rubicon – formerly TREES and internal) completed during 2023;
- A description of potential measures that may be implemented throughout 2024 to improve the environmental performance of the Quarry;

1.2 Standards and Performance Measures

The owner and operator of Buttai Quarry, Daracon Quarries (Trading as Buttai Gravel Pty Ltd) operates the Quarry site in accordance with conditions of consent and licences listed in **Table 1**.

Table 1: Buttai Facility - Consents and Licences

Approval/Licence	Issue Date
Quarry Project Approval 10286	1997
Modification of Quarry Approval	2008
Modification of Quarry Approval	2008
Modification of Quarry Approval	2010
Modification of Quarry Approval	2015
RRF Project Approval 8/2019/432/1	2021
Environmental Protection License 12829	2022

Relevant conditions with Project Approval 10286 (1997) and associated modifications which nominate specific environmental criteria are as follows providing complete records of all measurements.

- *Project Approval 10286 (1997) Schedule 7 Condition 1 & 2: Operating Hours, Blasting*
- *Project Approval 10286 (1997) Schedule 17: Noise*
- *Project Approval 10286 (1997) Schedule 29: Air Quality*
- *Project Approval 10286 (1997) Schedule 35: Water Quality*
- *Project Approval 10286 (1997) Schedule 39: Blasting*
- *Project Approval 10286 (1997) Schedule 43: Rehabilitation*
- *Project Approval 10286 (1997) Schedule 65: Waste and Effluent*

In addition to the specific environmental criteria, the following conditions within Project Approval 10286 specifically request further information be included in each AEMR.

- *Section 6.12.2 of Buttai Quarry Management Plan: Product Transport*

Relevant conditions with the RRF Project Approval 8/2019/432/1 (2021) nominate specific environmental and operational reporting requirements that are still being developed. As the RRF is not yet operational, these have not yet been fully implemented.

1.3 Site Management and Responsibilities

Mr Paul Walker continues to undertake the role of overall Daracon Quarries Manager and Mr Daniel Murrell is now the Quarry Supervisor. Mr Luke Robinson (Systems Manager) continues to provide direction and assistance to all staff regarding the various site safety, environmental and quality systems. Other companies involved with quarry related documentation and monitoring include:

- VGT Environmental Compliance Solutions and Laboratories;
- Spectrum Acoustics;
- Rubicon Enviro Pty Ltd (external environmental consultant - formerly TREES);

1.4 Document Preparation

The following information and data for this report has been drawn from documents commissioned or held by Daracon within the various Buttai Quarry Environmental Monitoring Folders (this document was prepared by Mr Luke Robinson).

2. OPERATIONS DURING THE REPORTING PERIOD

2.1 Introduction

During 2023, the Quarry was in an operational phase. **Table 2** summarises the activities that occurred at Buttai Quarry during 2023.

Table 2: Summary of operations during the reporting period

January 2023	Production and sale of various road base and construction materials;
February 2023	Production and sale of various road base and construction materials; Noise monitoring;

March 2023	Production and sale of various road base and construction materials; Daracon site environmental audit and report;
April 2023	Production and sale of various road base and construction materials; Buttai Quarry CCC meeting;
May 2023	Production and sale of various road base and construction materials; Noise monitoring;
June 2023	Production and sale of various road base and construction materials; Rubicon environmental inspection and report; Temporary increase to 100 laden trucks per day commenced;
July 2023	Production and sale of various road base and construction materials;
August 2023	Production and sale of various road base and construction materials; Noise monitoring;
September 2023	Production and sale of various road base and construction materials; Buttai Quarry CCC extraordinary meeting; Daracon site environmental audit and report;
October 2023	Production and sale of various road base and construction materials;
November 2023	Production and sale of various road base and construction materials; Buttai Quarry CCC meeting and site visit; Noise monitoring;
December 2023	Production and sale of various road base and construction materials; Daracon site environmental audit and report;

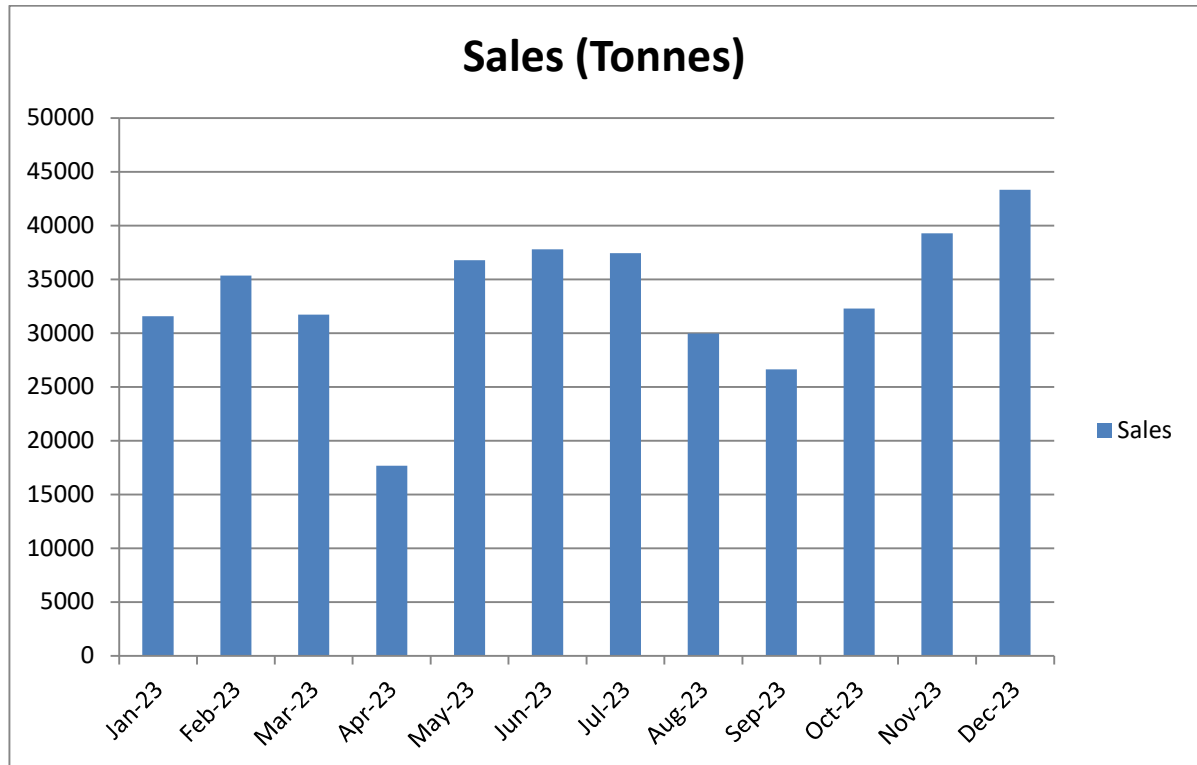
2.2 Extraction and Clearing Operations

During 2023 there was a total of **399,732** tonnes of material sold to internal and external clients for construction purposes.

During 2023, the quarry footprint and extent of clearing continued to progress towards the northern part of lot 76 as shown in the aerial images shown in Appendix 5. For the additional clearing activities undertaken, the Daracon "tree clearing protocol" continues to be utilised, which has so far revealed no impact to the local fauna.

Table 3 presents the monthly sales from Buttai Quarry during 2023 reporting period.

Table 3: Buttai Quarry Sales (tonnes)



2.3 Overburden and Soil Management

Overburden is the material that sits above the rock reserve and is typically made up of topsoil, clay and other non-rock material. For Buttai quarry, the overburden is separated and stockpiled into specific areas at the top of the quarry. The overburden and clay is processed and sold for various purposes within the civil construction industry as required. Soil and water is managed as per Daracon environmental management plans and procedures. Please refer to Section 2.7 Water Management.

2.4 Processing Operations

Processing of material occurs in two stages at Buttai Quarry;

Stage 1 - Drilling and Blasting

Drilling and blasting are critical aspects of the quarrying process. Daracon engage an appropriately qualified subcontractor who is specifically trained in blasting to undertake this activity. The blasting contractor drills holes into the rock, place explosives and stemming material inside, install and operate the blast monitors and then detonate the shot to provide the smallest release of energy necessary to achieve the desired result.

Stage 2 – Material Processing and Stockpiling

The material generated from the drill and blast operation is then processed through a crushing plant. The specialised quarry equipment used to crush the materials will depend on the size of the rock being crushed and the final product required (size, shape and various other properties). The crushed material is then separated by the use of screens and stored in product stockpiles, such as road base, fill or specific client materials.

2.5 Waste Management

The following non-production wastes were produced at the Quarry during the reporting period:

- General Waste – The site contains an onsite waste bin which is serviced and appropriately disposed regularly by Cleanaway;
- Scrap Steel – The site contains a scrap steel bin which is sent to a licensed recycling facility as required;
- Recyclables – The site recycles and / reuses materials where practical (this obviously excludes any materials proposed for the Resource Recovery facility currently in progress);
- Waste Oil, Oil Filters and Grease – All grease and filters are removed from site by service fitters and taken to licensed collection points;
- Batteries – Batteries are removed by field service fitters who take batteries to licensed collection points;

2.6 Site Infrastructure And Services

No changes were made to the main office, lunchroom and overall site facilities during the reporting period. No additional infrastructure or services were added during the reporting period.

Additional infrastructure will be required for the Resource Recovery Facility (RRF), but this is currently in the planning phase with the expected installation dates likely to be during 2024.

2.7 Water Management

The site water is managed by utilising the various Daracon site procedures. The quarry currently has 5 dams to manage water runoff off during rain events. The water collected in the dams is then re-used for dust control (via a site watercart) or for production purposes as required. The various Daracon water management procedures are contained within the Integrated Facility Management Plan (IFMP) for the site as whole. These records are maintained on site and within the Daracon Management System.

2.8 Bushfire Management

Lantana removal and weed eradication from the quarry site occurred intermittently on a campaign basis during the reporting period.

Ongoing fire trail maintenance occurred during the reporting period along boundary lines whilst the quarry supervisor continues to liaise with the local RFS representatives and community members regarding potential bushfire mitigation and general access matters for the quarry and surrounding areas as required.

2.9 Hazardous Materials Management

Hazardous materials within the quarry site are appropriately managed with diesel fuel, oil and greases stored in above ground bunded storage containers. Machinery is fuelled daily via a mobile fuel truck which minimises the quantity of fuel stored on site.

Aerosols and weed poison are stored within the designated hazardous materials cabinets within the bunded storage areas.

2.10 Product Transportation

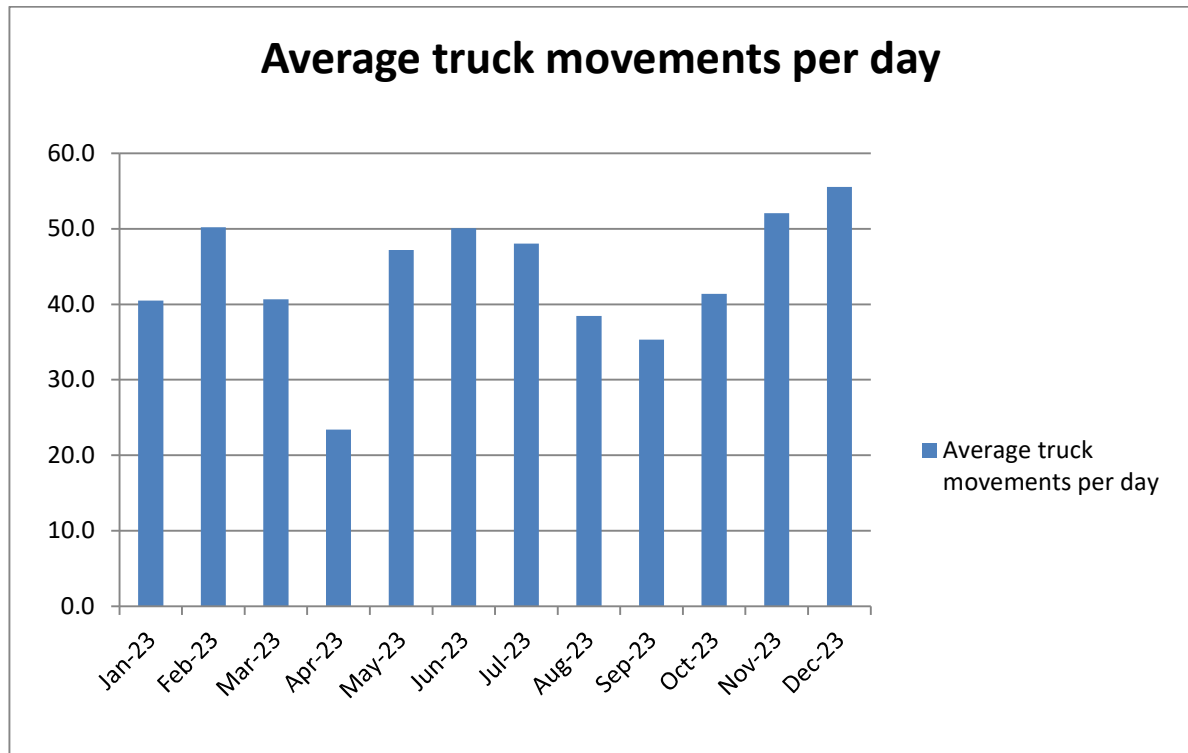
During this reporting period the quarry was operational, with all materials exported exclusively by road transport from the quarry operation. No material was received or exported via the RRF during the reporting period.

In May 2023, we received approval from Cessnock City Council for the 'Temporary 100 laden trucks per day Development Application'. This temporary DA was requested by us to assist with the large quantity of demand for local construction materials in the local region. The temporary DA officially commenced on the 7th June 2023.

As part of the approval of the temporary DA, we provide three monthly summaries of the operations whilst the temporary DA is operational and copies of the most recent reports are included in Appendix 7.

Table 4 presents the average daily truck movements from Buttai Quarry during 2023 reporting period.

Table 4: Buttai Quarry Truck movements per day



2.11 Rehabilitation

Daracon continued to inspect and maintain the rehabilitation work completed on benches 2 and 3 as well as the additional areas on site. The rehabilitation work is progressing well as shown in the various inspections, reports and images attached.

A rehabilitation report was prepared by Umwelt which is included in Appendix 4 of this document. The following information is provided as an update against the approved "Rehabilitation Plan":

- Rehabilitation is ongoing to the exposed benches along the quarry face of Lots 75 and 76 including permanent bunds and other available areas surrounding the operational quarry pit;
- The rehabilitated areas are inspected and maintained with progress reported regularly;
- Blasting of the various quarry finished faces are being planned, shaped and managed in accordance with the approved 'Rehabilitation Plan';
- The majority of the quarry floor located within Lots 75 and 76 is used primarily for operational purposes (including the RRF site) and has not been rehabilitated as yet;
- Rehabilitation of the eastern section of lot 76 is ongoing and progressing well;
- Rehabilitation of the western section of lot 76 is ongoing and progressing well;
- The rehabilitation planting that's occurred along benches 2 and 3 are progressing satisfactorily however their progress is limited due mostly to their location and significant exposure to the unfavourable meteorological conditions as shown in Figure 2 which shows the *Combined Drought Indicator* for the Stockrington Parish, Hunter Region NSW (DPI 2024). This shows that rainfall was low after July 2023 and drought conditions re-emerged towards the end of 2023;
- Additional measures to assist the progress of rehabilitation in bench 2 and 3 will be installed during 2024 as recommended in the Umwelt report. This includes the option to install 'sticky hop bush' amongst other things as mentioned in the Umwelt report included in Appendix 4;
- Weed control is an ongoing task that occurs regularly on site;

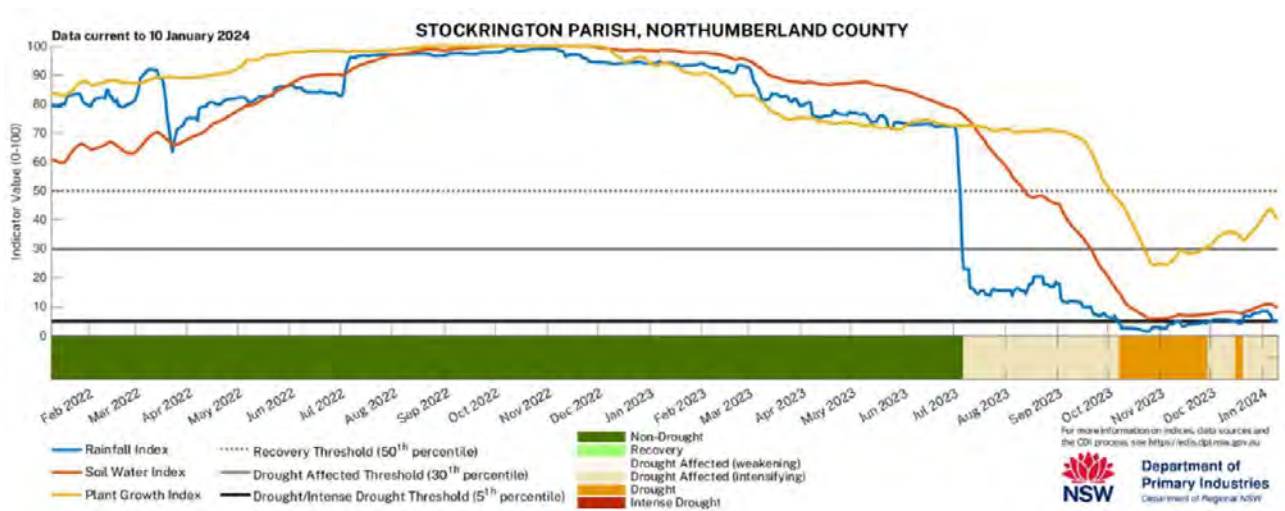


Figure 2: Combined Drought Indicator for the Stockrington Parish, Hunter Region NSW (DPI 2024)

3. COMMUNITY RELATIONS

3.1 Surrounding Communities

Table 5 indicates the residences surrounding the quarry.

Table 5: Adjacent residences

Adjacent Residences
45 Old Buttai Road, Buttai NSW 2323
191 Lings Road, Buttai, NSW 2323
212 Lings Road, Buttai, NSW 2323
160 Lings Road, Buttai, NSW 2323
268 Lings Road, Buttai, NSW 2323
269 Lings Road, Buttai, NSW 2323
Buttai Creek, Buttai, NSW 2323
281 Lings Road, Buttai, NSW 2323
251 Browns Road, Black Hill, NSW 2323
225 Browns Road, Black Hill, NSW 2323
25 Old Buttai Road, Buttai, NSW 2323

3.2 Community Consultative Committee Meetings

All Community Consultative Committee (CCC) meetings were held face to face during 2023. Additionally, this also permitted the annual site visit to be completed in November 2023.

The Buttai Quarry CCC held three meetings during 2023 with the first on in April 2023, the second in September 2023 and the third in November 2023. The April and November 2023 meetings were the ordinary 6-monthly CCC meetings with the September 2023 being an extra-ordinary meeting. The meeting minutes are attached in Appendix 2. All meetings were well attended and effective in communicating the relevant information.

3.3 Environmental Complaints

The only complaint received during the 2023 reporting period was associated with the inappropriate access to the site by a Cleanaway truck by using Lings Rd. This was promptly addressed.

3.4 Community Involvement

As mentioned above, we held three CCC meetings during 2023. The proposed Buttai Resource Recovery Facility (RRF), Old Buttai Rd upgrade and associated matters were discussed at length

during the CCC meetings held during 2023. The meeting minutes associated with all three CCC meetings are attached in Appendix 2. A number of general enquiries from the community were also received during the reporting period, with all being addressed promptly.

4. ENVIRONMENTAL MONITORING

4.1 Water Quality

4.1.1 Introduction

Buttai Quarry operates under an approved Site Water Management Plan. The purpose of this plan is to ensure that Buttai Quarry does not pollute any waters, in accordance with Environmental Protection Licence No. 12829.

