



BUTTAI QUARRY



ANNUAL ENVIRONMENTAL MANAGEMENT REPORT (AEMR)

2021

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1. INTRODUCTION

1.1 Scope

This report has been prepared by Daracon Quarries in accordance with the Project Approvals section 7.1 “Annual Report Requirements of Buttai Quarry Management Plan” to record the activities and environmental monitoring undertaken within and surrounding Buttai Quarry during the period 1st January to 31st December 2021.



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 2022. This Annual Environmental Management Report (AEMR) contains the following:

- A description of activities that were carried out in 2021 including the response to COVID-19;
- A review of the environmental monitoring results that were obtained during 2021;
- Results of the Environmental Inspections (Rubicon – formerly TREES and internal) completed during 2021;
- A description of potential measures that may be implemented throughout 2022 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 Quarry - Consents and Licences

Approval/Licence	Issue Date
Project Approval 10286	1997
Modification of Approval	2008
Modification of Approval	2008
Modification of Approval	2010
Modification of Approval	2015
Environment Protection Licence No.12829	

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*

1.3 Site Management and Responsibilities

Mr Paul Walker continues to undertake the role of overall Daracon Quarries Manager. Mr Geoff Reeves is now the Quarry Manager with Mr Daniel Smith assisting with the operation of Buttai Quarry as required. 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 2021, the Quarry was in an operational phase. **Table 2** summarises the activities that occurred at Buttai Quarry during 2021.

Table 2: Summary of operations during the reporting period

January 2021	Production and sale of various road base and construction materials;
February 2021	Production and sale of various road base and construction materials; Noise monitoring;
March 2021	Production and sale of various road base and construction materials;
April 2021	Production and sale of various road base and construction materials; Buttai Quarry CCC meeting; Daracon site environmental audit and report;

May 2021	Production and sale of various road base and construction materials; Noise monitoring;
June 2021	Production and sale of various road base and construction materials; Resource Recovery Facility approved by Cessnock City Council;
July 2021	Production and sale of various road base and construction materials; Rubicon environmental inspection and report;
August 2021	Production and sale of various road base and construction materials; Noise monitoring;
September 2021	Production and sale of various road base and construction materials;
October 2021	Production and sale of various road base and construction materials; Buttai Quarry remote CCC meeting due to COVID-19; Daracon site environmental audit and report;
November 2021	Production and sale of various road base and construction materials; Noise monitoring;
December 2021	Production and sale of various road base and construction materials; Daracon site environmental audit and report;

2.2 Extraction and Clearing Operations

During 2021 there was a total of **284,273** tonnes of material sold to internal and external clients for construction purposes.

During the latter part of 2021, the quarry footprint and extent of clearing changed marginally from previous operational years. The quarry extent progressed towards the northern part of lot 76 (aerial images below show the difference between **September 2020** and **December 2021**). For the minor additional clearing activities undertaken, the Daracon “tree clearing protocol” continues to be utilised, which has so far revealed no impact to the local fauna. Minor additional tree clearing will continue during 2022.



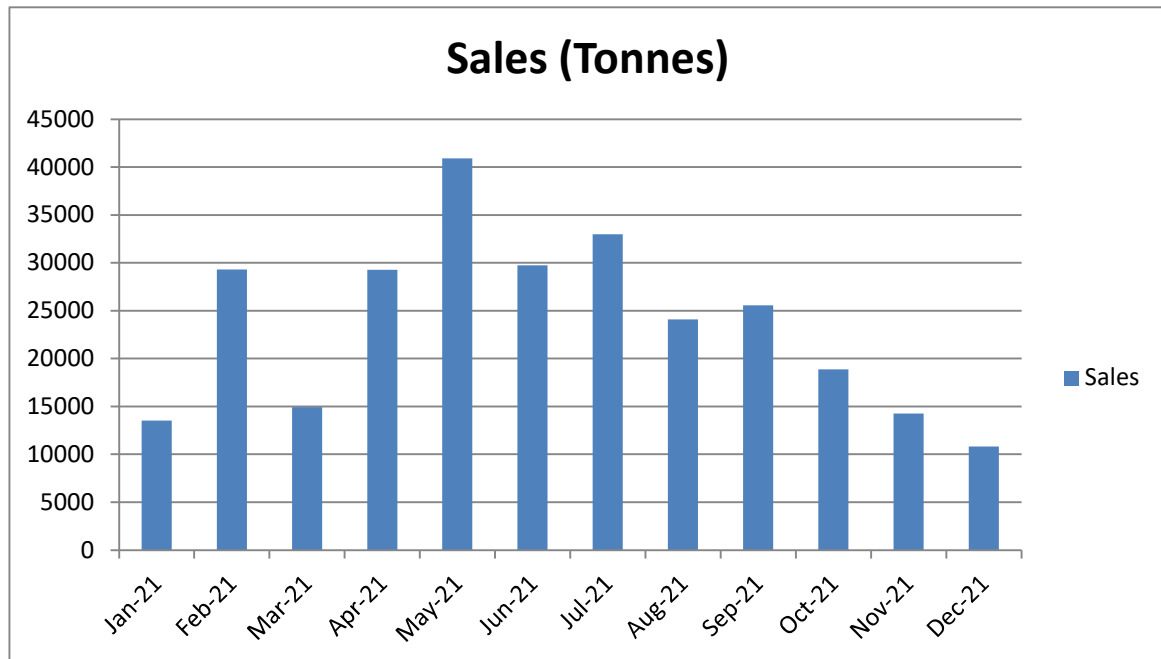
Aerial image from September 2020



Aerial image from December 2021

Table 3 presents the monthly sales from Buttai Quarry during 2021 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. This material may be 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's specifically trained in blasting to undertake this activity. The blasting contractor drill 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 recently approved Resource Recovery Facility (RRF), but this is currently in the planning phase with the expected installation dates yet to be confirmed.

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.

Additionally, National Parks and Wildlife Services (NPWS) undertook a controlled hazard reduction burn adjacent to the quarry site (but not on quarry land) 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 mobile a fuel truck which minimises the quantity of fuel stored on site.

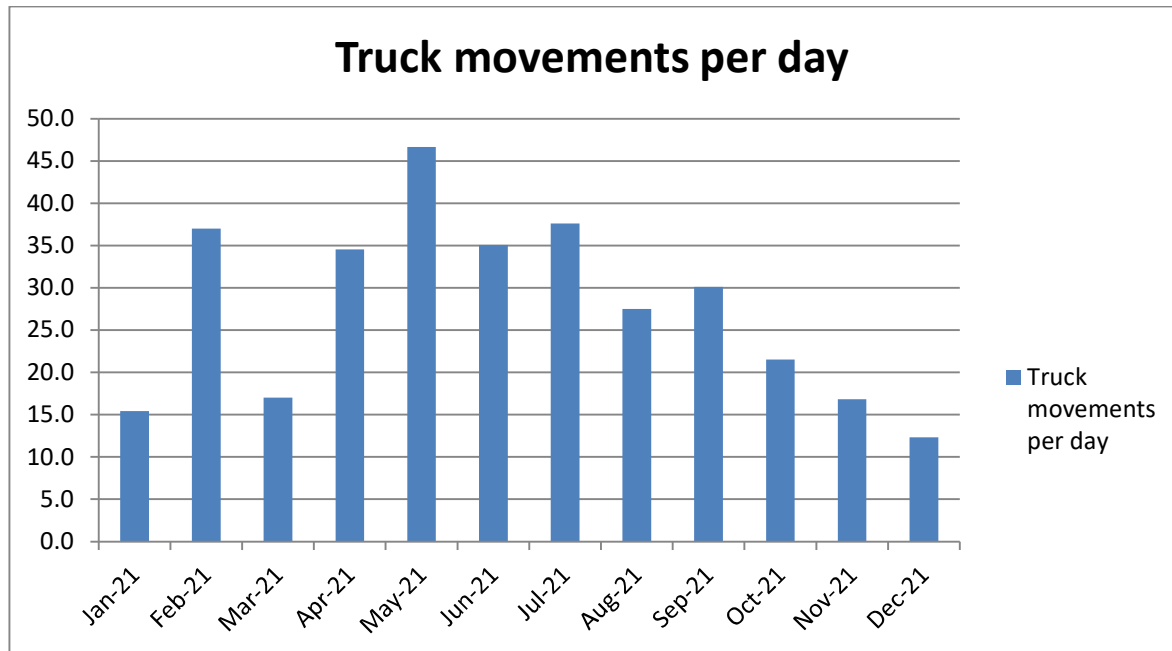
Aerosols and weed poison are stored within the designated hazardous materials cabinets within the bunded storage areas.

2.10 Product Transportation

During this reporting period the quarry was operational, with all materials exported exclusively by road transport.

Table 4 presents the average daily truck movements from Buttai Quarry during 2021 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 regularly 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;
- Additional measures to assist the progress of rehabilitation in bench 2 and 3 will be considered during 2022;
- All rehabilitation areas are inspected and reported regularly;
- Weed control is an ongoing task that occurs regularly on site;
- Targeted weed control for lantana and castor oil are also planned for 2022;

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

Firstly, it's worth noting that due to the presence of COVID-19 and subsequent restrictions imposed, the first Community Consultative Committee (CCC) meeting in April 2021 did occur face-to-face, whilst the second meeting in October 2021 occurred remotely. Additionally, there was no site visit completed in late 2021 due to COVID-19 restrictions.

Regardless of the COVID-19 limitations, the Buttai Quarry CCC held two meetings during 2021 with the first on the 8th April 2021 and the second on the 14th October 2021. The meeting minutes are attached in Appendix 2. Both meetings were well attended and effective in communicating the relevant information.

In late 2021, Shay Riley Lewis resigned from her role as the CCC facilitator to focus on other professional engagements. Following Shay's resignation and in consultation with all CCC stakeholders (including Cessnock City Council), Daracon have recently engaged the services of Kate Baartz to fill the role of CCC facilitator. Kate will commence in this role in early 2022 and be involved in all CCC matters going forward.

3.3 Environmental Complaints

There were no complaints received during the 2021 annual reporting period.

3.4 Community Involvement

As mentioned above, we held two CCC meetings during 2021 despite the limitations associated with COVID-19. The proposed Buttai Resource Recovery Facility (RRF) was discussed at length as part of the CCC and additional meetings held during the early parts of 2021, culminating in the RRF proposal being approved by Cessnock City Council in June 2021.