4.1.2 Conclusion

During the reporting period, no water was discharged from site.

4.2 Noise and Blasting

4.2.1 Introduction

Buttai Quarry operates under approved Noise Monitoring and Blast Monitoring programs. These programs outline the measures which mitigate the environmental effects of noise and blasting on our nearest neighbours. It proposes noise monitoring programs to assess and report the levels of likely impact so as to comply with the Project Approval. It also provides a mechanism whereby any noise or blasting complaints can be managed effectively.

4.2.2 Blast Criteria

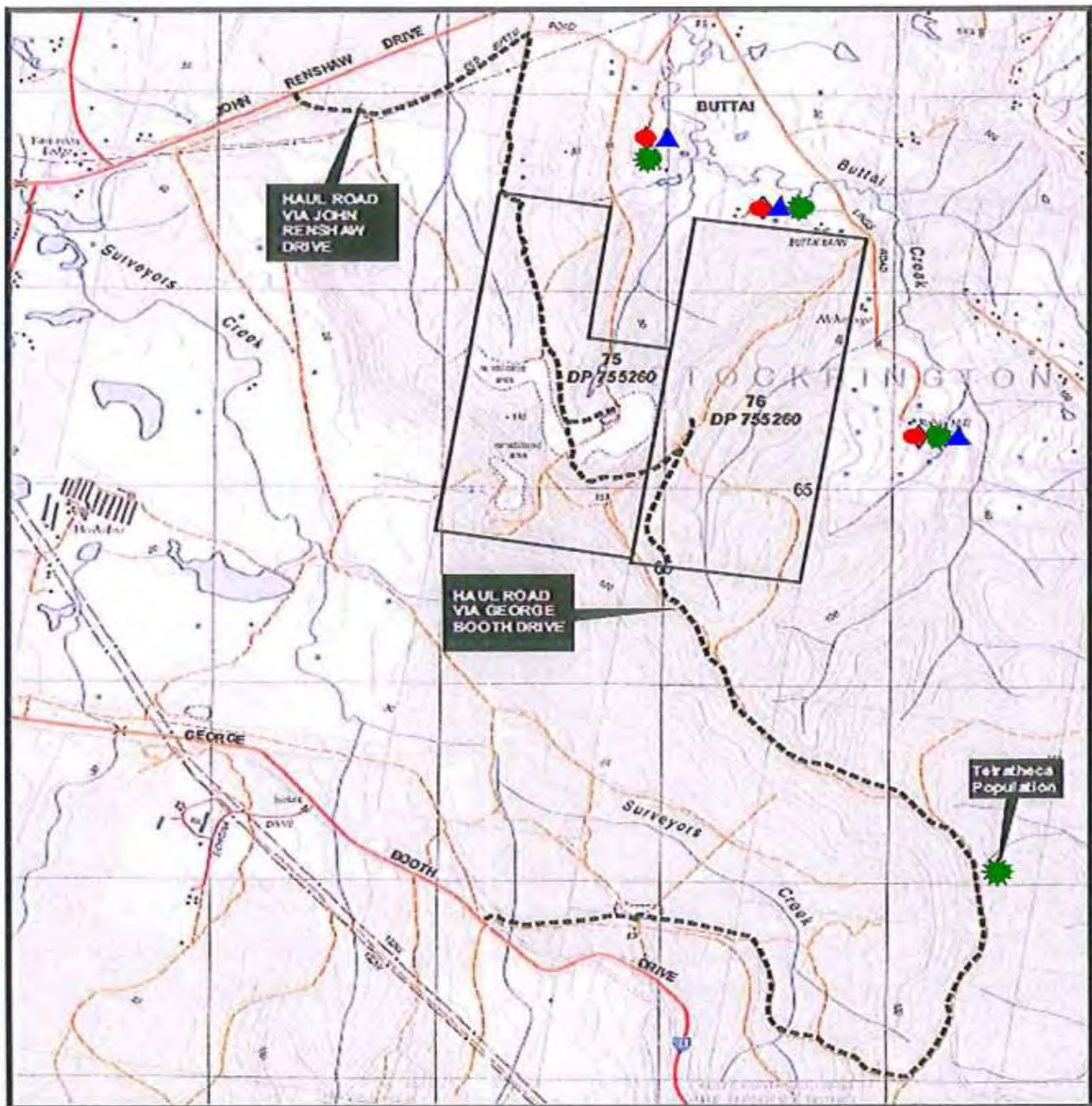
Table 6 shows the blasting criteria to be met.

Table 6: Blasting Criteria

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

4.2.3 Blast Monitoring Locations

The Blast Monitoring program requires monitoring to take place at specified locations as shown in **Figure 3**.



Legend

- Blast monitor location
- Air monitor location
- ▲ Noise monitor location

Figure 3: Blast, air quality and noise monitoring locations

4.2.4 Blasting Monitoring Results

During the reporting period there were a total of 9 blasts undertaken at Buttai Quarry. The monitoring results are shown below in Table 7.

4.2.5 Analysis of Blast Results

The blast results in **table 7** indicate that all blast monitoring results are below the specified criteria as described in section 4.2.2.

Table 7: Blast Monitoring Results

Date	Time	Blast No.	Norma Brookes		Lings Rd		Buttai Barn	
			PPV mm/s	O/pressure dBL	PPV mm/s	O/pressure dBL	PPV mm/s	O/pressure dBL
18/01/2023	13:39	P_109	0.55	106.1	No trigger	No trigger	No trigger	No trigger
20/02/2023	14.:03	P_110	No trigger	No trigger	0.51	106.1	0.46	104.7
3/04/2023	11:46	P_111	0.59	107.9	0.49	102.4	No trigger	No trigger
7/06/2023	12:47	P_112	0.99	107	0.82	110.8	0.52	105.7
10/08/2023	12:28	P_113	1.04	111.2	0.62	108.7	No trigger	No trigger
29/09/2023	11:25	P_114	No trigger	No trigger	No trigger	No trigger	0.56	108.8
27/10/2023	12:06	P_115	No trigger	No trigger	0.63	102.5	0.59	98.5
24/11/2023	12:35	P_116	No trigger	No trigger	0.61	113.6	No trigger	No trigger
21/12/2023	12:11	P_117	No trigger	No trigger	0.69	104.2	0.71	112.1

4.2.6 Noise Criteria

To meet the relevant noise criteria applicable to quarry operations as detailed in conditions of consent (under neutral conditions when measures within a radius of 30 metres);

- LA 10 (15 minute) of 38 dBA (Daytime)
- LA 10 (15 minute) of 32 dBA (Night time)
- Laeq (1 hour) 50 dBA – noise of traffic associated with the quarry operations

The Noise Monitoring Program calls for quarterly attended noise monitoring to take place at specified noise monitoring locations as shown in **Figure 4**.

4.2.7 Noise Monitoring Locations

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

Location 1: Brooks, 45 Old Buttai Road

Location 2: Maddison (Buttai Barn), 160 Lings Road

Location 3: Bishop, 281 Lings Road

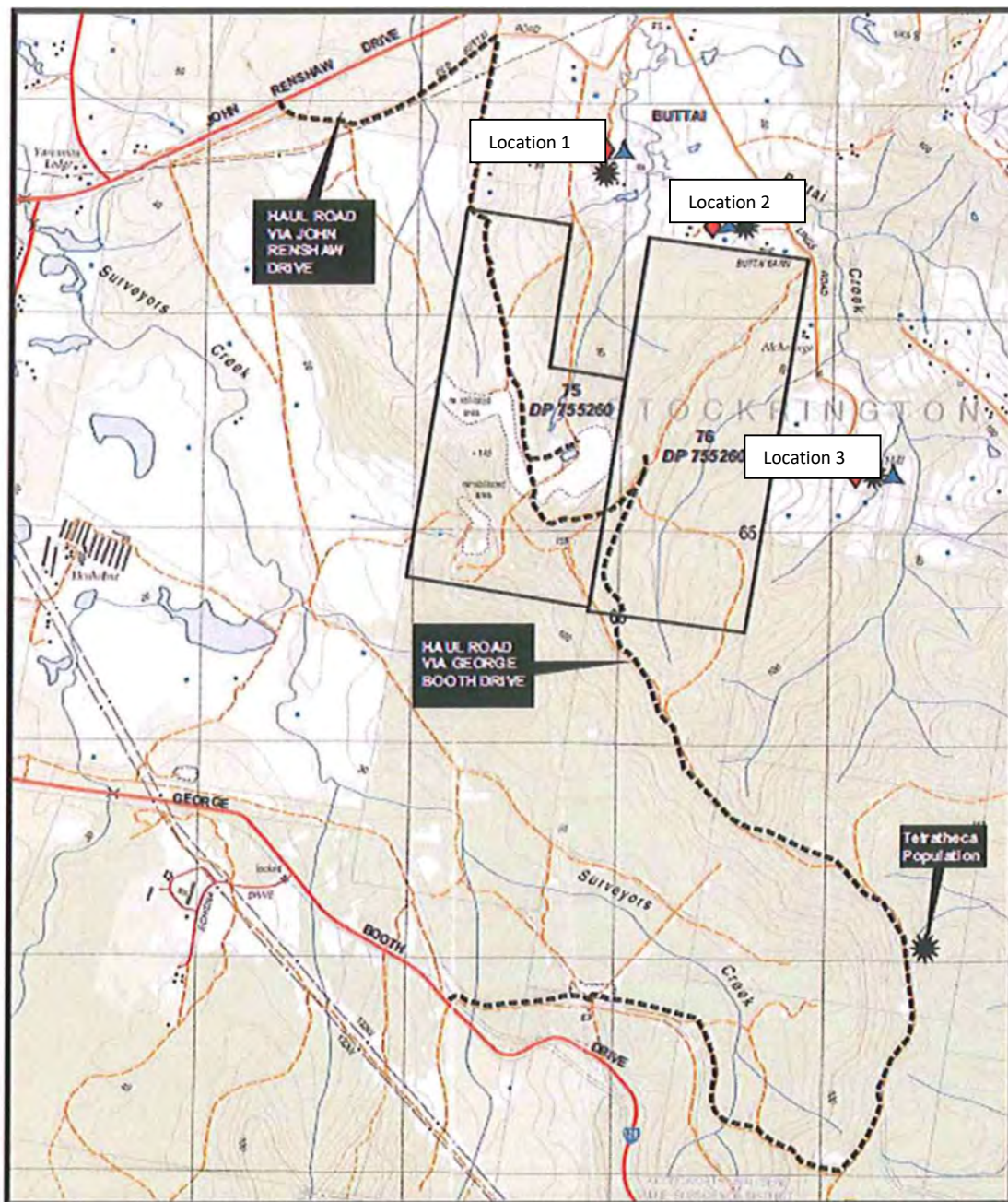


Figure 4: Noise Monitoring Locations

4.2.8 Noise Monitoring Results

During the reporting period there were a total of 4 noise monitoring assessments undertaken at Buttai Quarry. The results are shown below in **table 8**.

4.2.9 Analysis of Noise Results

The noise results in **table 8** indicate that all noise monitoring results are below the specified criteria as described in section 4.2.6.

Table 8: Buttai Quarry Noise Monitoring

Buttai Quarry (BQ) Noise Monitoring

	Location	Time	dB(A)	Wind Speed and Direction	Identified Noise Sources
27-Feb-23	1	10:55 am	48	1.0 m/s SE	Birds & insects (48), plant noise ¹ (33), BQ occasionally audible . Note 1 - not quarry related (see text in report)
	2	11:40 am	41	1.0 m/s SE	Birds & insects (39), birds (36), BQ inaudible
	3	11:17 am	42	1.0 m/s SE	Birds & insects (42), plant noise ¹ (25), BQ occasionally audible
11-May-23	1	12:02 pm	41	1.5 m/s N	Birds (40), traffic (34), BQ inaudible
	2	11:12 am	42	1.0 m/s N	Birds (40), construction noise (35), traffic (32), BQ inaudible
	3	10:52 am	40	1.0 m/s NE	Birds & frogs (40), traffic (30), BQ (28)
17-Aug-23	1	11:32 am	39	2.5 m/s N	Birds (36), traffic (36), BQ (24)
	2	10:50 am	36	2.5 m/s N	Birds (33), traffic (32), BQ (22)
	3	11:10 am	36	1.9 m/s N	Birds & frogs (35), BQ (27)
22-Nov-23	1	11:30 am	41	3.5 m/s SW	Birds & insects (40), traffic (34), BQ inaudible (<20)
	2	11:50 am	38	2.5 m/s SW	Birds & insects (36), traffic (33), BQ inaudible (<20)
	3	12:15 am	39	3.0 m/s SW	Birds & insects (39), traffic (26), BQ inaudible (<20)

4.3 Air Quality

4.3.1 Introduction

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

4.3.2 Air Quality Monitoring Locations and Frequency

The current air quality monitoring network consists of five dust deposition gauges, (see Figure 5).

The location of the air quality monitoring equipment (primarily to the North-East and East of the Quarry) was chosen due to the location of the adjacent private residences.

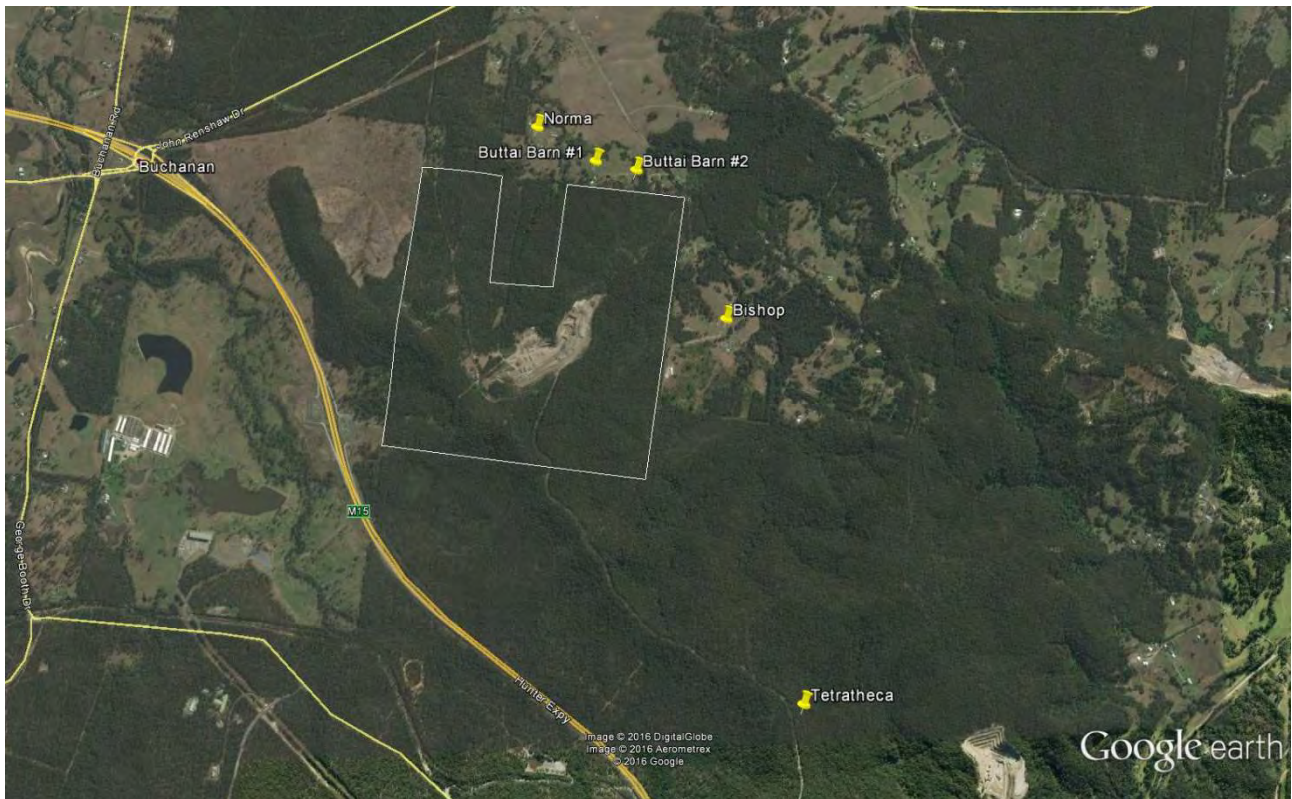


Figure 5: Air Quality Monitoring

4.3.3 Air Quality Criteria

The air quality criteria for the quarry is provided in the below table.

Table 9: Air Quality Criteria

Parameter	Frequency	Locations	Limit/Guideline	Sampling Method
Deposited dust	Monthly.	DG-1 located at Tetratheca DG-2 located at Norma DG-3 located at Buttai Barn DG-4 located at Bishop DG-5 located at Buttai Barn #2	Deposition Rate* Maximum total deposited dust level: 4 g/m ² .month. (Annual Average)	AM-19 AS3580.10.1 – 2003
Visible air pollution	Weekly. In response to any visible emissions complaint.	Weekly site inspection. At the location of any reported emission.	Daracon 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	No required sampling methodology. Actions required if visual impact is suspected or confirmed is located in the quarry management plan.

4.3.4 Air Quality Monitoring Results

The following information presents the results and a breakdown of the deposited dust monitoring program.

Table 10: Dust Deposition Gauge Results

		D1 - Tetratheca	D2 – Norma	D3 - Buttai Barn	D4 - Bishop	D5 - Buttai Barn #2
16/12/22	Insoluble Solids	0.8	1.1	0.5	0.8	0.5
to	Ash*	0.1	0.7	0.2	0.3	0.2
13/01/23	Combustible Matter**	0.7	0.4	0.3	0.5	0.3
13/01/23	Insoluble Solids	5.7	1.5	0.8	0.7	0.7
to	Ash*	4.3	0.8	0.3	0.3	0.3
10/02/23	Combustible Matter**	1.4	0.7	0.5	0.4	0.4
10/02/23	Insoluble Solids	1.3	1.2	0.4	0.3	0.7
to	Ash*	0.4	0.4	0.2	0.1	0.3
10/03/23	Combustible Matter**	0.9	0.8	0.2	0.2	0.4
10/03/23	Insoluble Solids	1.1	1.2	0.6	3.9	3.4
to	Ash*	0.5	0.7	0.4	2.8	2.6
11/04/23	Combustible Matter**	0.6	0.5	0.2	1.1	0.8
11/04/23	Insoluble Solids	3.1	5	0.6	1.1	1.7
to	Ash*	2.3	4.2	0.3	0.6	1.1
09/05/23	Combustible Matter**	0.8	0.8	0.3	0.5	0.6
09/05/23	Insoluble Solids	0.8	0.8	1.3	1.3	0.7
to	Ash*	0.6	0.5	0.7	1	0.4
06/06/23	Combustible Matter**	0.2	0.3	0.6	0.3	0.3
06/06/23	Insoluble Solids	1.1	0.5	2.2	1.3	0.6
to	Ash*	0.8	0.4	1.7	0.7	0.3
04/07/23	Combustible Matter**	0.3	0.1	0.5	0.6	0.3
04/07/23	Insoluble Solids	0.6	0.4	5.6	0.7	0.3
to	Ash*	0.2	0.3	3.6	0.6	0.2
01/08/23	Combustible Matter**	0.4	0.1	2	0.1	0.1
01/08/23	Insoluble Solids	0.6	0.8	2	0.9	0.5
to	Ash*	0.1	0.3	1.5	0.4	0.2
29/08/23	Combustible Matter**	0.5	0.5	0.5	0.5	0.3
29/08/23	Insoluble Solids	0.7	1.4	1.7	0.9	0.7
to	Ash*	0.3	1.1	0.8	0.5	0.4
26/09/23	Combustible Matter**	0.4	0.3	0.9	0.4	0.3
26/09/23	Insoluble Solids	0.8	0.9	1.1	0.9	0.9
to	Ash*	0.3	0.5	0.8	0.4	0.5
24/10/23	Combustible Matter**	0.5	0.4	0.3	0.5	0.4
24/10/23	Insoluble Solids	0.3	1	0.6	0.7	0.5
to	Ash*	0.2	0.7	0.4	0.4	0.3
21/11/23	Combustible Matter**	0.1	0.3	0.2	0.3	0.2
21/11/23	Insoluble Solids	1.6	0.3	0.6	0.4	0.7
to	Ash*	0.7	0.2	0.2	0.2	0.2
19/12/23	Combustible Matter**	0.9	0.1	0.4	0.2	0.5

Definition

Insoluble solids - This is the matter that does not dissolve in water and is the total of Ash and Combustible matter in the gauge.

Ash* - This is the matter that remains after the sample has been combusted in the laboratory (non organic).

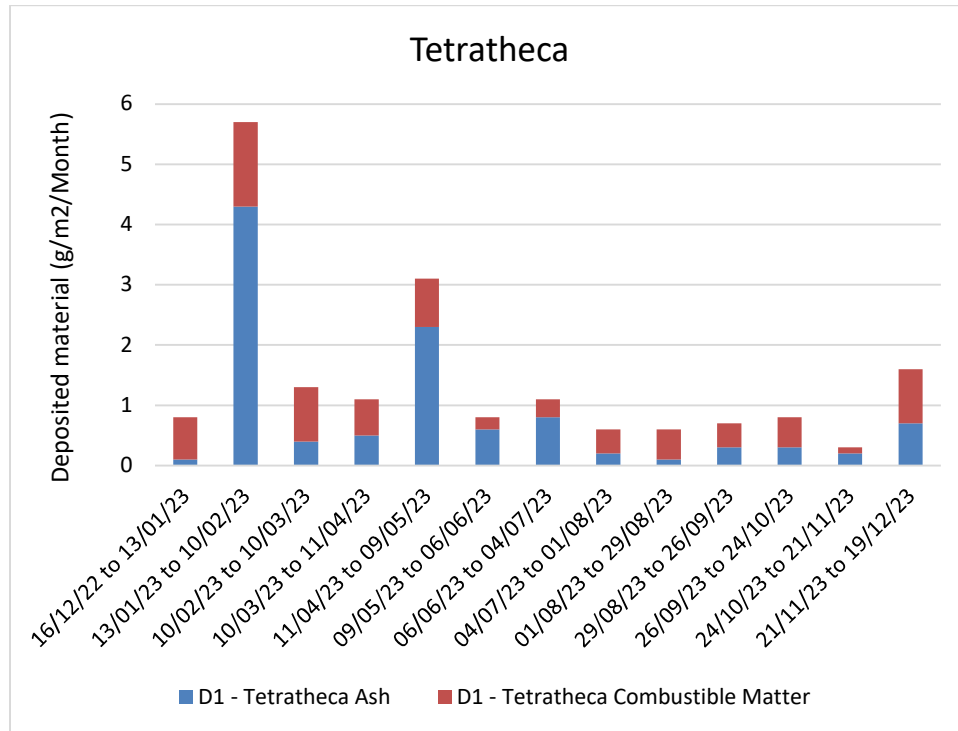
Combustible Matter** - This is the material making up the insoluble solids that has been combusted and is not attributable to quarrying as it is primarily organic matter.

Table 11: Summary of Dust Deposition Gauge Results

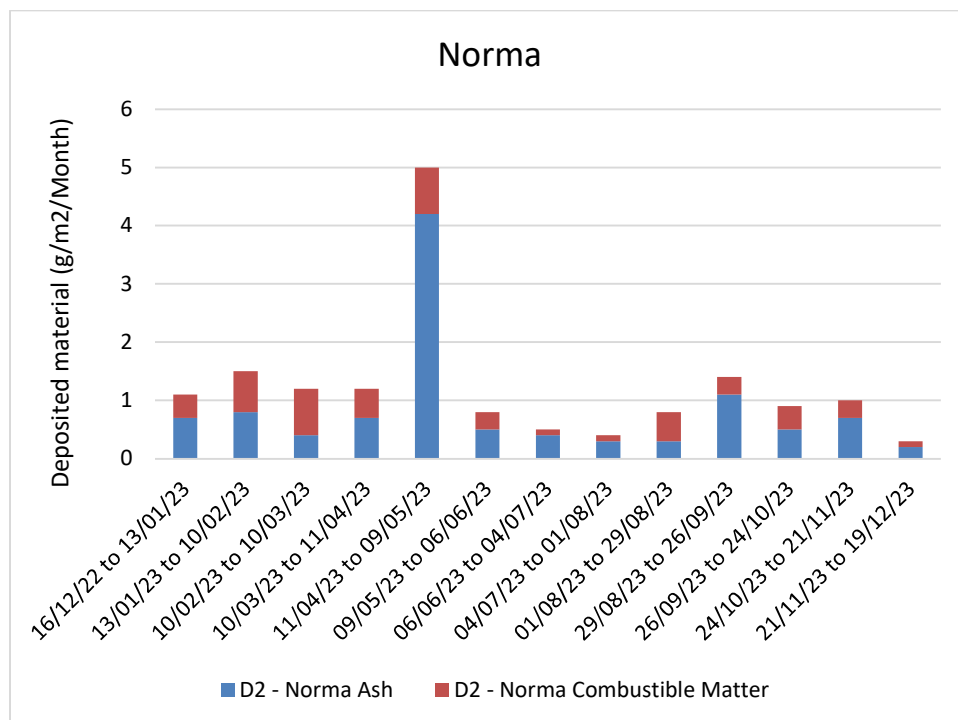
	D1 - Tetratheca	D2 - Norma	D3 - Buttai Barn	D4 - Bishop	D5 - Buttai Barn #2
16/12/22 to 13/01/23	0.8	1.1	0.5	0.8	0.5
13/01/23 to 10/02/23	5.7	1.5	0.8	0.7	0.7
10/02/23 to 10/03/23	1.3	1.2	0.4	0.3	0.7
10/03/23 to 11/04/23	1.1	1.2	0.6	3.9	3.4
11/04/23 to 09/05/23	3.1	5	0.6	1.1	1.7
09/05/23 to 06/06/23	0.8	0.8	1.3	1.3	0.7
06/06/23 to 04/07/23	1.1	0.5	2.2	1.3	0.6
04/07/23 to 01/08/23	0.6	0.4	5.6	0.7	0.3
01/08/23 to 29/08/23	0.6	0.8	2	0.9	0.5
29/08/23 to 26/09/23	0.7	1.4	1.7	0.9	0.7
26/09/23 to 24/10/23	0.8	0.9	1.1	0.9	0.9
24/10/23 to 21/11/23	0.3	1	0.6	0.7	0.5
21/11/23 to 19/12/23	1.6	0.3	0.6	0.4	0.7
Annual Average	1.42	1.24	1.38	1.07	0.92

4.3.5 Depositional Dust Gauge Graphs

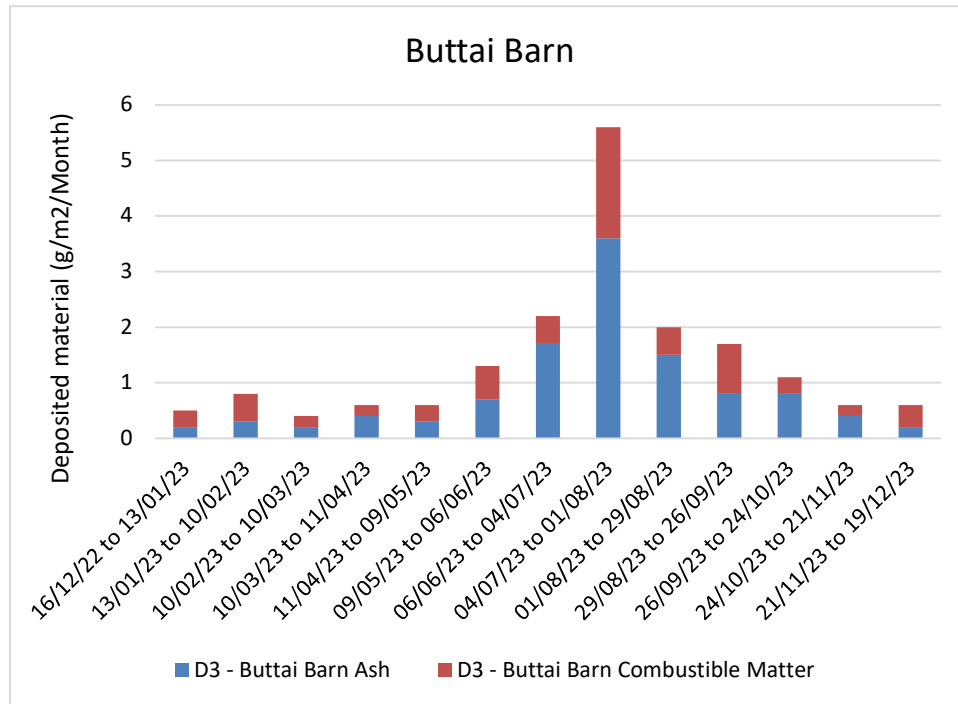
4.3.5.1 Tetratheca



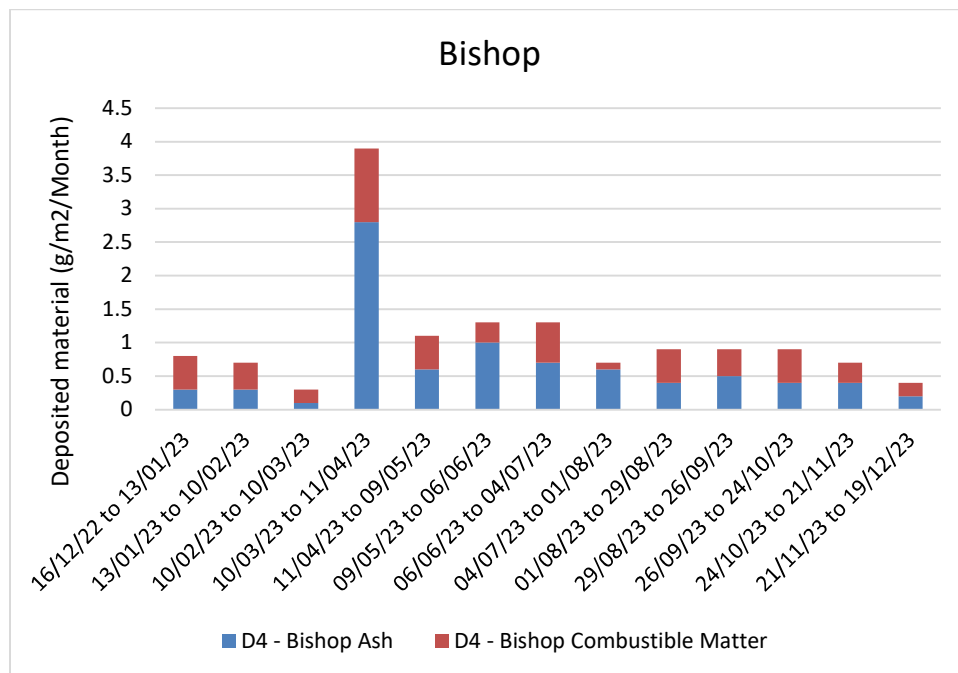
4.3.5.2 Norma



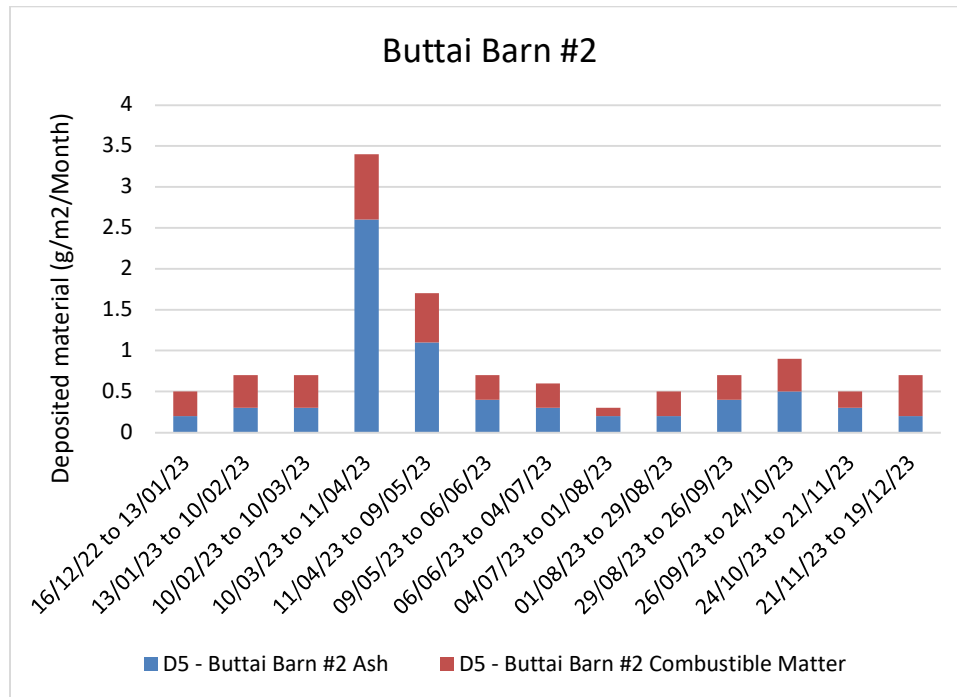
4.3.5.3 Buttai Barn



4.3.5.4 Bishop



4.3.5.5 Buttai Barn #2



4.3.6 Air Quality Discussion

As shown in the tables and graphs above and based on the **annual average** criterion, all of the Dust Deposition Gauge (DDG) monitoring results were well below 4g/m²/month annual average criterion.

As shown in Tables 10 and 11, we received single occurrence elevated DDG results at 'Tetrateca', 'Norma', and 'Buttai Barn' during the reporting period. We discuss the details of these below:

- Tetretheca DDG result between 13/01/23 and 10/02/23:
 - The DDG result contained approximately 25% organic matter (not attributable to quarry activities);
 - No complaints received or evidence of dust generation on site during the period in question;
 - The DDG is located in a remote area which is more than 2klm away from the quarry pit;
 - The result is inconsistent with the last 12 months of data obtained;
 - The Rolling Annual Average for the DDG is well below the relevant criteria;
- Norma DDG between 11/04/23 and 09/05/23:
 - The DDG result contained a high volume of insects;
 - No complaints received or evidence of dust generation on site during the period in question;
 - The result is inconsistent with the last 12 months of data obtained;
 - The Rolling Annual Average for the DDG is well below the relevant criteria;
- Buttai Barn DDG between 04/07/23 and 01/08/23:
 - Firstly, it's worth noting again that following various high DDG results received at 'Buttai Barn' during 2015, a second dust gauge at Buttai Barn ('Buttai Barn #2') was installed in August 2015. We've continued to

- monitor both 'Buttai Barn' and 'Buttai Barn #2' continuously since that time;
- The annual averages for 'Buttai Barn' and 'Buttai Barn #2' are low and below the annual average criterion;
- Substantial and ongoing evidence of ground disturbance activities have occurred adjacent to both Buttai Barn DDG's over time (non-quarry related);
- We received no air quality complaints or enquiries from the community during this time;

Once again, we'll continue to report all DDG results (including the elevated results obtained at 'Buttai Barn' and 'Buttai Barn #2'), with additional investigations completed for ongoing or unexpected outcomes as required.

5. COMPLIANCE ASSESSMENT

5.1 Environmental Protection Licence

Daracon hold Environmental protection Licence 12829 for a 'land based' extractive industry. The licence has an anniversary date of 29th June. The annual return covering the reporting period identified no non-compliances with the conditions of the licence.

A variation to EPL 12829 was approved by the EPA during 2022 to incorporate the RRF into the activities and monitoring regime for the site as whole. The RRF is still in the process of being initiated and the majority of the changes made to the EPL will apply once the RRF is operational. We'll keep the community informed of the progress and implementation of the revised EPL as it occurs.

5.2 Environmental Inspections

Daracon continued to utilise the previous TREES soils conservation representative (Andrew Littlewood) who now operates under the banner of Rubicon Enviro Pty Ltd to undertake an inspection of the quarry annually. Daracon also undertakes regular internal environmental audits of the site. The various reports are attached in Appendix 1 of this document.

All minor deficiencies identified as part of the various inspections were promptly rectified or are ongoing.

5.3 Regulatory Authorities involvement

Daracon had one inspection by the Resource Regulator during the reporting period with no significant issues identified.

Daracon continues to regularly communicate with all regulatory authorities regarding the operation of the quarry and now that the RRF has been approved, the incorporation of that into the quarry management practices. This includes the EPA as we varied the EPL during 2022 to incorporate the RRF operation as described above in Section 5.1, as well as other operational matters requiring the involvement of regulatory authorities such as Cessnock City Council and others.

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 2024 reporting period. **Table 12** provides a summary of the proposed quarry activities.

Table 12: Proposed Activities for 2024

January - December 2024	<ul style="list-style-type: none">• Ongoing review of various Management Plans;• Regular site Inspections;• Noise Monitoring;• Blast Monitoring;• Dust Monitoring;• Continuation of quarrying operations;• Ongoing rehabilitation of non-operational quarry areas where available;• Ongoing CCC involvement;• Progression of the Resource Recovery Facility (RRF) development will be ongoing;• Upgrading Old Buttai Rd and the access road into the quarry once Cessnock City Council approve the work;• Additional minor vegetation clearing at the northern extent of the quarry;
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6.2 Extraction Operations

At this stage, it's envisaged that extraction activities will remain the same for the 2024 period.

6.3 Processing

At this stage, it's envisaged that the Quarry processing operations will remain the same for the 2024 period.

6.4 Overburden And Silt Management

Current controls for overburden and soil management to remain in place and monitored.

6.5 Waste Management

Current controls for waste management to remain in place and monitored.

6.6 Site Infrastructure And Services

Changes will be made to the existing site infrastructure and services as a result of the Resource Recovery Facility (RRF) approval. These changes include the installation of a weighbridge, wheelwash, RRF material receival and processing areas, bitumen sealing the remainder of the access road from John Renshaw Drive to the quarry site and various other associated tasks. As the planning for the additional infrastructure progresses, we will keep the CCC informed as required.

6.7 Water Management

It is expected that there will be some changes to the current water management practices and structures on site. This will include the augmentation of the 'western detention basin' to allow more water storage for use on site.

It is worth noting that the RRF will be located within the existing quarry disturbance footprint and therefore requires minimal additional water control measures to be installed.

6.8 Bushfire Management

Bush fire management practices will remain in place and be continually monitored as noted above. This will also include ongoing consultation with the Rural Fire Service and the adjacent property owners as previously described.

6.9 Hazardous Materials Management

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

6.10 Product Transportation

Following the approval of the RRF in June 2021, we've been working through the various subsequent approvals required to operate the RRF. After a significant amount of effort and time, we eventually received the S138 approval to upgrade Old Buttai Rd in accordance with the RRF consent. We therefore plan to finalise the remaining approvals associated with the RRF and hope to have the RRF operational sometime during 2024. We will keep the CCC informed of the progress of the RRF any associated product transportation increases as required.

In May 2023, we received approval from Cessnock City Council for the 'Temporary 100 laden trucks per day Development Application'. This temporary DA was requested by us to assist with the large quantity of demand for local construction materials in the local region. The temporary DA officially commenced on the 7th June 2023 and currently expires in May 2024.

We're currently planning how to manage the possible extension of this temporary DA with a CCC meeting scheduled for early 2024 to discuss.