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

<i>Airblast overpressure level (dB(Lin Peak))</i>	<i>Allowable exceedance</i>
115	<i>5% of the total number of blasts over a period of 12 months</i>
120	<i>0%</i>
<i>Peak Particle Velocity (mm/s)</i>	<i>Allowable exceedance</i>
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 2**.

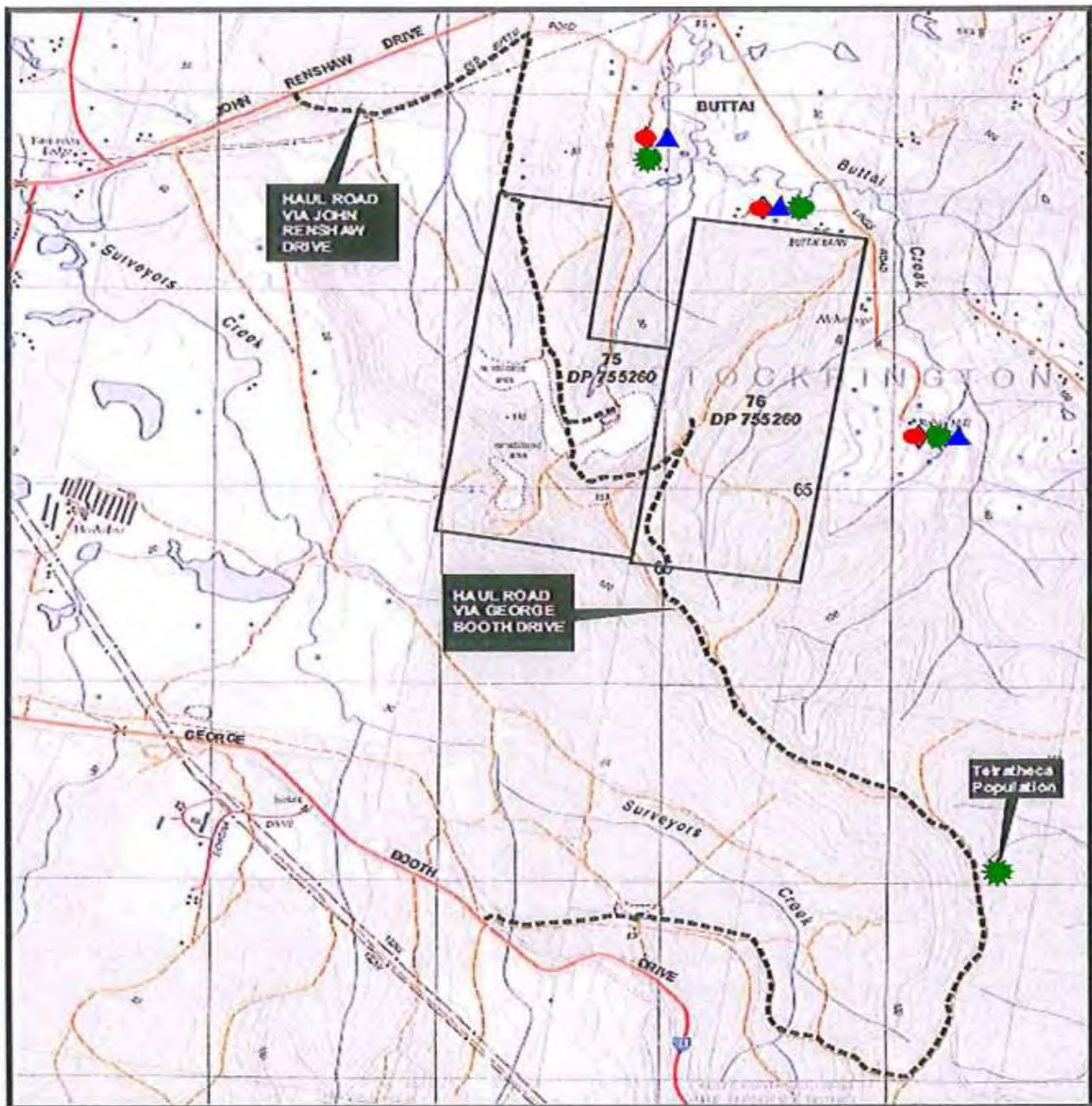


Figure 2: Blast, air quality and noise monitoring locations

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
1/03/2021	13:09	P_093	0.58	103.8	0.71	103.1	0.72	98.6
23/04/2021	11:48	P_094	0.67	107	0.74	113.4	0.91	101.9
12/05/2021	12:58	P_095	0.88	100.5	0.57	103.5	No trigger	No trigger
7/06/2021	12:56	P_096	0.62	102.8	No trigger	No trigger	0.56	103.5
22/06/2021	14:45	P_097	0.72	109.5	0.52	106.9	No trigger	No trigger
28/07/2021	14:38	P_098	0.51	111.7	0.71	108	0.67	101.4
28/08/2021	13:59	P_099	No trigger	No trigger	No trigger	No trigger	No trigger	No trigger
1/09/2021	12:17	P_100	No trigger	No trigger	No trigger	No trigger	No trigger	No trigger
4/11/2021	12:21	P_101	No trigger	No trigger	No trigger	No trigger	No trigger	No trigger

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 3**.