6.11 Rehabilitation











The quarry will continue to rehabilitate the finished benches and maintain the bench planting as outlined in the rehabilitation report. Further lantana removal and weed eradication will take place during 2024. We also plan to review and implement the various recommendations noted in the Umwelt report to assist the progress of rehabilitation in bench 2 and 3 during 2024.

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 Environmental Inspection Reports*



ENVIRONMENTAL INSPECTION REPORT


WORKPLACE: Buttai Quarry LOCATION: Buttai WORKS UNDERTAKEN BY: Daracon <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Subcontractor name:		DATE OF INSPECTION: 13/03/23 ATTENDEES: Luke Robinson		WEATHER CONDITIONS: <div>       </div> <div> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <p>Rain (mm): More than 100m in the last month</p> <p>Other:</p>		OVERALL STATUS <div>  <input type="checkbox"/> High  <input type="checkbox"/> Medium  <input checked="" type="checkbox"/> Low </div>	
No.	Location (Area / description)	Issue / Comment	Recommended priority	Action	Close out date		
1	Buttai Quarry main access		N/A	Nil – There was no evidence of dust generation on site and appropriate signage installed at the main gate – Positive observations.	N/A		


2	Security and Old Buttai Rd warning signage	 	N/A	Nil – The ‘trucks turning’ signs on Old Buttai Rd were in a good serviceable condition and, as shown in the images, the site has a number of security cameras installed – Positive observations.	N/A
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3	Active quarry and stockpile areas	 	N/A	Nil – There was no evidence of dust generation during the inspection due to recent rain and the active use of the watercart – Positive observations.	N/A
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4	Dam #4	 	N/A	<p>Nil – Dam #4 was holding a small amount of water with the overhead watercart standpipe moved to Dam #1 due to the low volume of water present in Dam #4 – Positive observation.</p>	N/A
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5	Sed' controls along access road		Low	A few of the sed' control structures along the access road have small windrows in front of that need to be removed to prevent water bypassing the sed' control structures.	Complete 20/03/23
6	Rock lined drain at main entrance		N/A	Nil – The rock lined drain was functional and operating as expected – Positive observation.	N/A

7	Northern pre-strip area		N/A	<p>Nil – The bund on the western section of the northern pre-strip area continues to show a good level of revegetation, whilst the northern stripped area continues to be well contained with all runoff directed to temporary water quality control structures – Positive observations.</p>	N/A
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8	Bench #2 and #3		Low	<p>Despite the fact we recently planted more tube stock onto Bench #3 and following the recent suggestion from the CCC that we consider 'top-down planting', the Daracon Landscapers are planning to install some 'ground cover' species to the interface between Bench #2 AND Bench #3 (bottom image) shortly – Positive observation.</p>	<p>N/A</p> <p>Complete 22/03/23</p>
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9	Panoramic image of the quarry				
10	Summary	<p>Overall, the site is being well maintained with no issues identified. A few minor issues identified as below:</p> <ul style="list-style-type: none"> • A few of the sed' control structures along the access road have small windrows in front of that need to be removed to prevent water bypassing the sed' control structures; • Despite the fact we recently planted more tube stock onto Bench #3 and following the recent suggestion from the CCC that we consider 'top-down planting', the Daracon Landscapers are planning to install some 'ground cover' species to the interface between Bench #2 AND Bench #3 shortly; 			

Issued by: L.Robinson**Issued to:** O.May**Copy to:** P.Walker**Actions Checked:****Key****Recommended Priority for Completion of Actions**

Immediate To be addressed straight away

High Within 24hrs*




Medium Within 3 working days*

Low Within 5 working days*

N/A No work required




*To be completed sooner if adverse weather conditions are predicated

Inspection Report – Daracon Group

CLIENT	Daracon Group	REPORT DATE	23 rd June 2023	REPORT NO.	7	REPORT TO:	Luke Robinson, Jason Gorton – Daracon Group
PROJECT	Buttai Quarry	INSPECTION DATE	22 nd June 2023	ATTENDEES:	Luke Robinson – Daracon Group, Andrew Littlewood – Rubicon Enviro		
WEATHER	Partly cloudy, cool, moderate winds.	COMMENT	The quarry working areas were inspected with no significant issues with drainage or erosion and sediment control noted. Site controllers advised that ongoing weed suppression program is continuing, and revegetated areas are establishing well. A few minor issues were identified, as detailed below.				
ISSUE NO.	LOCATION	ISSUE/MATTER		RECOMMENDATION/COMMENT		PHOTOGRAPH	
1.	Access road – dust control.	On approach to the main quarry office, we noted the site water cart was watering the unsealed portion of the quarry access track.		As discussed, continue to implement effective dust control measures as required.			
2.	Dam 4 – lower water quality basin.	Dam 4 and the adjacent watering fill point was inspected. Site controllers indicated that the water volumes in the dam are managed by pumping up to Dam 2. The spillway was inspected, and it was noted that it appears that no spill event has occurred in the time since the previous inspection. We noted the upslope sump and transfer pipe has accumulated sediment, with the pipe now being partially obstructed.		As discussed, we recommend desilting the sump to restore capacity.			
3.	Air quality – general.	The main quarry workings have extended north, with additional access ramps formed around the void. Two processing areas have been established and regular dust suppression is being undertaken in the various work areas.		At the time of the inspection, air quality was visibly good within the quarry workings and the adjacent areas. As discussed, continue to implement effective dust mitigation measures.			



Inspection Report – Daracon Group

PROJECT:	Buttai Quarry	INSPECTION REPORT NO.	7	REPORT DATE	23 rd June 2023
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ISSUE NO.	LOCATION	ISSUE/MATTER	RECOMMENDATION/COMMENT	PHOTOGRAPH
4.	Northern bund on the northern access ramp.	The northern ramp and the adjacent bund was inspected. The vegetation on the bund has progressed well, with trees now exceeding six metres (6m) in height in many locations. The associated drainage line is colonised with vegetation and coarse sediment migration is minimised. Vegetation is also well established on the adjacent benches above the ramp.	No actions were required in the area.	
5.	Northern extension area.	The area of the northern quarry extension was inspected. The clearing works in the area have incorporated windrowed timber on the boundary of works, controlled with a topsoil berm formed immediately upslope. We noted the berm at the northeastern extent intersects with windrowed vegetation and a quantity of water is ponding in the area.	As discussed, we recommend the area is monitored following significant rainfall events to ensure that the spill path for the flows from the area remains stable.	
6.	Bench 2 and Bench 3 rehabilitation areas.	At the time of the inspection, the access ramp to the Bench 2 and Bench 3 rehabilitation area was in the process of being realigned. Access to the area was not readily available. Site controllers indicated that the rehabilitation area continues to be managed with periodic weed suppression and regular maintenance inspections.	Based on a distant view of the area, it appears that the vegetation is establishing well, and no significant issues are anticipated beyond continued weed suppression.	

Inspection Report – Daracon Group








PROJECT:	Buttai Quarry	INSPECTION REPORT NO.	7	REPORT DATE	23 rd June 2023
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ISSUE NO.	LOCATION	ISSUE/MATTER	RECOMMENDATION/COMMENT	PHOTOGRAPH
7.	Main access track – sediment controls.	The sediment fence controls installed in the mitre drains along the access track were inspected. In general, the sediment fences remain functional and in position however a few installations were noted to require additional pinning.	As discussed, continue to monitor, maintain, and reinstate the sediment fence installations as required.	
8.	Drainage lines and culvert - front gate.	The area around the pipe culvert at the front gate was inspected. The drainage lines remain stable, and the downslope sump continues to remain stable with spill flows continuing to discharge via a vegetated spillway.	The controls in the area remain functional and no actions were required.	


Report by: Andrew Littlewood – Senior Soil Conservationist & CPESC No. 5988

Signed : 



ENVIRONMENTAL INSPECTION REPORT



WORKPLACE: Buttai Quarry LOCATION: Buttai WORKS UNDERTAKEN BY: Daracon <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Subcontractor name:		DATE OF INSPECTION: 14/09/23 ATTENDEES: Luke Robinson		WEATHER CONDITIONS: <div style="display: flex; justify-content: space-around; align-items: center;">       </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> Rain (mm): Approximately 50mm in the last month Other:		OVERALL STATUS <div style="display: flex; align-items: center; margin-bottom: 5px;"> <input type="checkbox"/> High </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <input type="checkbox"/> Medium </div> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> Low </div>	
No.	Location (Area / description)	Issue / Comment	Recommended priority	Action	Close out date		
1	Buttai Quarry main access		N/A	Nil – There was no evidence of dust generation on site and silt fences along the haul road were intact – Positive observations.	N/A		


2	Dam #4	 	N/A	Nil – Dam #4 was holding a moderate amount of water – Positive observation.	N/A
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3	Active quarry and stockpile areas	 	Medium	Watercart was actively being used to control dust on site but the dust suppression on the crusher was not functioning correctly at the time of inspection.	The dust suppression on the crusher was resolved on the 18/09/23
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4	Northern ramp	 	N/A	Nil – The northern ramp was temporarily blocked to prevent trespass – Positive observation.	N/A
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5	Storage container		N/A	Nil – The container had appropriate signage installed and chemicals stored in banded areas – Positive observations.	N/A
6	Gate to fire road at top of quarry		N/A	Nil – The gate was intact with no evidence of trespass – Positive observation.	N/A

7	Main access road		Low	Potholes on the bitumen sealed access road need repairing.	Complete in January 2024
8	Security camera at top of quarry		N/A	Nil – The security camera located at the top of the quarry is operating effectively – Positive observation.	N/A

9	Northern pre-strip area	 	N/A	<p>Nil – The bund on the western section of the northern pre-strip area continues to show a good level of revegetation, whilst the northern stripped area continues to be well contained with all runoff directed to temporary water quality control structures – Positive observations.</p>	N/A
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10	Bench #2 and #3	 	N/A	<p>Nil - The 'top-down plantings' installed earlier this year are still present and alive. This should hopefully provide additional 'ground cover' to the interface between Bench #2 and Bench #3 shortly – Positive observation.</p>	N/A
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11	Panoramic image of the quarry				
12	Summary	<p>Overall, the site is being well maintained with no issues identified. A few minor issues identified as below:</p> <ul style="list-style-type: none"> • Watercart was actively being used to control dust on site but the dust suppression on the crusher was not functioning correctly at the time of inspection. • Potholes on the bitumen sealed access road need repairing. 			

Issued by: L.Robinson

Issued to: D.Murrell

Copy to: P.Walker

Actions Checked:

Key

Recommended Priority for Completion of Actions

Immediate To be addressed straight away

High Within 24hrs*








Medium Within 3 working days*



Low Within 5 working days*



N/A No work required



*To be completed sooner if adverse weather conditions are predicated

ENVIRONMENTAL INSPECTION REPORT


WORKPLACE: Buttai Quarry LOCATION: Buttai WORKS UNDERTAKEN BY: Daracon <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Subcontractor name:		DATE OF INSPECTION: 13/12/23 ATTENDEES: Luke Robinson		WEATHER CONDITIONS: <div style="display: flex; justify-content: space-around; align-items: center;">       </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> Rain (mm): Approximately 100mm in the last month Other:		OVERALL STATUS <div style="display: flex; align-items: center; margin-bottom: 5px;"> ● <input type="checkbox"/> High </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> ● <input type="checkbox"/> Medium </div> <div style="display: flex; align-items: center;"> ● <input checked="" type="checkbox"/> Low </div>
No.	Location (Area / description)	Issue / Comment	Recommended priority	Action	Close out date	
1	Buttai Quarry main access		N/A	Nil – All appropriate site access signage was installed and functional at the main gate – Positive observation.	N/A	



2	Dust control on site	 	N/A	<p>Nil – At the time of the inspection, there were two watercarts operating due to the extremely low quantity of site water available from the site dams. No evidence of dust generation – Positive observations.</p>	N/A
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3	Active quarry and stockpile areas	 	N/A	Nil – No issues were identified within the active quarry face and stockpile areas of the site – Positive observations.	N/A
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4	Dam 1		Consider	At the time of inspection, Dam 1 was almost completely empty. It may be worth considering de-silting activities in the near future.	
5	Dam 2		N/A	Nil - At the time of inspection, Dam 2 was holding a small quantity of water that is being used for the pugmilling operations – Positive observation.	N/A

6	Dam 3		N/A	Nil - At the time of inspection, Dam 3 was holding a small quantity of water that is being used for site dust control – Positive observation.	N/A
7	Dam 4		Consider	At the time of inspection, Dam 4 was almost completely empty. It may be worth considering de-silting activities in the near future.	

8	Main access road pothole repairs		N/A	Pending - Ian Rich Asphalt have been engaged to repair the potholes in the access road with the work scheduled for early 2024 – Positive observation.	N/A
9	Security cameras on site		N/A	Nil – There are a few security cameras operating on site and they appear to be functioning effectively – Positive observation.	N/A

10	Chemical storage		N/A	Nil – Chemicals were stored in a bunded tray – Positive observations.	N/A
11	Silt fences		N/A	Nil – The silt fences along the access road were serviceable and operating effectively – Positive observations.	N/A

12	Panoramic image of the quarry				
13	Summary	<p>Overall, the site is being well maintained with no major issues identified. A few minor issues identified as below:</p> <ul style="list-style-type: none"> • At the time of inspection, Dam 1 was almost completely empty. It may be worth considering de-silting activities in the near future; • At the time of inspection, Dam 4 was almost completely empty. It may be worth considering de-silting activities in the near future; 			

Issued by: L.Robinson**Issued to:** D.Murrell**Copy to:** P.Walker**Actions Checked:****Key****Recommended Priority for Completion of Actions**

Immediate To be addressed straight away

High Within 24hrs*

Medium Within 3 working days*

Low Within 5 working days*

N/A No work required

*To be completed sooner if adverse weather conditions are predicated

Buttai quarry

Monthly site condition checklist

(Extract from Buttai quarry management plan February 2011)

This checklist is to be completed monthly by the operations manager, Daracon quarry.

Completed checklists are to be retained and included in the annual report to council

Date of inspection:	06-01-23	Inspected by:		Geoff Reeves
SEDIMENT CONTROLS		Yes	No	Comments/ Action
Sediment fences installed and maintained		✓		
Site checked for erosion		✓		
Stockpiles located and maintained correctly		✓		
Tree clearance restricted to required area		✓		
WATER QUALITY AND QUANTITY		YES	NO	
Drainage and sediment controls in place and in good order. (Including water storages, pumps and pipes.)		✓		
Fuel or oil spills reported and cleaned up				No spills
Fuels\ Chemicals stored in bunded areas		✓		
AIR QUALITY		YES	NO	
Continuous dust deposition monitoring Under taken. (Collected for anaylsis every 28 days.)		✓		
On site dust suppression undertaken as required		✓		
All loads covered entering and leaving site.		✓		
Vegetation burnt on site			✓	
NOISE		YES	NO	
Operating only during hours of operation		✓		
Have there been any noise complaints received nearby residents?			✓	
Noise monitoring of new plant and equipment. (Initially and then every 12 months)		✓		
Ambient noise monitoring at nearby residents. (Frequency: 12 monthly)		✓		
BLAST MANAGEMENT		YES	NO	
Blast notification checklist completed for each blast undertaken during the month.		✓		
Blast record form completed for each blast undertaken for the month		✓		

[illegible]

Buttai quarry

Monthly site condition checklist

(Extract from Buttai quarry management plan February 2011)

This checklist is to be completed monthly by the operations manager, Daracon quarry.

Completed checklists are to be retained and included in the annual report to council

Date of inspection:	03-02-23	Inspected by:	Geoff Reeves
SEDIMENT CONTROLS	Yes	No	Comments/ Action
Sediment fences installed and maintained	✓		
Site checked for erosion	✓		
Stockpiles located and maintained correctly	✓		
Tree clearance restricted to required area	✓		
WATER QUALITY AND QUANTITY	YES	NO	
Drainage and sediment controls in place and in good order. (Including water storages, pumps and pipes.)	✓		
Fuel or oil spills reported and cleaned up			No spills
Fuels\ Chemicals stored in bunded areas	✓		
AIR QUALITY	YES	NO	
Continuous dust deposition monitoring Under taken. (Collected for anaylsis every 28 days.)	✓		
On site dust suppression undertaken as required	✓		
All loads covered entering and leaving site.	✓		
Vegetation burnt on site		✓	
NOISE	YES	NO	
Operating only during hours of operation	✓		
Have there been any noise complaints received nearby residents?		✓	
Noise monitoring of new plant and equipment. (Initially and then every 12 months)	✓		
Ambient noise monitoring at nearby residents. (Frequency: 12 monthly)	✓		
BLAST MANAGEMENT	YES	NO	
Blast notification checklist completed for each blast undertaken during the month.	✓		
Blast record form completed for each blast undertaken for the month	✓		

[illegible]

Buttai quarry

Monthly site condition checklist

(Extract from Buttai quarry management plan February 2011)

This checklist is to be completed monthly by the operations manager, Daracon quarry.

Completed checklists are to be retained and included in the annual report to council

Date of inspection:	03-03-23	Inspected by:		Geoff Reeves
SEDIMENT CONTROLS		Yes	No	Comments/ Action
Sediment fences installed and maintained		✓		
Site checked for erosion		✓		
Stockpiles located and maintained correctly		✓		
Tree clearance restricted to required area		✓		
WATER QUALITY AND QUANTITY		YES	NO	
Drainage and sediment controls in place and in good order. (Including water storages, pumps and pipes.)		✓		
Fuel or oil spills reported and cleaned up				No spills
Fuels\ Chemicals stored in bunded areas		✓		
AIR QUALITY		YES	NO	
Continuous dust deposition monitoring Under taken. (Collected for anaylsis every 28 days.)		✓		
On site dust suppression undertaken as required		✓		
All loads covered entering and leaving site.		✓		
Vegetation burnt on site			✓	
NOISE		YES	NO	
Operating only during hours of operation		✓		
Have there been any noise complaints received nearby residents?			✓	
Noise monitoring of new plant and equipment. (Initially and then every 12 months)		✓		
Ambient noise monitoring at nearby residents. (Frequency: 12 monthly)		✓		
BLAST MANAGEMENT		YES	NO	
Blast notification checklist completed for each blast undertaken during the month.		✓		
Blast record form completed for each blast undertaken for the month		✓		

[illegible]

Buttai quarry
Monthly site condition checklist

(Extract from Buttai quarry management plan February 2011)

This checklist is to be completed monthly by the operations manager, Daracon quarry.

Completed checklists are to be retained and included in the annual report to council

Date of inspection:	24/4/23		Inspected by:	L. Benson	
SEDIMENT CONTROLS	Yes	No	Comments/ Action		
Sediment fences installed and maintained	✓				
Site checked for erosion	✓				
Stockpiles located and maintained correctly	✓				
Tree clearance restricted to required area	✓				
WATER QUALITY AND QUANTITY	YES	NO			
Drainage and sediment controls in place and in good order. (Including water storages, pumps and pipes.)	✓				
Fuel or oil spills reported and cleaned up			None		
Fuels\ Chemicals stored in bunded areas	✓				
AIR QUALITY	YES	NO			
Continuous dust deposition monitoring Under taken. (Collected for analysis every 28 days.)	✓				
On site dust suppression undertaken as required	✓				
All loads covered entering and leaving site.	✓				
Vegitation burnt on site		✓			
NOISE	YES	NO			
Operating only during hours of operation	✓				
Have there been any noise complaints received nearby residents?		✓			
Noise monitoring of new plant and equipment. (Initially and then every 12 months)	✓				
Ambient noise monitoring at nearby residents. (Frequency: 12 monthly)	✓				
BLAST MANAGEMENT	YES	NO			
Blast notification checklist completed for each blast undertaken during the month.	✓				
Blast record form completed for each blast undertaken for the month	✓				

[illegible]

Buttai quarry Monthly site condition checklist

(Extract from Buttai quarry management plan February 2011)

This checklist is to be completed monthly by the operations manager, Daracon quarry.