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

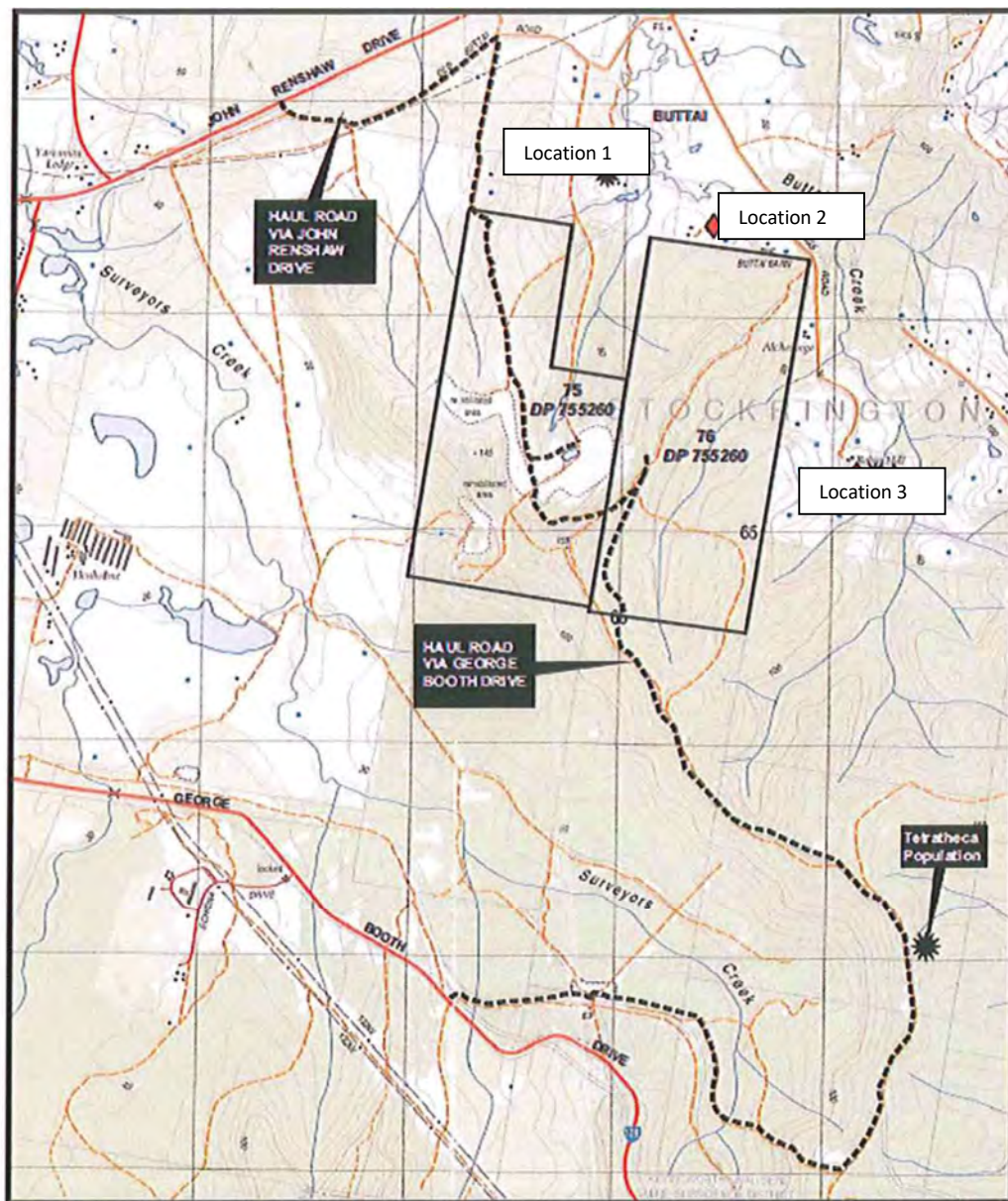


Figure 3: Noise Monitoring Locations

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
24-Feb-21	1	12:30 pm	40	2.5 m/s S	Birds & insects (40), traffic (30), BQ inaudible (<20)
	2	12:54 pm	37	2.5 m/s S	Birds & insects (37), BQ inaudible (<20)
	3	1:16 pm	39	2.0 m/s SE	Birds & insects (39), traffic (26), BQ inaudible (<20)
26-May-21	1	12:40 pm	42	2.5 m/s NW	Traffic (40), birds (37), BQ (26)
	2	1:05 pm	40	2.5 m/s NW	Birds (39), traffic (33), BQ (20)
	3	12:20 pm	42	2.0 m/s NW	Birds (40), traffic (38), BQ (28)
18-Aug-21	1	9:40 am	35	1.5 m/s N	Birds (33), traffic (31), BQ inaudible
	2	10:25 am	32	2.0 m/s NE	Birds (32), BQ inaudible
	3	10:05 am	34	2.0 m/s NE	Birds (32), traffic (29), BQ inaudible
24-Nov-21	1	12:45 pm	40	2.5 m/s SE	Birds (40), traffic (38), BQ occasionally audible
	2	1:30 pm	43	2.0 m/s ESE	Construction noise (43), birds (39), traffic (33), BQ inaudible
	3	1:10 pm	36	2.0 m/s SE	Birds & frogs (35), traffic (26), BQ faintly audible

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 4.**).

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.

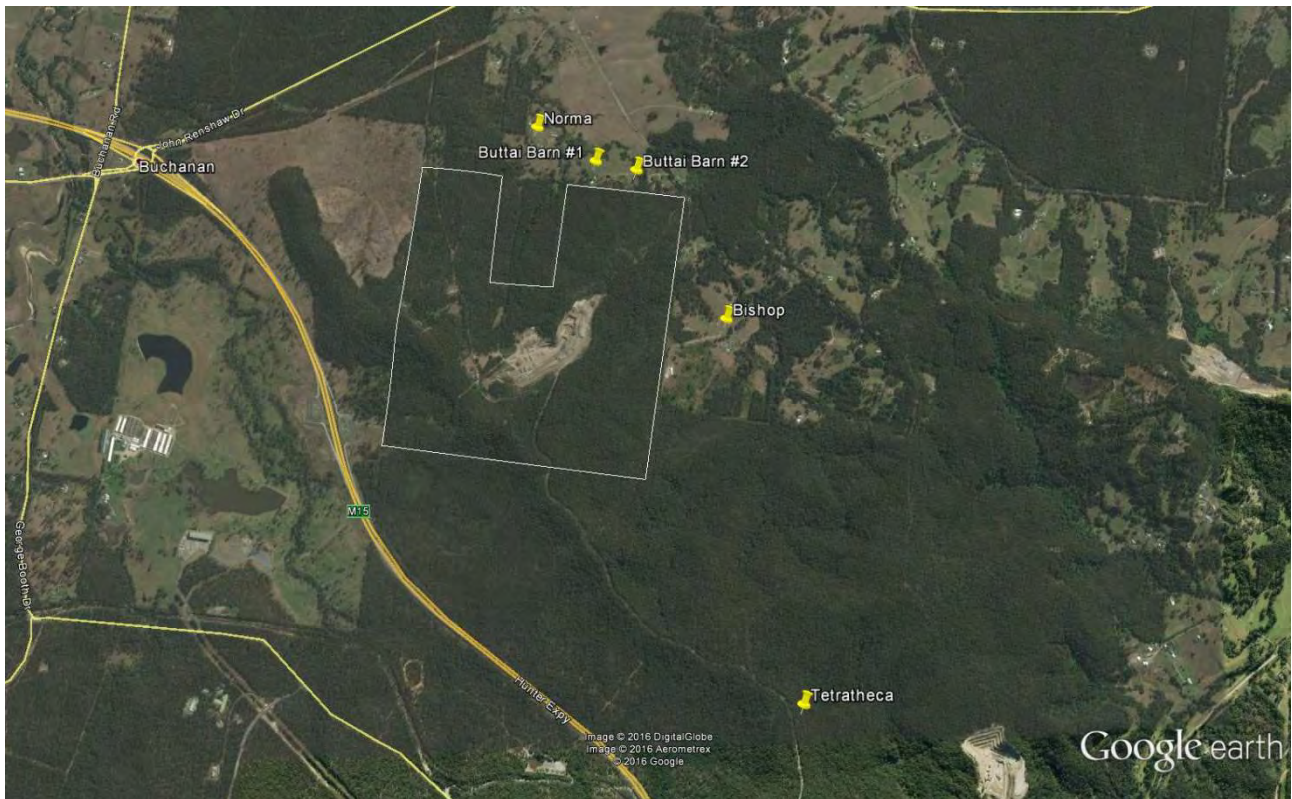


Figure 4: Air Quality Monitoring

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
18/12/20 to 15/01/21	Insoluble Solids	0.7	1.1	2.7	1	0.7
	Ash*	0.2	0.5	0.7	0.3	0.2
	Combustible Matter**	0.5	0.6	2	0.7	0.5
15/01/21 to 12/02/21	Insoluble Solids	1	0.6	0.8	1.3	0.5
	Ash*	0.2	0.2	0.5	0.5	0.2
	Combustible Matter**	0.8	0.4	0.3	0.8	0.3
12/02/21 to 12/03/21	Insoluble Solids	2	0.8	0.8	0.7	4.3
	Ash*	0.5	0.4	0.3	0.2	0.8
	Combustible Matter**	1.5	0.4	0.5	0.5	3.5
12/03/21 to 09/04/21	Insoluble Solids	0.5	5.1	2.1	8.5	7.8
	Ash*	0.1	3.9	1.1	1.3	4.1
	Combustible Matter**	0.4	1.2	1	7.2	3.7
09/04/21 to 07/05/21	Insoluble Solids	0.6	1.2	1	3.6	1.1
	Ash*	0.2	0.7	0.7	1.7	0.5
	Combustible Matter**	0.4	0.5	0.3	1.9	0.5
07/05/21 to 04/06/21	Insoluble Solids	0.2	1.3	0.4	0.5	0.2
	Ash*	0.1	0.9	0.3	0.5	0.2
	Combustible Matter**	0.1	0.4	0.1	0	0
04/06/21 to 02/07/21	Insoluble Solids	0.1	1.2	0.8	0.7	0.2
	Ash*	0	0.8	0.4	0.5	0.1
	Combustible Matter**	0.1	0.4	0.4	0.2	0.1
02/07/21 to 30/7/21	Insoluble Solids	0.4	1.1	0.6	0.5	0.1
	Ash*	0.1	0.7	0.3	0.3	0.1
	Combustible Matter**	0.3	0.4	0.3	0.2	0
30/7/21 to 27/08/21	Insoluble Solids	0.4	0.4	11	2.1	0.4
	Ash*	0.2	0.2	9	0.9	0.1
	Combustible Matter**	0.2	0.2	2	1.2	0.3
27/08/21 to 24/09/21	Insoluble Solids	0.4	0.5	0.5	1.3	0.2
	Ash*	0.2	0.3	0.4	0.7	0.2
	Combustible Matter**	0.2	0.2	0.1	0.6	0
24/09/21 to 22/10/21	Insoluble Solids	1.1	2.8	1.7	3.2	0.7
	Ash*	0.6	2.2	0.9	2.3	0.5
	Combustible Matter**	0.5	0.6	0.8	0.9	0.2
22/10/21 to 19/11/21	Insoluble Solids	0.6	1.2	0.5	1.5	0.5
	Ash*	0.2	0.8	0.4	1	0.5
	Combustible Matter**	0.4	0.4	0.1	0.5	0
19/11/21 to 17/12/21	Insoluble Solids	1.6	1.2	0.9	3.6	6
	Ash*	1.2	0.7	0.5	0.5	4.5
	Combustible Matter**	0.4	0.5	0.4	3.1	1.5