Completed checklists are to be retained and included in the annual report to council

Date of inspection:	16/5/23	Inspected by:	L. Robson
SEDIMENT CONTROLS	Yes	No	Comments/ Action
Sediment fences installed and maintained	✓		
Site checked for erosion	✓		
Stockpiles located and maintained correctly	✓		
Tree clearance restricted to required area	✓		
WATER QUALITY AND QUANTITY	YES	NO	
Drainage and sediment controls in place and in good order. (Including water storages, pumps and pipes.)	✓		
Fuel or oil spills reported and cleaned up		✓	No spills.
Fuels\ Chemicals stored in bunded areas	✓		
AIR QUALITY	YES	NO	
Continuous dust deposition monitoring Under taken. (Collected for analysis every 28 days.)	✓		
On site dust suppression undertaken as required	✓		
All loads covered entering and leaving site.	✓		
Vegetation burnt on site		✓	
NOISE	YES	NO	
Operating only during hours of operation	✓		
Have there been any noise complaints received nearby residents?	✓		Cleanaway truck using Kings Rd - resolved.
Noise monitoring of new plant and equipment. (Initially and then every 12 months)	✓		
Ambient noise monitoring at nearby residents. (Frequency: 12 monthly)	✓		Noise monitoring occurred.
BLAST MANAGEMENT	YES	NO	
Blast notification checklist completed for each blast undertaken during the month.	✓		
Blast record form completed for each blast undertaken for the month	✓		

[illegible]

Buttai quarry Monthly site condition checklist

(Extract from Buttai quarry management plan February 2011)

This checklist is to be completed monthly by the operations manager, Daracon quarry.

Completed checklists are to be retained and included in the annual report to council

Date of inspection:	4/6/23	Inspected by:	L. Robinson
SEDIMENT CONTROLS	Yes	No	Comments/ Action
Sediment fences installed and maintained	✓		
Site checked for erosion	✓		
Stockpiles located and maintained correctly	✓		
Tree clearance restricted to required area	✓		
WATER QUALITY AND QUANTITY	YES	NO	
Drainage and sediment controls in place and in good order. (Including water storages, pumps and pipes.)	✓		
Fuel or oil spills reported and cleaned up		✓	None.
Fuels\ Chemicals stored in bunded areas	✓		
AIR QUALITY	YES	NO	
Continuous dust deposition monitoring Under taken. (Collected for analysis every 28 days.)	✓		
On site dust suppression undertaken as required	✓		
All loads covered entering and leaving site.	✓		
Vegetation burnt on site		✓	
NOISE	YES	NO	
Operating only during hours of operation	✓		
Have there been any noise complaints received nearby residents?		✓	
Noise monitoring of new plant and equipment. (Initially and then every 12 months)	✓		
Ambient noise monitoring at nearby residents. (Frequency: 12 monthly)	✓		
BLAST MANAGEMENT	YES	NO	
Blast notification checklist completed for each blast undertaken during the month.	✓		
Blast record form completed for each blast undertaken for the month	✓		

FLORA AND FAUNA	Yes	No	Comments/ Action
Any disturbance outside area of operations?		<input checked="" type="checkbox"/>	
Road seal and drainage adjacent to <i>Tetratheca juncea</i> population in good order	<input checked="" type="checkbox"/>		
All buffer areas and buffer boundary markings intact	<input checked="" type="checkbox"/>		
Weed control undertaken. (Also document presence of weeds on site and effectiveness of control works	<input checked="" type="checkbox"/>		
REHABILITATION	YES	NO	
Rehabilitation areas in good condition	<input checked="" type="checkbox"/>		
Weeds	YES	NO	
Identify location of weed species sighted during inspection and effectiveness of weed control undertaken during the month	<input checked="" type="checkbox"/>		
HERITAGE	YES	NO	
Stop work if sites located, consult with DECC- NPWS		<input checked="" type="checkbox"/>	
BUSHFIRE	YES	NO	
Hazard reduction measures have been undertaken.	<input checked="" type="checkbox"/>		Ongoing
WASTE MANAGEMENT	YES	NO	
Any rubbish visible or buried on site.		<input checked="" type="checkbox"/>	
Waste removed by licenced contractor	<input checked="" type="checkbox"/>		
Fuels\ waste oils stored in bunded area	<input checked="" type="checkbox"/>		
ROADS AND TRANSPORT	YES	NO	
Haul roads and associated drainage in good condition	<input checked="" type="checkbox"/>		
Truck movements not exceeding 60 loads per day. (120 truck movements) combined.	<input checked="" type="checkbox"/>		Increase to 100 loads trucks commenced
COMPLAINTS AND INCIDENTS	YES	NO	
Complaints register maintained	<input checked="" type="checkbox"/>		
Incident register maintained	<input checked="" type="checkbox"/>		
Other comments			
Temporary DA to increase loads to 100 per day (200 movements) commenced this month for 12 months.			

Buttai quarry

Monthly site condition checklist

(Extract from Buttai quarry management plan February 2011)

This checklist is to be completed monthly by the operations manager, Daracon quarry.

Completed checklists are to be retained and included in the annual report to council

Date of inspection:	15/7/23	Inspected by:	D. Murrell
SEDIMENT CONTROLS	Yes	No	Comments/ Action
Sediment fences installed and maintained	✓		
Site checked for erosion	✓		
Stockpiles located and maintained correctly	✓		
Tree clearance restricted to required area	✓		
WATER QUALITY AND QUANTITY	YES	NO	
Drainage and sediment controls in place and in good order. (Including water storages, pumps and pipes.)	✓		
Fuel or oil spills reported and cleaned up		✓	NO SPILLS
Fuels\ Chemicals stored in bunded areas	✓		
AIR QUALITY	YES	NO	
Continuous dust deposition monitoring Under taken. (Collected for analysis every 28 days.)	✓		
On site dust suppression undertaken as required	✓		
All loads covered entering and leaving site.	✓		
Vegetation burnt on site		✓	
NOISE	YES	NO	
Operating only during hours of operation	✓		
Have there been any noise complaints received nearby residents?		✓	
Noise monitoring of new plant and equipment. (Initially and then every 12 months)	✓		
Ambient noise monitoring at nearby residents. (Frequency: 12 monthly)	✓		
BLAST MANAGEMENT	YES	NO	
Blast notification checklist completed for each blast undertaken during the month.	✓		
Blast record form completed for each blast undertaken for the month	✓		

[illegible]

Buttai quarry

Monthly site condition checklist

(Extract from Buttai quarry management plan February 2011)

This checklist is to be completed monthly by the operations manager, Daracon quarry.

Completed checklists are to be retained and included in the annual report to council

Date of inspection:	10/8/23	Inspected by:	D. MORRELL
SEDIMENT CONTROLS	Yes	No	Comments/ Action
Sediment fences installed and maintained	✓		
Site checked for erosion	✓		
Stockpiles located and maintained correctly	✓		
Tree clearance restricted to required area	✓		
WATER QUALITY AND QUANTITY	YES	NO	
Drainage and sediment controls in place and in good order. (Including water storages, pumps and pipes.)	✓		
Fuel or oil spills reported and cleaned up		✓	NO SPILLS
Fuels\ Chemicals stored in bunded areas	✓		
AIR QUALITY	YES	NO	
Continuous dust deposition monitoring Under taken. (Collected for anaylsis every 28 days.)	✓		
On site dust suppression undertaken as required	✓		
All loads covered entering and leaving site.	✓		
Vegetation burnt on site		✓	
NOISE	YES	NO	
Operating only during hours of operation	✓		
Have there been any noise complaints received nearby residents?		✓	
Noise monitoring of new plant and equipment. (Initially and then every 12 months)	✓		
Ambient noise monitoring at nearby residents. (Frequency: 12 monthly)	✓		NOISE MONITORING OCCURRED
BLAST MANAGEMENT	YES	NO	
Blast notification checklist completwed for each blast undertaken during the month.	✓		
Blast record form completed for each blast undertaken for the month	✓		

[illegible]

Buttai quarry

Monthly site condition checklist

(Extract from Buttai quarry management plan February 2011)

This checklist is to be completed monthly by the operations manager, Daracon quarry.

Completed checklists are to be retained and included in the annual report to council

Date of inspection:	11/9/23	Inspected by:	D. MORRELL
SEDIMENT CONTROLS	Yes	No	Comments/ Action
Sediment fences installed and maintained	✓		
Site checked for erosion	✓		
Stockpiles located and maintained correctly	✓		
Tree clearance restricted to required area	✓		
WATER QUALITY AND QUANTITY	YES	NO	
Drainage and sediment controls in place and in good order. (Including water storages, pumps and pipes.)	✓		
Fuel or oil spills reported and cleaned up		✓	NONE
Fuels\ Chemicals stored in bunded areas	✓		
AIR QUALITY	YES	NO	
Continuous dust deposition monitoring Under taken. (Collected for analysis every 28 days.)	✓		
On site dust suppression undertaken as required	✓		
All loads covered entering and leaving site.	✓		
Vegetation burnt on site		✓	
NOISE	YES	NO	
Operating only during hours of operation	✓		
Have there been any noise complaints received nearby residents?		✓	NONE
Noise monitoring of new plant and equipment. (Initially and then every 12 months)	✓		
Ambient noise monitoring at nearby residents. (Frequency: 12 monthly)	✓		
BLAST MANAGEMENT	YES	NO	
Blast notification checklist completed for each blast undertaken during the month.	✓		
Blast record form completed for each blast undertaken for the month	✓		

[illegible]

Buttai quarry

Monthly site condition checklist

(Extract from Buttai quarry management plan February 2011)

This checklist is to be completed monthly by the operations manager, Daracon quarry.

Completed checklists are to be retained and included in the annual report to council

Date of inspection:	19/10/23	Inspected by:	D. MORRELL
SEDIMENT CONTROLS	Yes	No	Comments/ Action
Sediment fences installed and maintained	✓		
Site checked for erosion	✓		
Stockpiles located and maintained correctly	✓		
Tree clearance restricted to required area	✓		
WATER QUALITY AND QUANTITY	YES	NO	
Drainage and sediment controls in place and in good order. (Including water storages, pumps and pipes.)	✓		
Fuel or oil spills reported and cleaned up		✓	NONE
Fuels\ Chemicals stored in bunded areas	✓		
AIR QUALITY	YES	NO	
Continuous dust deposition monitoring Under taken. (Collected for analysis every 28 days.)	✓		
On site dust suppression undertaken as required	✓		
All loads covered entering and leaving site.	✓		
Vegetation burnt on site		✓	
NOISE	YES	NO	
Operating only during hours of operation	✓		
Have there been any noise complaints received nearby residents?		✓	NONE
Noise monitoring of new plant and equipment. (Initially and then every 12 months)	✓		
Ambient noise monitoring at nearby residents. (Frequency: 12 monthly)	✓		
BLAST MANAGEMENT	YES	NO	
Blast notification checklist completed for each blast undertaken during the month.	✓		
Blast record form completed for each blast undertaken for the month	✓		

Buttai quarry

Monthly site condition checklist

(Extract from Buttai quarry management plan February 2011)

This checklist is to be completed monthly by the operations manager, Daracon quarry.

Completed checklists are to be retained and included in the annual report to council

Date of inspection:	27/11/23	Inspected by:	D. M. J. J. L.
SEDIMENT CONTROLS	Yes	No	Comments/ Action
Sediment fences installed and maintained	✓		
Site checked for erosion	✓		
Stockpiles located and maintained correctly	✓		
Tree clearance restricted to required area	✓		
WATER QUALITY AND QUANTITY	YES	NO	
Drainage and sediment controls in place and in good order. (Including water storages, pumps and pipes.)	✓		
Fuel or oil spills reported and cleaned up		✓	NONE
Fuels\ Chemicals stored in bunded areas	✓		
AIR QUALITY	YES	NO	
Continuous dust deposition monitoring Under taken. (Collected for analysis every 28 days.)	✓		
On site dust suppression undertaken as required	✓		
All loads covered entering and leaving site.	✓		
Vegetation burnt on site		✓	
NOISE	YES	NO	
Operating only during hours of operation	✓		
Have there been any noise complaints received nearby residents?		✓	NONE
Noise monitoring of new plant and equipment. (Initially and then every 12 months)	✓		
Ambient noise monitoring at nearby residents. (Frequency: 12 monthly)	✓		NOISE MONITORING
BLAST MANAGEMENT	YES	NO	
Blast notification checklist completed for each blast undertaken during the month.	✓		
Blast record form completed for each blast undertaken for the month	✓		

[illegible]

Buttai quarry

Monthly site condition checklist

(Extract from Buttai quarry management plan February 2011)

This checklist is to be completed monthly by the operations manager, Daracon quarry.

Completed checklists are to be retained and included in the annual report to council

Date of inspection:	18/12/23	Inspected by:	D. MORRELL
SEDIMENT CONTROLS	Yes	No	Comments/ Action
Sediment fences installed and maintained	✓		
Site checked for erosion	✓		
Stockpiles located and maintained correctly	✓		
Tree clearance restricted to required area	✓		
WATER QUALITY AND QUANTITY	YES	NO	
Drainage and sediment controls in place and in good order. (Including water storages, pumps and pipes.)	✓		
Fuel or oil spills reported and cleaned up		✓	NO
Fuels\ Chemicals stored in bunded areas	✓		
AIR QUALITY	YES	NO	
Continuous dust deposition monitoring Under taken. (Collected for analysis every 28 days.)	✓		
On site dust suppression undertaken as required	✓		
All loads covered entering and leaving site.	✓		
Vegetation burnt on site		✓	
NOISE	YES	NO	
Operating only during hours of operation	✓		
Have there been any noise complaints received nearby residents?		✓	NO
Noise monitoring of new plant and equipment. (Initially and then every 12 months)	✓		
Ambient noise monitoring at nearby residents. (Frequency: 12 monthly)	✓		
BLAST MANAGEMENT	YES	NO	
Blast notification checklist completed for each blast undertaken during the month.	✓		
Blast record form completed for each blast undertaken for the month	✓		

[illegible]

Appendix 2 2023 Community Consultative Committee Meeting Minutes



Agenda

BUTTAI QUARRY COMMUNITY CONSULTATIVE COMMITTEE

9am to 10.30am, Friday 28 April 2023

Kurri Kurri Community Centre, 251 Lang Road, Kurri Kurri

Attendees

Janet Murray	Community Representative
Terry Lewin	Community Representative
Colin East	Community Representative
Cr Rosa Grine	Cessnock City Councillor
Cr Mitchell Hill	Cessnock City Councillor (alternate)
Sarah Hyatt	Cessnock City Council
Luke Robinson	Daracon
John Canon	Daracon
Oscar May	Daracon (Guest)
Marty Bracher	Precision Drill + Blast (Guest)
Kate Baartz	Independent Chairperson (Baartz & Co)

Agenda items

1. Welcome, acknowledgement, apologies
Oscar May was introduced to the group as the new quarry supervisor at Buttai Quarry. Geoff Reeves has transferred to Ardglan to start preparing the quarry for future operation.
2. Minutes from October 2022 meeting
Adopted as final
3. Actions arising from previous minutes
 - a. Blasting contractor, Precision Drill + Blast, to attend and present

Action	Responsibility
1. Ask the blasting contractor to advise what the trigger level is set at and see if the calibration level can be included in reporting	COMPLETE
2. Provide LR contact details for RID officer.	COMPLETE
3. Discuss top down plantings with landscape team.	COMPLETE

4. Daracon presentation
LR provided a presentation including a summary of operations in 2022 and plans for the year ahead. Key points included
 - it was exceptionally busy and sales impacted by rain
 - 60 laden vehicles per year is still challenging for site
 - seven blasts and ongoing visits from the regulator
 - air quality monitoring within limits, although there continued to be intermittent anomalies in the readings at Buttai Barn



- noise monitoring is within the limits
- quarry footprint has extended along the northern and eastern edge
- good examples of vegetation regrowth occurring on site
- blasting to be discussed in detail by Precision Drill and Blast representative (Marty Bracher)
- incidents/complaints – other than trespassing, there is a Cleanaway truck using the incorrect exit occasionally
- Daracon have completed top down planting on the benches, if it progresses well then more will be done across the benches noting it is labour intensive on bench two
- Note: the presentation is saved in the [meeting share file](#)

Comments

- JM - Noted there is still nuisance dust from quarry/Bloomfield/dirt road

Discussion – top down planting

- TL – Umwelt raised concern about whether that would work. Also suggested an additional row on the bench. Can we do both? Visibility of benches from John Renshaw drive is an ongoing issue, it would be good to see some improvement.
- LR – The section visible from John Renshaw has the worst growth, if this contributes to the reduction in visibility, then more will be done. This is the first time we have tried this approach, it's good to try and see how it goes.

Discussion – s138 for road

- Unlikely to use George Booth drive anytime soon
- S138 has turned out to be a more challenging process than anticipated
- Designed speed limit in 100km, so we have to design for 110km per hour
- The quality of the road will be very good
- JM – The surface of the road has a big impact on noise, what will the surface be
- JC – Resealed road will be better than unsealed gravel
- LR – There are issues with the intersection with having to clear up to an additional 7000sqm of trees which defeats the purpose of what we are trying to do with the RRF
- CE – The wider the intersection, the more people it will attract
- JM – The hoons have already discovered new tar and there are dumped and burnt out vehicles present
- LR – Daracon can make the road safe, but can't remove the dumped vehicles

Discussion – DA for additional vehicle movements

- The development application is currently on public exhibition
- JM - Has not received letter but was notified by a neighbour that it was on exhibition. Visited the website and there are also no documents to review
- LR - Advised they may drop the vehicles movement number to amend the number below 200 vehicle movements to per day as 200 triggers further road upgrades ¹

¹ Post meeting note: Cessnock Council has subsequently advised that the 200 vehicles per day trigger will not apply due to the temporary nature of the DA for the increased truck movements.



- DA is a temporary for 12 months and attached to the quarry
- The maximum already approved for when RRF and quarry are operating is 120 laden (240 total)
- <https://datracker.cessnock.nsw.gov.au/application/ApplicationDetails/008/2023/00000217/001/>

Actions

- LR to advise when he has heard back from Cleanaway²
- OM to remind Cleanaway next time they are on site
- SH to find out why JM didn't receive letter and will get documents uploaded to website³

5. General business

Daracon talked through the trespassing incidents advising, there have been none this year and the ones last year were generally entering the site from the western side. They were mainly taking fuel. It is hoped more positive activity related to the Richmond Vale Rail Trail will help with reducing this issue.

There was also discussion about preparing Ardglen as demand continues to increase. There is plenty of work on the horizon with Muswellbrook, Singleton and the Newcastle Inner City Bypass and major works at Warner Vale. The quarry has potential even with the additional haulage required. It has premium class rock, need to identify a market then figure out transport.

6. Precision Drill and Blast demonstration

Explained to the group about how blasts are planned, designed, implemented and measured in accordance with Australian Standards and EPA guidelines for the quarry. Marty Bracher demonstrated the different equipment used to measure noise and vibration and explained how the levels are calibrated to make sure they capture the blasts not just the ambient noise and vibrations.

² Post meeting note: LR followed up Cleanaway on Monday 1 May and they had spoken to the driver to reiterate the correct access for the quarry site.

³ Post meeting note: Council have notified that there was an administrative error with the exhibition documents which has now been corrected. The exhibition period has also been extended to the 15th May 2023 to allow for this error.

- Rock type at Buttai doesn't transmit vibration and noise as far
- EPA licence is based on AS and compared rest of world, Australia is quite conservative
- Over pressure – felt more after the vibration
- Blasts are very regulated, quarry itself absorbs a lot of noise
- Blasts are now facing away from residents
- The blast monitoring trigger levels are set so they are not influenced by background noise and vibrations and to ensure that the memory on the computer doesn't fill up before the blasts occurs – the sensors are super sensitive so it can trigger and record ambient noise.