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).

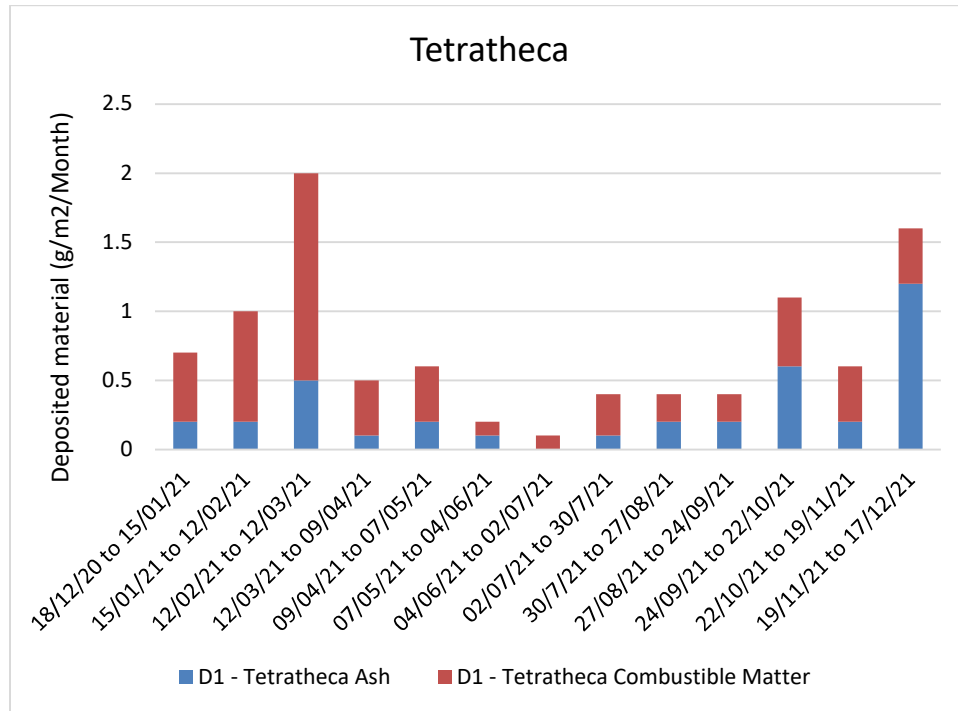
Combustible Matter** - This is the material making up the insoluble solids that has been combusted and is not attributable to quarrying as it is primarily organic matter.

Table 11: Summary of Dust Deposition Gauge Results

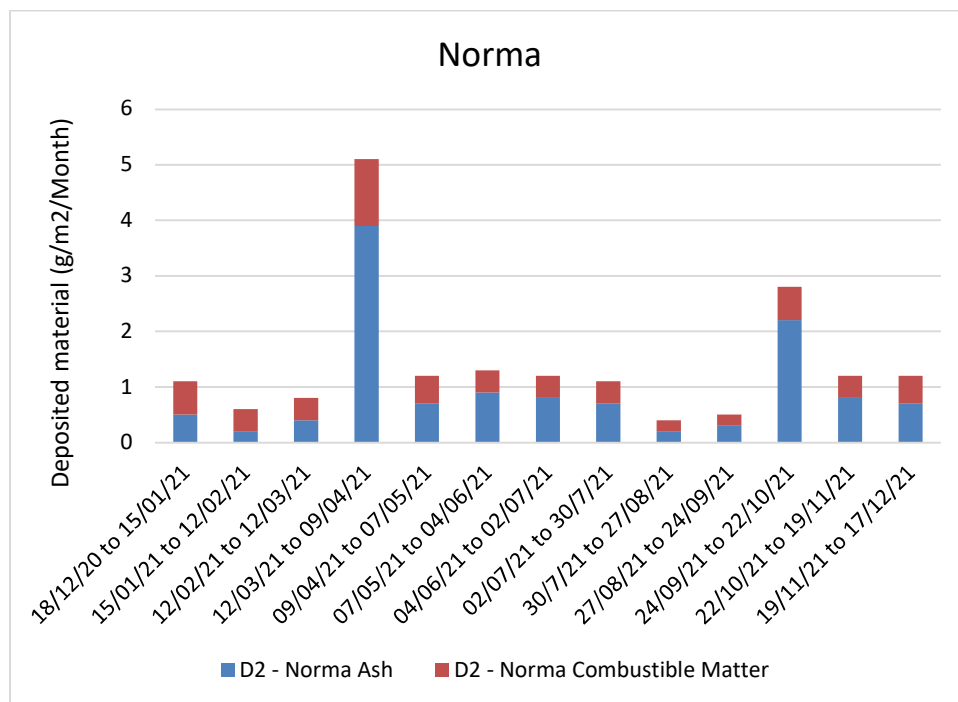
	D1 - Tetratheca	D2 - Norma	D3 - Buttai Barn	D4 - Bishop	D5 - Buttai Barn #2
18/12/20 to 15/01/21	0.7	1.1	2.7	1	0.7
15/01/21 to 12/02/21	1	0.6	0.8	1.3	0.5
12/02/21 to 12/03/21	2	0.8	0.8	0.7	4.3
12/03/21 to 09/04/21	0.5	5.1	2.1	8.5	7.8
09/04/21 to 07/05/21	0.6	1.2	1	3.6	1.1
07/05/21 to 04/06/21	0.2	1.3	0.4	0.5	0.2
04/06/21 to 02/07/21	0.1	1.2	0.8	0.7	0.2
02/07/21 to 30/7/21	0.4	1.1	0.6	0.5	0.1
30/7/21 to 27/08/21	0.4	0.4	11	2.1	0.4
27/08/21 to 24/09/21	0.4	0.5	0.5	1.3	0.2
24/09/21 to 22/10/21	1.1	2.8	1.7	3.2	0.7
22/10/21 to 19/11/21	0.6	1.2	0.5	1.5	0.5
19/11/21 to 17/12/21	1.6	1.2	0.9	3.6	6
Annual Average	0.74	1.42	1.83	2.19	1.75