Comments

- CE – commended the quality of the presentation especially the explanation between noise and pressure measurement
- CE – thank you to Luke, John and Oscar for organising the presentation

Actions arising

Action	Responsibility
1. LR to advise when he has heard back from Cleanaway	LR
2. OM to remind Cleanaway next time they are on site	OM
3. SH to find out why JM didn't receive letter and will get documents uploaded to website	SH

[Meeting share file](#)



Minutes

BUTTAI QUARRY COMMUNITY CONSULTATIVE COMMITTEE EXTRAORDINARY MEETING 2pm, Friday 8 September 2023 Kurri Kurri Community Centre, 251 Lang Road, Kurri Kurri

Attendees

Janet Murray (JM)	Community Representative
Terry Lewin (TL)	Community Representative
Colin East (CE)	Community Representative
Cr Rosa Grine (RG)	Cessnock City Councillor
Cr Mitchell Hill (MH)	Cessnock City Councillor (alternate)
Sarah Hyatt (SH)	Cessnock City Council
Sue Page (SP)	Cessnock City Council
Luke Robinson (LR)	Daracon
John Canon (JC)	Daracon
Jules Bosco (JB)	Cessnock City Council (Guest)
Steve O'Connor (SO)	SLR Consulting (Guest)
Kate Baartz (KB)	Independent Facilitator (Baartz & Co)

Agenda items

1. Welcome, acknowledgement, apologies
Introduce Sue Page, Principal Development Planner from Cessnock City Council who will be replacing Sarah Hyatt who is heading off on parental leave. Welcome extended to Jules Bosco, from the Development Services Team and Steve O'Connor from SLR Consulting.

2. Old Buttai Rd upgrade
An extraordinary meeting was called to discuss the Old Buttai Rd upgrade associated with the Resource Recovery Facility (RRF) consent.

Cessnock City Council Traffic committee rejected Daracon's proposed design to upgrade Old Buttai Rd. Council provided a potential alternative design and was the topic for discussion at this meeting.

LR provided an overview of the background and status update to the resource recovery facility (RRF), the key points being:

- the purpose of the RFF is to reuse products which would have gone to landfill
- it was approved in June 2021
- it was intended to be a positive environmental initiative
- the upgrade to Old Buttai Road was proposed by Daracon as part of the approval

Daracon has been engaging with Council about the S138 roads approval, the current status is:

- the alignment proposed by Daracon was not supported by the Traffic Committee



- the road needs to be designed for a speed limit of 100kph +10%
- the Traffic Committee has recommended the investigation of a different alignment, with the priority given to Old Buttai Road which means site distance needs to be longer
- the alternative council proposed alignment would require additional clearing of undisturbed vegetation and the acquisition of land.

Daracon presentation is available in the [meeting share file](#)

What do we do now?

- Option one: Further explore Council alignment option
- Option two: Modifying the consent to remove bitumen option
- Option three: Don't proceed with the RFF at all

Discussion

- Council noted that any road design that introduces lines or signs needs to go to the Traffic Committee, they are an advisory committee not an approval body
- Not sealing the road could be an option but an unsealed road does generate dust and noise
- A sealed road is easier to maintain, maintenance is Daracon's responsibility
- Closest proximity are properties owned by Daracon and three residents
- The three residents don't use Old Buttai Road as their primary access, they use Lings Road
- The better the road the more likelihood of hoon activity
- Alternate options and alignments were discussed including a roundabout
- Daracon are happy to spend the money on bitumen sealing to get a positive outcome for the community
- Potential to lobby TNSW to get a speed reduction on that road, although Transport for NSW (TNSW) will likely say it is a Council issue and have known to be hesitant to reduce speeds on unsealed roads
- Traffic Committee includes Cr Hawkins at the Chair, NSW Police, TNSW, Clayton Barr plus staff advisors from traffic and transports and development services
- Although there is a high speed limit allocated to Old Buttai Rd, there are many examples where there are advisory speed limits for sharp turns without changing the actual speed limit – could be managed through a traffic management plan and/or site briefings/tool box talks with drivers such as the 'Truck Driver Code of Conduct' that currently exists
- Councillors may be able to offer an alternative resolution or notice of motion at an upcoming Council meeting
- There are some issues with the sight lines of the existing alignment due to trees and undergrowth
- There wasn't any discussion with the original consent about the nature of the intersection, just the nature of the surface with sealing only required in front of two houses on the road
- Up to 200 vehicle movements can be supported without sealing the road
- If there are 240 truck movements (120 laden) the road would need to meet the engineering requirements for an unsealed road
- Traffic counts have been done on the road many times and that data is contained in the Traffic studies that are readily available.
- The traffic study shows that public vehicle usage along Old Buttai road is very low and the quarry vehicles make up the vast majority of vehicular movements
- The long term CCC members were perplexed by the notion that Old Buttai Road should have priority at the intersection with the quarry access road.



CCC position

The CCC have gone to great lengths over a long period of time to ensure Old Buttai Road is the only access to Buttai Quarry (now also including the RRF). This is the most sensible haul route because it has the least impact on the community.

The CCC agreed that priority should be given to the quarry vehicles not to residents as they rarely use Old Buttai Road. Their primary access has been Lings Road ever since a culvert was installed to alleviate water inundation. Residents only use the Old Buttai Road access when the culvert is flooded, which occurs infrequently.

The CCC indicated they would also make representations to Traffic Committee representative and Member for Cessnock Clayton Barr to advocate for this position.

The CCC extended an invitation to the Traffic Committee to attend the next CCC meeting and site visit which will be scheduled for October/November 2023.

[Meeting share file](#)



Agenda

BUTTAI QUARRY COMMUNITY CONSULTATIVE COMMITTEE

1.30pm to 3.30pm, Thursday 2 November 2023

Kurri Kurri Community Centre, 251 Lang Road, Kurri Kurri with Buttai Quarry site visit following the meeting.

Attendees

Terry Lewin	Community Representative
Colin East	Community Representative
Cr Rosa Grine	Cessnock City Councillor
Cr Mitchell Hill	Cessnock City Councillor (alternate)
Sue Page	Cessnock City Council
Luke Robinson	Daracon
John Canon	Daracon
Kate Baartz	Independent Facilitator (Baartz & Co)
Guests	Jules Bosco, Marc Hope (Planning)

Agenda items

1. Welcome, acknowledgement apologies
 - a Apologies: Janet Murray
2. Minutes from April 2023 meeting
Accepted
3. Actions arising from previous minutes

Action	Responsibility	Status
1. LR to advise when he has heard back from Cleanaway	LR	Complete with noted in draft minutes post meeting
2. OM to remind Cleanaway next time they are on site	OM	Complete with noted in draft minutes post meeting
3. SH to find out why JM didn't receive letter and will get documents uploaded to website	SH	Complete with noted in draft minutes post meeting

4. Update on Old Buttai Road following Extraordinary meeting

Notice of motion supported at the 18 October 2023 Council meeting

"That Council requests the traffic committee review the prioritisation of Old Buttai Road to focus on the primary route of travel to and from the Buttai Quarry, taking on board the feedback from the recent Buttai Quarry Community Consultative Committee meeting."

[Council meeting minutes](#) – see page 52



The Traffic Committee meeting is scheduled for 9.30am, 20 November 2023. James Hawkin is the Chair of the meeting.

TL – Provided an update on the discussion at the Council meeting,
JB – GM has delegated authority to sign off on the meeting decisions.
MH – Decision should be reported to the December Council meeting.

Action: SP to request to attend Traffic Committee as a guest

Note: Following the meeting SP requested if any external parties or members of the public were able to attend Traffic Committee. It was confirmed that the meeting is closed.

5. Daracon presentation

Presentation saved in [meeting share file](#)

LR provided an update on quarry operations advising the following

- the temporary DA for additional laden vehicles has been exceptionally helpful with the supply of materials to all our customers
- there have been seven blasts on site, likely to be a few more before the end of the year
- site inspections by regulators have occurred.
- air quality (dust deposition gauges) annual average needs to be below 4, and the results are consistently below that threshold
- noise monitoring was all good
- an ecologist continues to advise on clearing/habitat
- rehabilitation – top down planting has occurred and are still in place

100 laden trucks temporary DA

- commenced 7 June 2023
- no complaints about the additional movements
- have made a difference but there has been a slight slow down in the industry, although there are substantial projects likely to start soon.

Resource recovery facility (RRF)

- awaiting the outcome of the traffic committee regarding Old Buttai Rd upgrade
- explained the process for recycling materials, only accept materials that are suitable to crushing/recycling
- materials are rocks and dirt based eg bricks, gravel, concrete and sand, they are accepted from commercial operators only as detailed in the RRF consent
- materials arrive at the facility, are stockpiled and inspected then go through the crushers
- it's an in/out operation, products are not going to sit for an extended period

Ongoing operations

- business as usual, key projects are:



- Hexham Straights Widening – construction,
- Astra Street rehabilitation - construction,
- Inner City Bypass – supplier
- M1 upgrade – supplier

MH – depart 2.05pm

6. General business

NIL

7. Site visit attended by LR, KB, CE, TL, SP & MH

CE – Request for additional planting to occur on Bench 2 and 3 in autumn to supplement what's already been installed

ACTION: LR to follow up with the landscapers.

Actions arising

Action	Responsibility	Status
Request to attend Traffic Committee as a guest	SP	Actioned following meeting, meeting is closed.
Discuss additional planting with landscapers on bench 2 and 3	LR	In progress

[Meeting share file](#)

Appendix 3 2023 Community Complaints Register

2023 Complaint Register

<i>Date received</i>	<i>Complaint was received regarding?</i>	<i>Complaint was received from?</i>	<i>Buttai Gravel response</i>	<i>Buttai Gravel action following complaint</i>	<i>Closed out (Y/N)</i>
<i>April 2023</i>	<i>Cleanaway truck using Lings Rd</i>	<i>Community member</i>	<i>Cleanaway drivers re-familiarised with the correct access protocols for site</i>	<i>Site team to monitor all truck movements to ensure compliance with site access protocols</i>	<i>Y</i>

Appendix 4 Rehabilitation and vegetation Report



Our Ref: 23763_R01_Buttai Quarry 2023_Annual Rehabilitation Inspection_V2

25 January 2024

Luke Robinson
Systems Manager – Construction Materials
Daracon
20 Kullara Close
Beresfield NSW 2322

E | Luke.Robinson@daracon.com.au

Dear Luke

RE: Buttai Quarry 2023 Annual Rehabilitation Inspection

Umwelt was commissioned by Daracon Group (Daracon) to undertake the 2023 annual monitoring for the rehabilitation areas at Buttai Quarry, John Renshaw Drive, Buchanan NSW. Six areas were subject to inspection in this monitoring event. All established rehabilitated areas appeared to be in moderate health. Prolonged dry conditions in the latter half of 2023 have led to poor outcomes for most of the vegetation in the lower strata but more established canopy and upper mid storey species were in adequate condition.

1.0 Methods

The site inspection was undertaken over one day (25 October 2023) by a suitably qualified Ecologist and involved visual walkover inspection of the plantings within the Bench #2 and Bench #3 rehabilitation areas and Lot 76 eastern rehabilitation area and Lot 76 western rehabilitation area (and northern and southern areas of each). A walking traverse of each rehabilitated area was undertaken, with notes made on the following:

- Rapid vegetation assessment (dominant flora species in each stratum).
- High threat weed presence.
- Condition and health.
- Fauna utilisation (including direct observation and signs thereof).

Management recommendations have also been made where appropriate. All geographic co-ordinates in this report are provided in GDA94 MGA56 format.

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2.0 Results

Table 2.1 Lot 76 Western Rehabilitation (South End)

Site Name	Lot 76 Western Rehabilitation (South End)	
Form	Linear strip on bund	
Adjoining Native Vegetation?	Yes, to west	
Establishment Date	2017	
Monitoring Point Co-ordinates	365151, 6365644	
High Threat Weeds Present	Nil	
Other Exotics	Purpletop (<i>Verbena bonariensis</i>), Rhodes grass (<i>Chloris gayana</i>).	
General Description	Linear area of rehabilitated forest that occurs between access road at the top of quarry, and remnant vegetation. Quarrying is planned to continue to the north-east of this area and the bund has been extended to the north (see following table). This area has regenerated from stripped topsoil and displays high native diversity.	
Canopy Description	Height 1.5 – 8m. Canopy was dense prior to 2021, however since this time is now becoming thinner, dominated by spotted gum (<i>Corymbia maculata</i>), with occurrences of grey gum (<i>Eucalyptus punctata</i>), smooth-barked apple (<i>Angophora costata</i>), narrow-leaved ironbark (<i>Eucalyptus crebra</i>) and red ironbark (<i>Eucalyptus fibrosa</i>).	
Mid-storey/Shrub Layer Description	Height 0.5 – 3m. Mid-storey/shrub was dominated with Acacias such as green wattle (<i>Acacia decurrens</i>), silver-stemmed wattle (<i>Acacia parvipinnula</i>) and sickle wattle (<i>Acacia falcata</i>) in previous years however there has been increased dieback of these species. They do remain present, albeit in lower abundances or cover. Spiny bush-pea (<i>Pultenaea spinosa</i>) is also dying off however gorse bitter pea (<i>Daviesia ulicifolia</i>) is colonising the lower shrub layer.	
Ground Cover Description	Height 0.1 – 1.5m. Previously dominated by exotic grasses such as Rhodes grass (<i>Chloris gayana</i>), however these are dying off and are being replaced by the native wiry panic (<i>Entolasia stricta</i>). The only leguminous species observed was purple coral pea (<i>Hardenbergia violacea</i>).	
Health and Condition	This area is in moderate health. As observed in 2022, <i>Acacia</i> dieback is accelerating; however this is to be expected after the five-year mark since the rehabilitated area was established as <i>Acacia</i> species generally have a short lifespan. A large amount of <i>Acacia</i> seed was seen on the ground and this will facilitate the growth of the next generation of <i>Acacias</i> . A number of spotted gums had fallen over, and died back, likely a result of overcrowding (which is a natural self-thinning process). Evidence of fruiting, recruitment and new growth for both mid-storey and canopy species is also present, though there is dieback. No	

Site Name	Lot 76 Western Rehabilitation (South End)
	substantial erosion was noted in this area, however a small sinkhole (approximately 1-2m depth, seen in Photo 2.1) was found close to the access road (at co-ordinates 365169, 6365633).
Fauna Utilisation	An array of small woodland birds were seen and heard in the area. A silvereye (<i>Zosterops lateralis</i>) nest and macropod scats were observed.
Management Recommendations	Continue to use stripped topsoil for rehabilitation in the future. Sinkhole hazard should be marked so it can be avoided.

Photo 2.1 Sinkhole at Lot 76 Western Rehabilitation (South End)



Table 2.2 Lot 76 Western Rehabilitation (North End)


Site Name	Lot 76 Western Rehabilitation (North End)	
Form	Linear strip on bund	
Adjoining Native Vegetation?	Yes, to west	
Establishment date	2022	
Monitoring Point Co-ordinates	365271, 6365707	
High Threat Weeds Present	Tobacco plant (<i>Solanum mauritianum</i>).	
Other Exotics	Sow thistle (<i>Sonchus oleracea</i>), perennial rye grass (<i>Lolium perenne</i>), <i>Conyza</i> sp., spear thistle (<i>Cirsium vulgare</i>), <i>Senecio pterophorus</i> pigeon grass (<i>Setaria sphacelata</i>), Kikuyu (<i>Cenchrus clandestinus</i>), white clover (<i>Trifolium repens</i>) and proliferous pink (<i>Petrorhagia nanteuilii</i>).	
General Description	Bund that forms an extension of Lot 76 Western Rehabilitation (Southern End) towards the north. Bund has been shaped and seeded with a native shrub and tree mix that includes a cover crop of perennial rye grass (<i>Lolium perenne</i>). Stripped topsoil has also been used over the bund.	
Canopy Description	Nil.	
Mid-storey/Shrub Layer Description	Height 0.3m – 1.4m. Green wattle (<i>Acacia decurrens</i>), and sickle wattle (<i>Acacia falcata</i>) starting to emerge. Some juvenile Eucalypts emerging.	
Ground Cover Description	Height 0.1 – 0.5m. Dominated by exotic species such as pigeon grass (<i>Setaria sphacelata</i>), Kikuyu (<i>Cenchrus clandestinus</i>), white clover (<i>Trifolium repens</i>) and proliferous pink (<i>Petrorhagia nanteuilii</i>). Native species include cut-leaf daisy (<i>Brachyscome multifida</i>) and kidney weed (<i>Dichondra repens</i>).	
Health and Condition	This area is very dry. There is evidence that the bund was well colonised by grasses at a previous point in time, but these have died back and the bund is now colonised by hardier, more undesirable exotic species. The vegetation is healthier in swales where moisture is retained, however there are large patches of bare ground.	
Fauna Utilisation	Macropod scats, rabbit scats. Grazing is evident.	
Management Recommendations	This area may benefit from periodic watering. Continue to use stripped topsoil for rehabilitation in the future.	

Table 2.3 Lot 76 Eastern Rehabilitation (South End)


Site Name	Lot 76 Eastern Rehabilitation (South End)	
Form	Linear strip on bund	
Adjoining Native Vegetation?	Yes, to east	
Establishment date	Prior to 2017	
Monitoring Point Co-ordinates	365131, 6365262	
High Threat Weeds Present	Lantana (<i>Lantana camara</i>) and pampas grass (<i>Cortaderia selloana</i>) – though control appears to have been successful.	
Other Exotics	Purpletop (<i>Verbena bonariensis</i>), Rhodes grass (<i>Chloris gayana</i>).	
General Description	Linear area of rehabilitated forest adjoining remnant vegetation at the eastern edge of the quarry. The southern half of the rehabilitated bund has a dense canopy, while the northern half has a more open canopy.	
Canopy Description	Height 1.3 – 7m. Canopy is healthy, dominated by grey gum (<i>Eucalyptus punctata</i>), spotted gum (<i>Corymbia maculata</i>) and red ironbark (<i>Eucalyptus fibrosa</i>).	
Mid-storey/Shrub Layer Description	Height 0.5 – 2.5m. Mid-storey is dominated with Acacias such as green wattle (<i>Acacia decurrens</i>), silver-stemmed wattle (<i>Acacia parvipinnula</i>) and sickle wattle (<i>Acacia falcata</i>), though some are dying back. The native rosella (<i>Hibiscus heterophyllus</i>) observed in 2022 is no longer present. Spiny bush-pea (<i>Pultenaea spinosa</i>) and gorse bitter pea (<i>Daviesia ulicifolia</i>) are colonising the lower shrub layer.	
Ground Cover Description	Height 0.1 – 1m. Ground cover has largely died back and is very dry. Persistent species include Rhodes grass (<i>Chloris gayana</i>) and fishweed (<i>Einadia trigonos</i>). The only leguminous species observed this year was purple coral pea (<i>Hardenbergia violacea</i>).	
Health and Condition	The canopy in this area is in good health, though there has been significant dieback in the mid and ground layers, likely due to the dry conditions. There are patches of bare ground, and some cracking of the soil. It is likely that this area will recover after a period of rain. No substantial erosion was recorded in the area.	
Fauna Utilisation	An array of small woodland birds were seen and heard in the area, along with macropod scats. Large ant nests were recorded, and these will promote bioturbation of the soil.	
Management Recommendations	Follow-up high threat weed control if necessary.	

Table 2.4 Lot 76 Eastern Rehabilitation (North End)


Site Name	Lot 76 Eastern Rehabilitation (North End)	
Form	Linear strip on bund	
Adjoining Native Vegetation?	Yes, to east	
Establishment date	2022	
Monitoring Point Co-ordinates	365254, 6365426	
High Threat Weeds Present	Lantana (<i>Lantana camara</i>), golden wreath wattle (<i>Acacia saligna</i>), pampas grass (<i>Cortaderia selloana</i>).	
Other Exotics	Sow thistle (<i>Sonchus oleraceus</i>), veined verbena (<i>Verbena rigida</i>), proliferous pink (<i>Petrorhagia nanteuilii</i>), cats ear (<i>Hypochaeris radicata</i>), kikuyu (<i>Cenchrus clandestinus</i>), purpletop (<i>Verbena bonariensis</i>) and balloon cotton (<i>Gomphocarpus fruticosus</i>).	
General Description	Newly shaped bund that forms an extension of Lot 76 Eastern Rehabilitation (South End) to the north. This area has been sowed with native topsoil. It has been largely colonised by exotics and grasses with some native mid-storey species emerging.	
Canopy Description	Nil	
Mid-storey/Shrub Layer Description	Height 0.5 – 2.5m Minor occurrence of green wattle (<i>Acacia decurrens</i>). Some <i>Acacia saligna</i> which requires control.	
Ground Cover Description	Height 0.1 – 1m Grasses such as kikuyu (<i>Cenchrus clandestinus</i>) and couch (<i>Cynodon dactylon</i>) dominate, with co-occurrence of exotics such as purpletop (<i>Verbena bonariensis</i>) and balloon cotton (<i>Gomphocarpus fruticosus</i>). Some instances as native forbs such as star cudweed (<i>Euchiton involucratus</i>) and Indian weed (<i>Sigesbeckia orientalis</i>).	
Health and Condition	Vegetation is somewhat dry, though the ground has been well colonised. Native diversity is very low at this site.	
Fauna Utilisation	Multiple brown quail (<i>Coturnix ypsilophora</i>) were observed in the ground layer.	
Management Recommendations	Tubestock plantings may be recommended if canopy species do not emerge by next monitoring event.	

Table 2.5 Bench #2 (Upper Bench)



Site Name	Bench #2 (Upper Bench)	
Form	Linear strip along bench	
Adjoining Native Vegetation?	No direct adjoining vegetation.	
Establishment date	2013, additional plantings in 2023	
Monitoring Point Co-ordinates	364974, 6365205	
High Threat Weeds Present	Golden wreath wattle (<i>Acacia saligna</i>) towards the northern entrance to the bench	
Other Exotics	Nil	
General Description	Strip of planted vegetation along upper bench of southern side of the quarry. Growth pattern is slightly patchy, with some sparse areas and others densely vegetated. Bench faces north-west and is very exposed, particularly to mid-afternoon sun.	
Canopy Description	Height 1 – 6m. Canopy is open and is dominated by grey gum (<i>Eucalyptus punctata</i>), spotted gum (<i>Corymbia maculata</i>), forest she-oak (<i>Allocasuarina torulosa</i>) and swamp mahogany (<i>Eucalyptus robusta</i>), which was fruiting profusely at the time of survey.	
Mid-storey/Shrub Layer Description	Height 0.3 – 3m. Mid-storey is dominated by emerging Acacias such as green wattle (<i>Acacia decurrens</i>), swamp wattle (<i>Acacia elongata</i>) and sickle wattle (<i>Acacia falcata</i>). Forest she-oak (<i>Allocasuarina torulosa</i>) was emerging from the seedbank, though the two <i>Pultenaea</i> species from 2022 had died back.	
Ground Cover Description	Height 0.1 – 1m. There was little living ground cover on this bench. “Top down” plantings of dusky coral pea (<i>Kennedia rubicunda</i>) and purple coral pea (<i>Hardenbergia violacea</i>) had been planted in April 2023, and were in poor condition at the time of monitoring – grazing and exposure have contributed to dieback of these species. There was evidence that the bench had previously been colonised in parts by Rhodes grass (<i>Chloris gayana</i>) however this was all senescent at the time of monitoring due to the dry conditions.	
Health and Condition	Established plantings are showing signs of active growth with a high proportion of the canopy and mid-storey species are flowering and fruiting. There has been dieback in the ground layer due to hot and dry conditions. There is a large and prominent erosion rill at the far west end of the bench, however this is a known issue and is being stabilised by <i>Acacia</i> species.	
Fauna Utilisation	Macropod scats present. Grazing evident, bandicoot diggings and woodland birds observed.	
Management Recommendations	Follow-up weed control of <i>Acacia saligna</i> is recommended. If surplus stripped topsoil is available, it would be worthwhile spreading on some of the sparser areas along Bench #2 to promote growth. Mulch may be another alternative to help retain moisture and build a soil profile.	

Table 2.6 Bench #3 (Lower Bench)

Site Name	Bench #3 (Lower Bench)	
Form	Linear strip along bench	
Adjoining Native Vegetation?	No direct adjoining vegetation.	
Establishment date	2015 (additional plantings in 2016, 2018, 2020 and 2022).	
Monitoring Point Co-ordinates	364935, 6365195	
High Threat Weeds Present	Golden wreath wattle (<i>Acacia saligna</i>) towards the northern entrance to the bench.	
Other Exotics	Rhodes grass (<i>Chloris gayana</i>).	
General Description	Strip of planted vegetation along upper bench of southern side of the quarry. Growth pattern is quite patchy. Bench faces north-west and is very exposed, particularly to mid-afternoon sun. Supplementary plantings have been made across many years with variable success rates due to the aspect.	
Canopy Description	Height 1 – 5m. Open canopy is dominated by grey gum (<i>Eucalyptus punctata</i>), spotted gum (<i>Corymbia maculata</i>), narrow-leaved ironbark (<i>Eucalyptus crebra</i>) and rough-barked apple (<i>Angophora floribunda</i>). Some dieback observed. Mistletoe (<i>Amyema</i> sp.) present.	
Mid-storey/Shrub Layer Description	Height 1 – 3m. Sparse mid-storey dominated with Acacias such as green wattle (<i>Acacia decurrens</i>) and sickle wattle (<i>Acacia falcata</i>), with some hickory wattle (<i>Acacia implexa</i>). A high number of species were producing seed.	
Ground Cover Description	Height 0.1 – 1m. Ground cover is very sparse and experiencing dieback, with a variety of both native and exotic species. These include Rhodes grass (<i>Chloris gayana</i>), kidney weed (<i>Dichondra repens</i>), couch (<i>Cynodon dactylon</i>), though little has persisted in the dry conditions.	
Health and Condition	The canopy continues to exhibit some noticeable gaps, though established plantings are doing well. Plantings in these gaps have been moderately successful, though growth has been slow given the exposed western aspect of the bench. Older plantings are doing well, however some of the newer tubestock have been browsed by grazing mammals. Some mistletoes are present in Eucalypt species, and most canopy species were showing signs of active growth. Ground cover is in poor condition due to the dry conditions.	
Fauna Utilisation	Superb fairy wrens (<i>Malurus cyaneus</i>) were observed in the area, macropod scats recorded.	
Management Recommendations	Continue to monitor the success of plantings. Weed control of <i>Acacia saligna</i> is recommended. Tubestock planting or seeding of sticky hop bush (<i>Dodonaea viscosa</i> subsp. <i>cuneata</i>) is an alternate suggestion to “top down” plantings above this bench to aid in screening the bench wall for visual amenity. Sticky hop bush is a locally abundant native shrub (to 4m height) that thrives in full sun and poor soils that may assist with the screening issue. This plant is a pioneer species and may provide some protection from the exposed aspect to assist the growth of other species on this bench.	

3.0 Discussion and Management Recommendations

The rehabilitated areas at Buttai Quarry appear to be in moderate health, with a slight decline from 2022 in terms of native diversity. The prolonged dry conditions in the latter half of 2023 have likely contributed to this result. The closest weather station (Belmore Bridge, Maitland) experienced over 1200mm of rain in 2022, whereas in 2023 this same station recorded just 600mm, which is a reduction by half (BOM 2024). The Combined Drought Indicator for the Stockrington Parish of the Hunter Region (see Figure 3.1) indicates that in July 2023, the region moved from “Non-Drought” to “Drought-Affected (Intensifying)” and since October 2023 there have been periods where the region has been in “Drought”. The Rainfall Index plummeted sharply in July 2023, with the Soil Water and Plant Growth Index slowly following shortly thereafter. Lack of rainfall or soil moisture will have contributed to dieback of plants with shallower root systems such as groundcovers, which is consistent with conditions observed at Buttai Quarry.

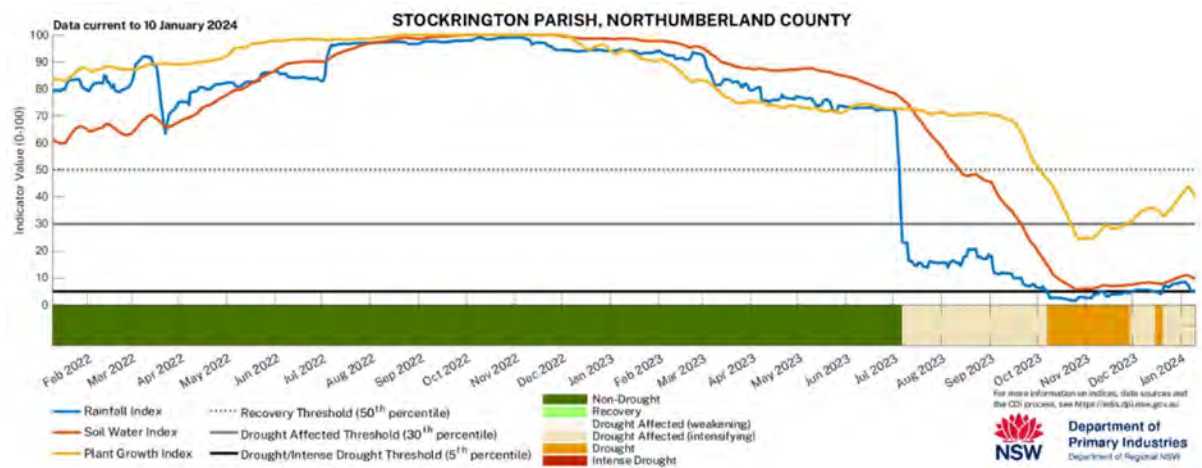


Figure 3.1 Combined Drought Indicator for the Stockrington Parish, Hunter Region NSW (DPI 2024)

Established vegetation in mid and upper storeys seemed to be in moderate to good condition, with some natural senescence occurring (e.g. *Acacia* dieback due to short lifespan). Ground covers and lower mid-storey species seemed to be experiencing the effects of the drier conditions more acutely, with more dieback observed in these strata. Similar outcomes were observed in remnant vegetation adjacent to the rehabilitated areas.

Natural regeneration has historically been most prolific in Lot 76 Eastern Rehabilitation (South End) and Lot 76 Western Rehabilitation (South End), and this is likely due to the natural stripped topsoil that was spread on the rehabilitated areas. These areas are starting to naturally self-thin and move towards a density that is closer to that of a natural forest.

Recently shaped bunds spread with native topsoil at Lot 76 Eastern Rehabilitation (North End) and Lot 76 Western Rehabilitation (North End) have the lowest native diversity and were dominated by exotic species at the time of 2023 monitoring survey.

Future management recommendations include:

- Future monitoring events should continue to utilise fixed photo monitoring points for future comparison.

- Some occurrences of lantana (*Lantana camara*) were recorded in Lot 76 Eastern Rehabilitation (South End) and Lot 76 Eastern Rehabilitation (North End), golden wreath wattle (*Acacia saligna*) on Lot 76 Eastern Rehabilitation (North End), Bench #2 and #3, pampas grass (*Cortaderia selloana*) on Lot 76 Eastern Rehabilitation (South End) and Lot 76 Eastern Rehabilitation (North End), and tobacco plant (*Solanum mauritianum*) on Lot 76 Western Rehabilitation (North End). It is recommended that these infestations are controlled while they are small.
- The bund at Lot 76 Eastern Rehabilitation (North End) should be monitored closely to ensure that canopy and mid-storey species emerge, as this site currently has very low native diversity and is dominated by exotic species. Tubestock planting may be recommended if native diversity does not improve.
- The sinkhole at Lot 76 Western Rehabilitation (South End) should be marked so that humans can avoid this hazard.
- It is recommended that periodic watering of the rehabilitated areas should be conducted in times of low rainfall. Dry weather conditions in the latter half of 2023 have led to poor groundcover condition in the rehabilitated areas.
- Stripped topsoil should be used on future rehabilitation areas, where possible. The existing rehabilitation areas that have used this method have retained much more native and diverse understorey than the areas that have not had natural topsoil spread.
- Mulch may be spread on Bench #3 and/or Bench #2 to help build the soil profile and retain soil moisture.
- Seeding or tubestock planting of sticky hop-bush (*Dodonaea viscosa* subsp. *cuneata*) on Bench #3 may help with screening and visual amenity.

4.0 Conclusion

We trust this information meets with your current requirements. Please do not hesitate to contact me on 0436 626 231 should you require clarification or further information.

Yours sincerely



Amber Wilson
Senior Ecologist

5.0 References

Bureau of Meteorology (BOM) 2024. *Climate Data Online*. Australian Government Bureau of Meteorology. <http://www.bom.gov.au/> accessed January 2024.

Department of Primary Industries (DPI) 2024. *Weekly Parish Update - Seasonal Conditions Information Portal*. NSW Government. <https://edis.spaceport-dev.intersect.org.au/%2FWeekly%20Parish%20Update> accessed January 2024.

Appendix 5 Images of Quarry

Panoramic image of Buttai Quarry (looking generally north) – March 2023



Panoramic image of Buttai Quarry (looking generally south) - September 2023



Rehabilitation images of the quarry (Lings Rd and quarry site) – April 2023

Rehabilitation images of the quarry (Lings Rd and quarry site) – November 2023

Buttai Quarry Bench #3 rehabilitation – March 2032***Buttai Quarry Bench #3 rehabilitation – September 2023***

Buttai Quarry stockpile area – March 2023***Buttai Quarry operational pit area – September 2023***

Aerial photograph of Buttai Quarry – October 2023

Aerial photograph of Buttai Quarry – December 2022

Aerial photograph of Buttai Quarry – December 2021

Aerial photograph of Buttai Quarry – September 2020

Aerial photograph of Buttai Quarry – December 2019

Aerial photograph of Buttai Quarry – December 2018

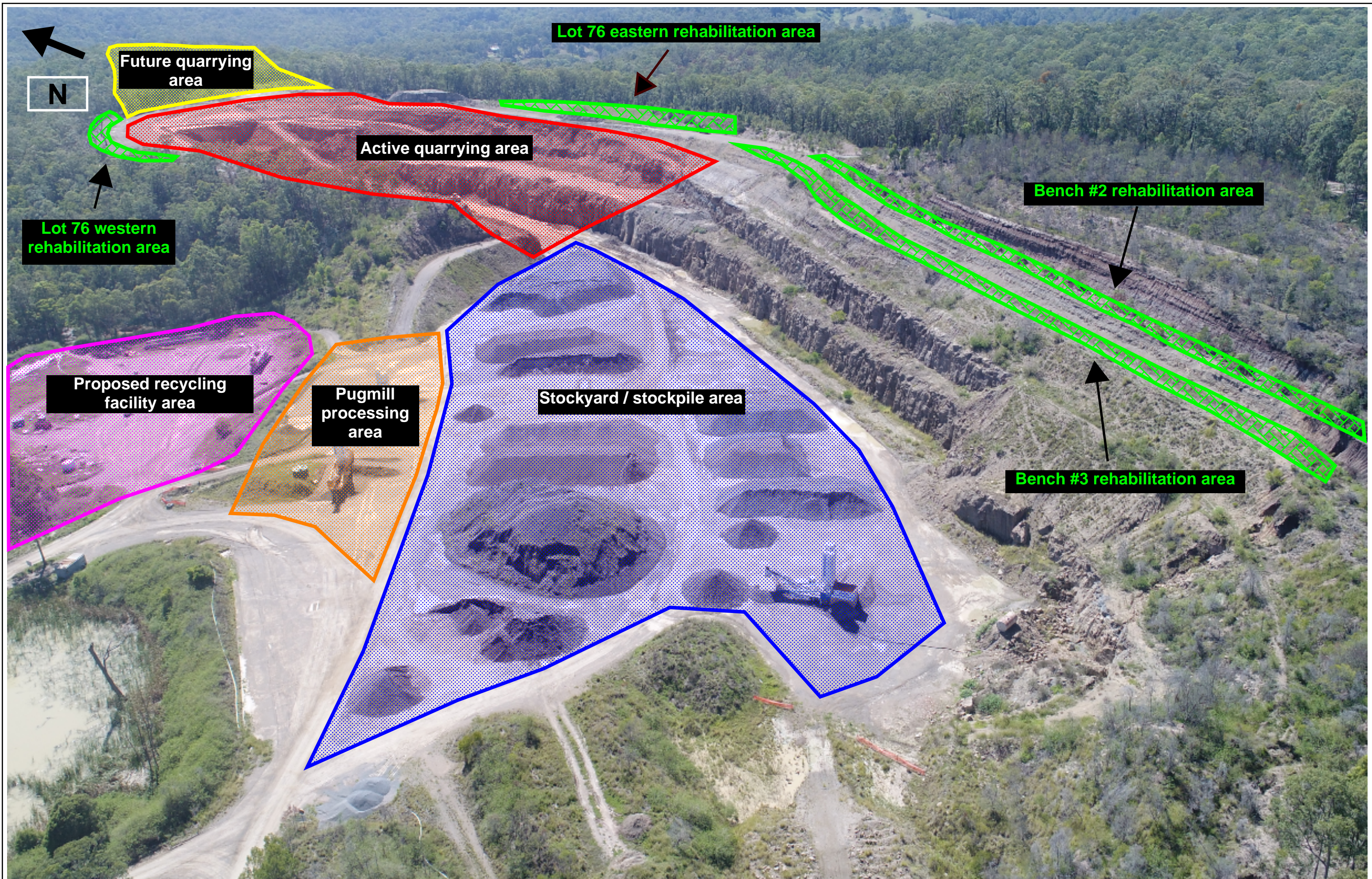
Aerial photograph of Buttai Quarry – December 2017

Aerial photograph of Buttai Quarry – January 2017

Aerial photograph of Buttai Quarry – November 2015

Aerial photograph of Buttai Quarry – September 2014

Appendix 6 Annotated quarry layout image



Appendix 7 100 laden truck per day temporary DA reporting records

Sarah Hyatt
Cessnock City Council
62 – 78 Vincent St
Cessnock NSW
2325

22nd September 2023

To Sarah,

RE: Buttai Gravel, Buttai quarry – Quarterly report for DA No. 8/2023/217/1

Please see below a summary of the relevant information required for the quarterly report in accordance with DA No. 8/2023/217/1. This quarterly report applies to the period from the 7th June 2023 to the 7th September 2023.

In accordance with the conditions of DA No. 8/2023/217/1, we're reporting the following information:

- Records of truck movements – Appendix 1 includes a Table that includes all the laden truck movements for the reporting period. All laden truck movements recorded for the period are compliant with the DA;
- Results of noise monitoring - Appendix 2 includes a copy of the relevant noise monitoring report for the reporting period;
- Results of air quality monitoring - Appendix 3 includes a copy of the relevant air quality monitoring report for the reporting period, bearing in mind there's a lag between when the Dust Deposition Gauges (DDG) are collected and reported. Any subsequent DDG results will therefore be reported in the next quarterly report as they're received;
- Public complaints register – Appendix 4 includes the complaints register for the reporting period;

Should you have any further queries, please don't hesitate to contact the undersigned.

Yours sincerely



Luke Robinson
Systems Manager – Construction Materials
Buttai Gravel Pty Ltd (Daracon Quarries)
0417 481 785

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21 Martin Road, Gunnedah NSW 2380
PO Box 767 Gunnedah NSW 2380
P 02 6742 4977

Appendix 1 – Truck movements for the reporting period

<u>Laden truck movements from Buttai quarry for the period 7/6/23 to 7/9/23</u>	
Date	Laden truck count
7-Jun	88
8-Jun	87
9-Jun	77
14-Jun	20
15-Jun	23
16-Jun	11
19-Jun	37
20-Jun	39
21-Jun	63
22-Jun	86
23-Jun	40
26-Jun	71
27-Jun	70
28-Jun	54
29-Jun	44
30-Jun	73
3-Jul	59
4-Jul	28
5-Jul	58
6-Jul	58
7-Jul	58
10-Jul	44
11-Jul	84
12-Jul	53
13-Jul	76
14-Jul	39
17-Jul	39
18-Jul	53
19-Jul	58
20-Jul	58
21-Jul	35
25-Jul	83
26-Jul	98
27-Jul	75
28-Jul	78
31-Jul	41
1-Aug	46
2-Aug	78
3-Aug	86
4-Aug	85
7-Aug	12
8-Aug	22

9-Aug	56
10-Aug	26
11-Aug	33
14-Aug	1
15-Aug	4
16-Aug	32
17-Aug	89
18-Aug	36
21-Aug	74
22-Aug	78
23-Aug	25
24-Aug	28
25-Aug	67
26-Aug	15
28-Aug	32
29-Aug	35
30-Aug	36
31-Aug	29
1-Sep	45
4-Sep	42
5-Sep	64
6-Sep	67
7-Sep	40

Appendix 2 – Noise monitoring report for the reporting period



21 August 2023

Ref: 10586/30092

Daracon Quarries Pty Ltd
PO Box 299
WALLSEND NSW 2287

RE: AUGUST 2023 ATTENDED NOISE MONITORING RESULTS – BUTTAI QUARRY

This letter report presents the results of attended noise monitoring conducted for the Buttai Quarry (BQ) on Thursday 17th of August, 2023. Noise monitoring was carried out in accordance with the conditions of the BQ Noise Management Plan (NMP) as shown in extract below.

6.4 NOISE MANAGEMENT PLAN

6.4.1 Objectives

- to ensure that quarry operations do not give rise to 'offensive noise';
- to minimise the impact of noise on surrounding residents;
- to meet the relevant noise criteria applicable to quarry operations as detailed in conditions of consent (under neutral conditions when measured within a radius of 30 metres):

an LA10 (15 minute) of 38dBA (daytime)

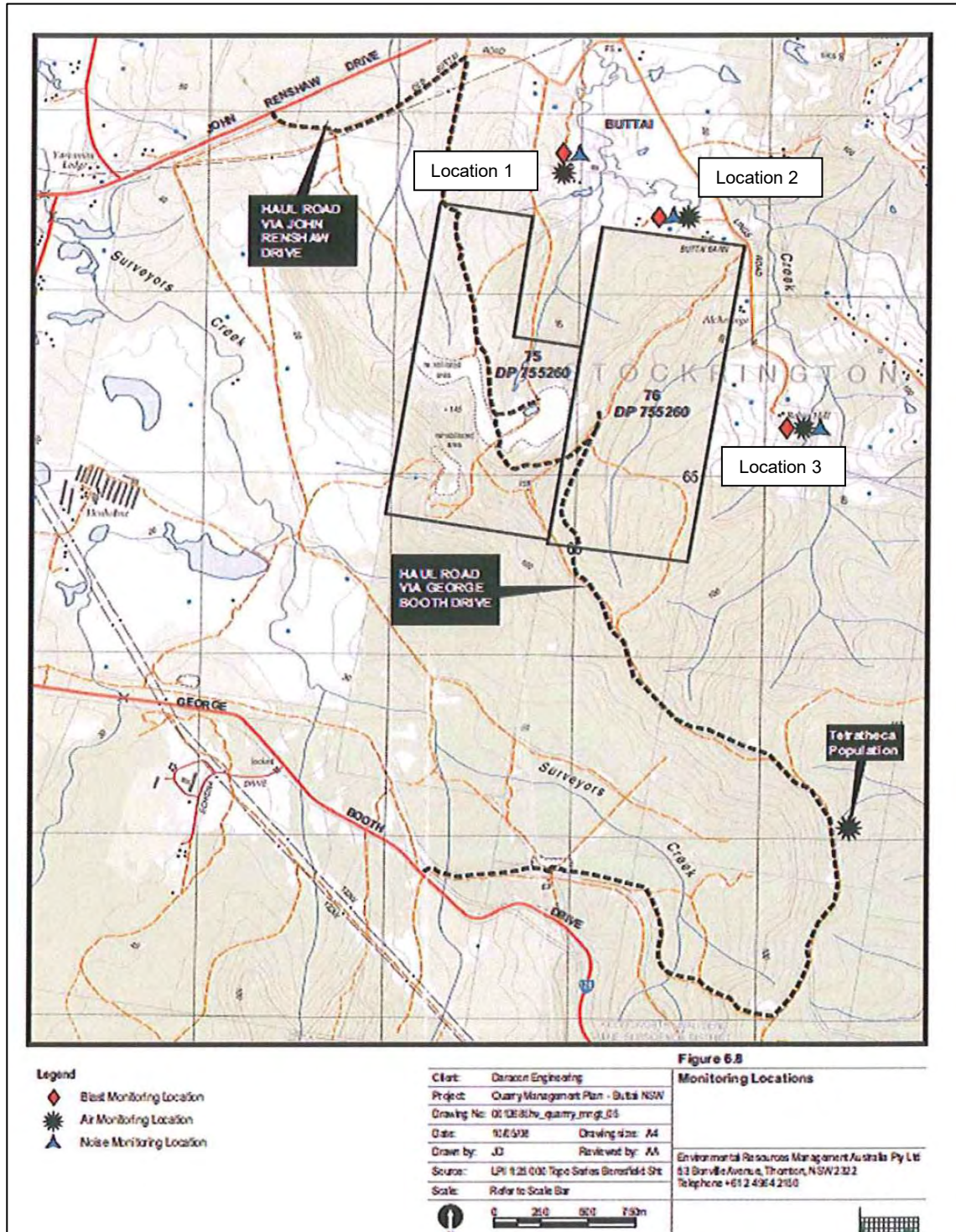
an LA10 (15 minute) of 32 dBA (night time)

noise of traffic associated with the quarry operations shall not exceed an Laeq (1 hour) of 50dBA when measured or computed at the façade of any dwelling.

NOISE MONITORING LOCATIONS

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

- Location 1: Brooks, 45 Old Buttai Road
Location 2: Maddison (Buttai Barn), 160 Lings Road
Location 3: Bishop, 281 Lings Road



NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2260 Precision Sound Analyser. This instrument has Type 1 characteristics as defined in AS1259-1982 “Sound Level Meters”. Calibration of the instrument 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 mild with clear skies and the winds were light from the north.

The following plant and equipment were working on the day that the monitoring was being undertaken;

- 2 x Caterpillar 30T excavators
- 2 x Volvo loaders
- 1 x Caterpillar loader
- 1 x Watercart
- 1 x Impact crusher
- 1 x Cone crusher
- 1 x Stacker
- 1 x Water pump intermittently
- 1 x Genset
- Limited quantity of laden truck movements
- Various light vehicle movements

RESULTS

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 L10, Leq (15 min), Lmax, L1, L90 and Lmin percentiles. As detailed in the NMP the noise criterion for BQ during the day is based on an L10 noise level.

The results shown in **Table 1**, below, represent the total 15 minute L10 noise level for all noise sources. Noise from BQ is shown in bold type. Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request.

Table 1 Buttai Quarry Noise Monitoring Results – 17 August 2023				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	11:32 am	39	2.5 m/s N	Birds (36), traffic (36), BQ (24)
2	10:50 am	36	2.5 m/s N	Birds (33), traffic (32), BQ (22)
3	11:10 am	36	1.9 m/s N	Birds & frogs (35), BQ (27)

At Location 1, the noise from BQ was general hum and occasional revs from mobile plant.

At Location 2, the noise from BQ was inconsistent and audible as general hum and occasional revs from mobile plant.

At Location 3, the noise from BQ was relatively consistent throughout the monitoring period. It was audible as a general hum with occasional engine revs from mobile plant on site. Noise from crushing and screening was also audible occasionally.

The results shown in Table 1 show that, under the operational and atmospheric conditions at the time of monitoring, noise emissions from BQ were inaudible at monitoring locations.

The measured noise levels were, therefore, in compliance with the applicable noise conditions detailed in the NMP.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 0412 023 455.

Yours faithfully,
SPECTRUM ACOUSTICS PTY LIMITED



Ross Hodge M.A.A.S.
Acoustical Consultant

Appendix 3 – Air quality monitoring report for the reporting period

Buttai Quarry EPL #12829 - Dust Deposition Gauges (g/m²/mth)					
Date / Site	D1 - Tetratheca	D2 - Norma	D3 - Buttai Barn	D4 - Bishop	D5- Buttai Barn 2
04/07/23 to 01/08/23	0.6	0.4	5.6	0.7	0.3
01/08/23 to 29/08/23	0.6	0.8	2	0.9	0.5

Appendix 4 – Complaints register for the reporting period

<i>Date received</i>	<i>Complaint was received regarding?</i>	<i>Complaint was received from?</i>	<i>Buttai Gravel response</i>	<i>Buttai Gravel action following complaint</i>	<i>Closed out (Y/N)</i>
Nil	N/A				

Sue Page / Sarah Hyatt
Cessnock City Council
62 – 78 Vincent St
Cessnock NSW
2325

15th January 2024

To Sue and Sarah,

RE: Buttai Gravel, Buttai quarry – Quarterly report for DA No. 8/2023/217/1

Please see below a summary of the relevant information required for the quarterly report in accordance with DA No. 8/2023/217/1. This quarterly report applies to the period from the 7th September 2023 to the 7th December 2023.

In accordance with the conditions of DA No. 8/2023/217/1, we're reporting the following information:

- Records of truck movements – Appendix 1 includes a Table that includes all the laden truck movements for the reporting period. All laden truck movements recorded for the period are compliant with the DA;
- Results of noise monitoring - Appendix 2 includes a copy of the relevant noise monitoring report for the reporting period;
- Results of air quality monitoring - Appendix 3 includes a copy of the relevant air quality monitoring report for the reporting period, bearing in mind there's a lag between when the Dust Deposition Gauges (DDG) are collected and reported. Any subsequent DDG results will therefore be reported in the next quarterly report as they're received;
- Public complaints register – Appendix 4 includes the complaints register for the reporting period;

Should you have any further queries, please don't hesitate to contact the undersigned.

Yours sincerely



Luke Robinson
Systems Manager – Construction Materials
Buttai Gravel Pty Ltd (Daracon Quarries)
0417 481 785

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21 Martin Road, Gunnedah NSW 2380
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P 02 6742 4977

Appendix 1 – Truck movements for the reporting period

<u>Laden truck movements from Buttai quarry for the period 07/09/23 to 07/12/23</u>	
Date	Laden truck count
7-Sep	40
8-Sep	20
11-Sep	41
12-Sep	65
13-Sep	70
14-Sep	44
15-Sep	43
18-Sep	17
19-Sep	44
20-Sep	24
21-Sep	43
22-Sep	63
25-Sep	44
26-Sep	51
27-Sep	33
28-Sep	14
4-Oct	14
5-Oct	48
6-Oct	68
9-Oct	72
10-Oct	68
11-Oct	31
12-Oct	48
13-Oct	44
16-Oct	63
17-Oct	49
18-Oct	91
19-Oct	83
20-Oct	50
23-Oct	47
24-Oct	78
25-Oct	53
26-Oct	20
27-Oct	15
30-Oct	71
31-Oct	89
1-Nov	94
2-Nov	65

3-Nov	46
7-Nov	47
8-Nov	50
9-Nov	42
10-Nov	7
13-Nov	13
14-Nov	55
15-Nov	32
16-Nov	61
17-Nov	16
20-Nov	74
21-Nov	92
22-Nov	66
23-Nov	85
24-Nov	70
25-Nov	32
27-Nov	87
28-Nov	74
29-Nov	28
30-Nov	99
1-Dec	100
4-Dec	99
5-Dec	98
6-Dec	100
7-Dec	99

Appendix 2 – Noise monitoring report for the reporting period



9 January 2024

Ref: 10586/10169

Daracon Quarries Pty Ltd
PO Box 299
WALLSEND NSW 2287

RE: NOVEMBER 2023 ATTENDED NOISE MONITORING RESULTS – BUTTAI QUARRY

This letter report presents the results of attended noise monitoring conducted for the Buttai Quarry (BQ) on Wednesday 22nd of November, 2023. Noise monitoring was carried out in accordance with the conditions of the BQ Noise Management Plan (NMP) as shown in extract below.

6.4 NOISE MANAGEMENT PLAN

6.4.1 Objectives

- to ensure that quarry operations do not give rise to 'offensive noise';
- to minimise the impact of noise on surrounding residents;
- to meet the relevant noise criteria applicable to quarry operations as detailed in conditions of consent (under neutral conditions when measured within a radius of 30 metres):

an LA10 (15 minute) of 38dBA (daytime)

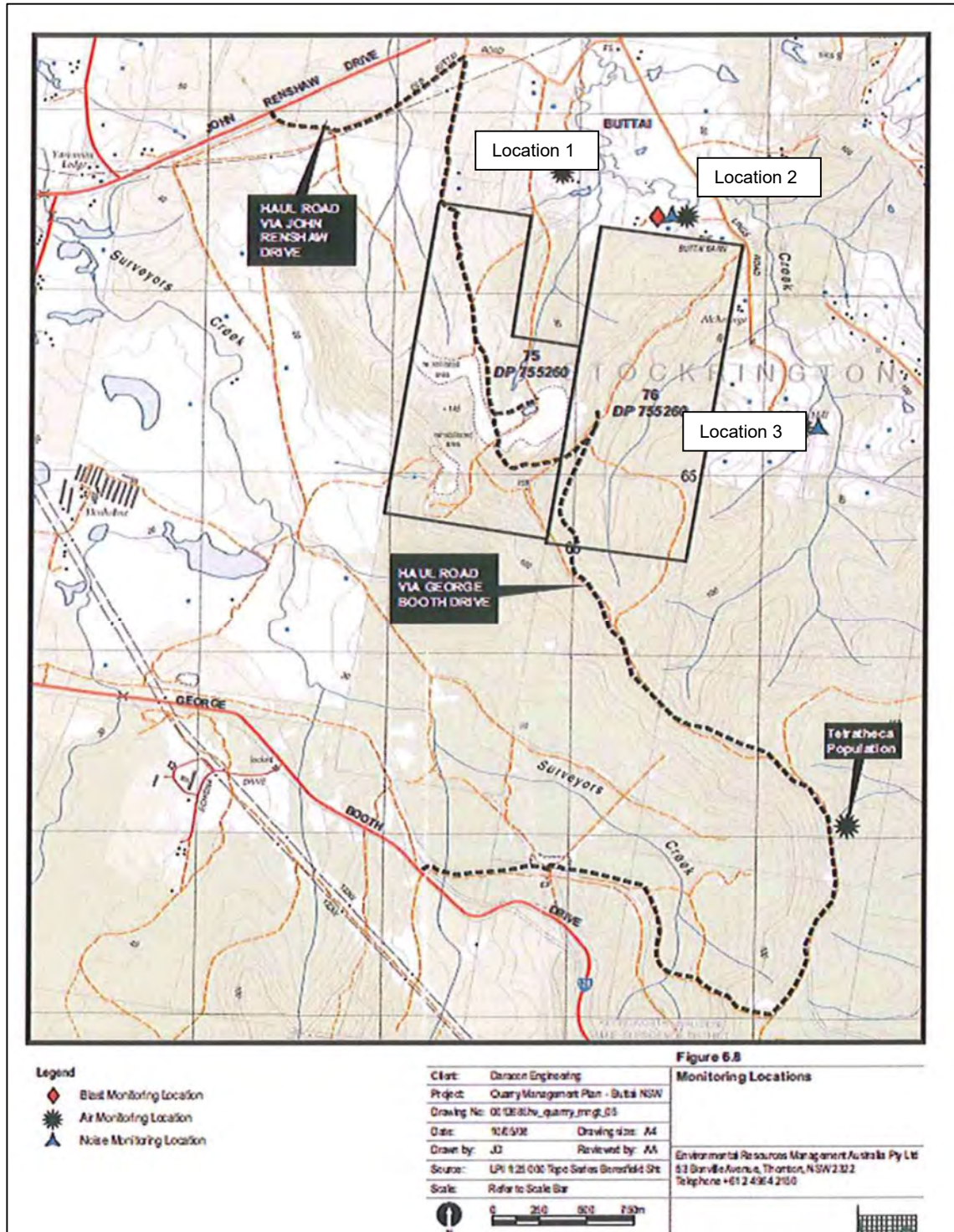
an LA10 (15 minute) of 32 dBA (night time)

noise of traffic associated with the quarry operations shall not exceed an Laeq (1 hour) of 50dBA when measured or computed at the façade of any dwelling.

NOISE MONITORING LOCATIONS

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

- Location 1: Brooks, 45 Old Buttai Road
 Location 2: Maddison (Buttai Barn), 160 Lings Road
 Location 3: Bishop, 281 Lings Road



NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2250 Precision Sound Analyser. This instrument has Type 1 characteristics as defined in AS1259-1982 “Sound Level Meters”. Calibration of the instrument 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 mild with hazy skies. The winds were moderate from the southwest.

The following plant and equipment was working on the day that the monitoring was being undertaken;

- 1x impact crusher;
- 1x stacker making clay capping;
- 3x loaders;
- 2x 30t excavators;
- 1x watercart;
- 66 truck and dogs out the gate;

RESULTS

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 L10, Leq (15 min), Lmax, L1, L90 and Lmin percentiles. As detailed in the NMP the noise criterion for BQ during the day is based on an L10 noise level.

The results shown in **Table 1**, below, represent the total 15 minute L10 noise level for all noise sources. Noise from BQ is shown in bold type. Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request.

Table 1 Buttai Quarry Noise Monitoring Results – 22 November 2023				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	11:30 am	41	3.5 m/s SW	Birds & insects (40), traffic (34), BQ inaudible (<20)
2	11:50 am	38	2.5 m/s SW	Birds & insects (36), traffic (33), BQ inaudible (<20)
3	12:15 am	39	3.0 m/s SW	Birds & insects (39), traffic (26), BQ inaudible (<20)

The results shown in Table 1 show that, under the operational and atmospheric conditions at the time of monitoring, noise emissions from BQ were inaudible at all monitoring locations. The operation of BQ was, therefore, in compliance with the applicable noise conditions detailed in the NMP.

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



Neil Pennington MAIP, MAAS, MASA
B. Sc., B.Math. (Hons)
Principal / Director

Appendix 3 – Air quality monitoring report for duration of the consent

Buttai Quarry EPL #12829 - Dust Deposition Gauges (g/m²/mth)					
Date / Site	D1 - Tetratheca	D2 - Norma	D3 - Buttai Barn	D4 - Bishop	D5- Buttai Barn 2
04/07/23 to 01/08/23	0.6	0.4	5.6	0.7	0.3
01/08/23 to 29/08/23	0.6	0.8	2	0.9	0.5
29/08/23 to 26/09/23	0.7	1.4	1.7	0.9	0.7
26/09/23 to 24/10/23	0.8	0.9	1.1	0.9	0.9
24/10/23 to 21/11/23	0.3	1	0.6	0.7	0.5
21/11/23 to 19/12/23	1.6	0.3	0.6	0.4	0.7

Appendix 4 – Complaints register for the reporting period

<i>Date received</i>	<i>Complaint was received regarding?</i>	<i>Complaint was received from?</i>	<i>Buttai Gravel response</i>	<i>Buttai Gravel action following complaint</i>	<i>Closed out (Y/N)</i>
Nil	N/A				