4.3.5 Depositional Dust Gauge Graphs

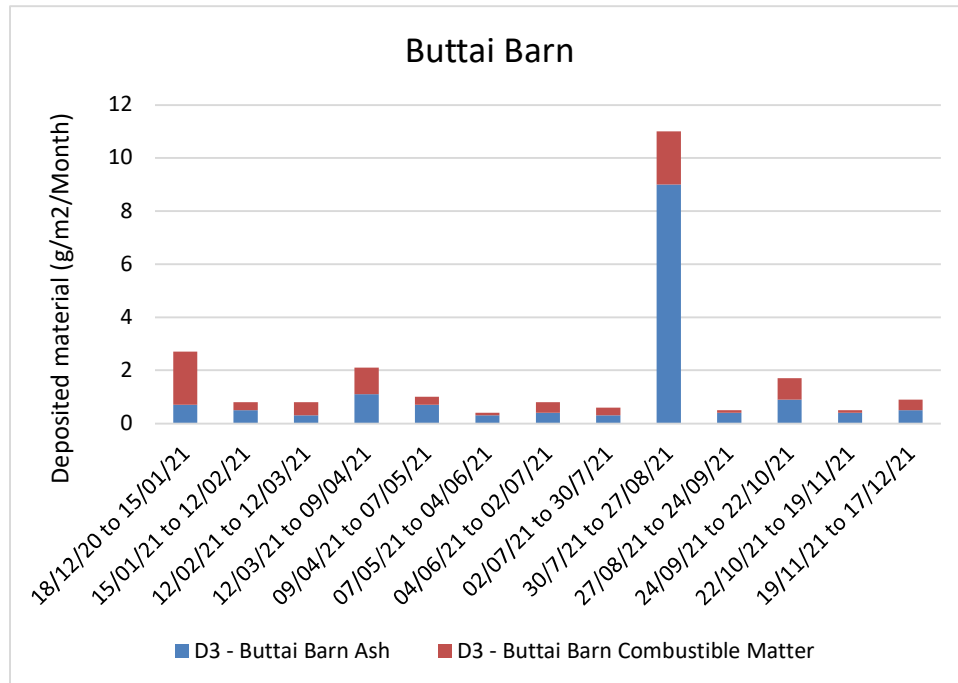
4.3.5.1 Tetratheca



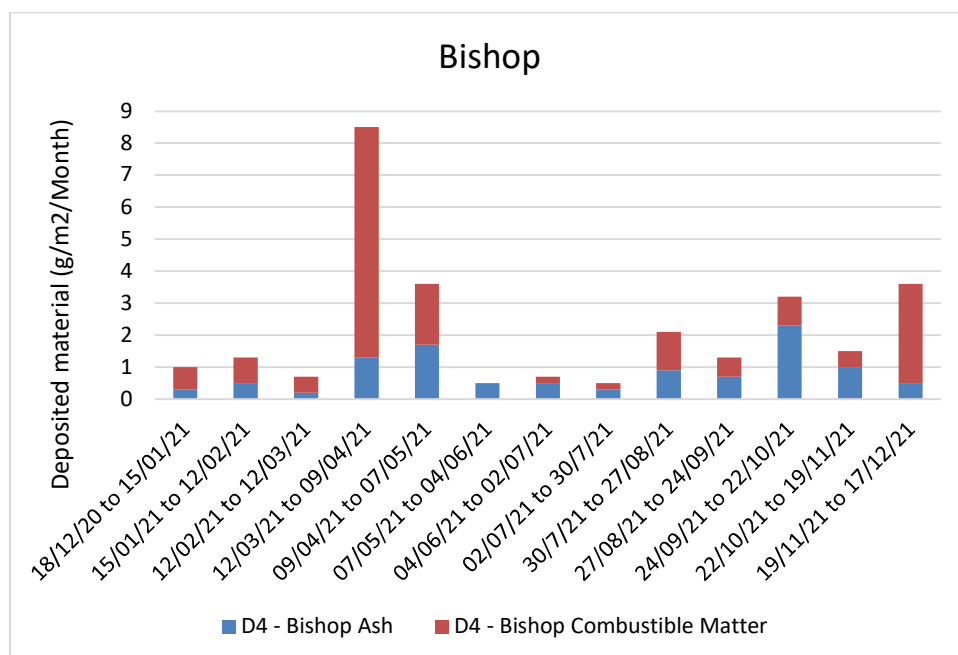
4.3.5.2 Norma



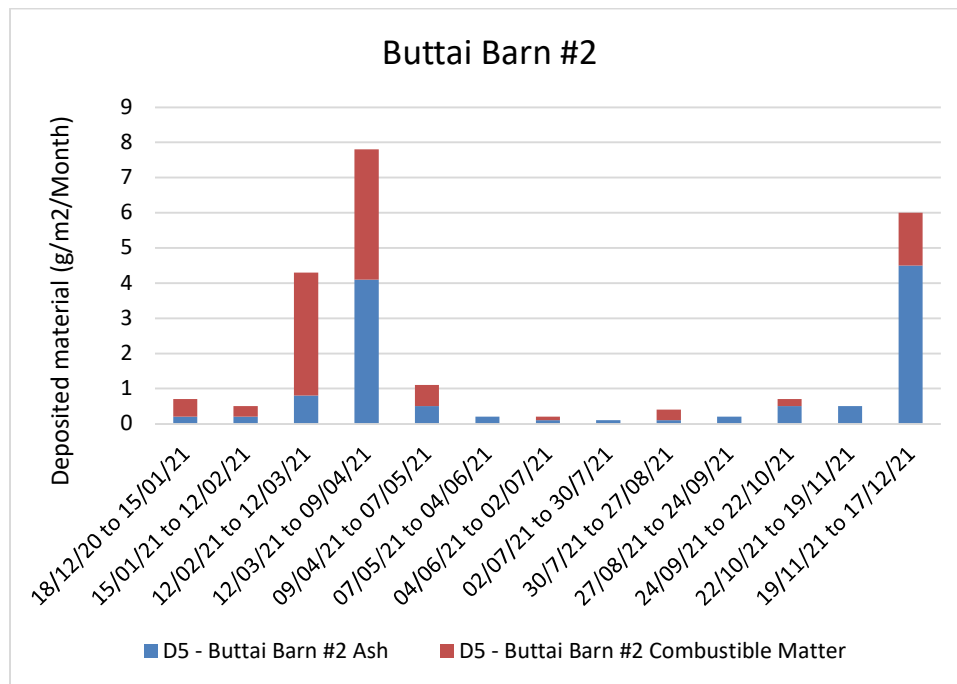
4.3.5.3 Buttai Barn



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 a single elevated DDG result at 'Norma' and 'Bishop' for the period 12/03/21 to 09/04/21 as well as a number of elevated DDG results at 'Buttai Barn' and 'Buttai Barn #2' during the reporting period. We discuss the details of these below:

- Norma DDG result between 12/03/21 to 09/04/21:
 - The annual average for 'Norma' is very low and well below the annual average criterion;
 - The DDG result obtained contains almost 25% combustible material which is not attributable to quarrying as it's primarily organic matter. If this was removed from the sample, the result is less than 4g/m²/month;
 - We received no air quality complaints or enquiries from the community during this time;
- Bishop DDG result between 12/03/21 to 09/04/21:
 - The annual average for 'Bishop' is very low and well below the annual average criterion;
 - The DDG result obtained contains almost 85% combustible material which is not attributable to quarrying as it's primarily organic matter. If this was removed from the sample, the result is far less than 4g/m²/month;
 - We received no air quality complaints or enquiries from the community during this time;
- Buttai Barn and Buttai barn #2 (various dates):
 - 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 average for 'Buttai Barn' and 'Buttai Barn #2' are low and below the annual average criterion;
- Substantial evidence of ground disturbance activities continues to occur adjacent to both Buttai Barn DDG's (non-quarry related) when the new owners have been undertaking earthworks on site;
- 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.

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 is currently under review to incorporate the RRF into the activities and monitoring regime for the site as whole. Once this is agreed and approved, we will communicate the details of this to the CCC as required.

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 and one remote audit 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 it is necessary to vary the EPL 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 2022 reporting period. **Table 12** provides a summary of the proposed quarry activities.

Table 12: Proposed Activities for 2022

January - December 2022	<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;• Additional minor vegetation clearing at the northern extent of the quarry;
-------------------------	---

6.2 Extraction Operations

At this stage, it's envisaged that extraction activities will remain the same for the 2022 period.

6.3 Processing

At this stage, it's envisaged that the Quarry processing operations will remain the same for the 2022 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 no substantial changes will be made and the current water management practices will remain in place and continued to be monitored.

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

Now that the RRF has been approved and we're currently working through the various subsequent approvals required to operate the RRF, we do not expect there to be any substantial changes to the product transportation during the early parts of 2022. Once the various additional approvals are received and the RRF commences operation, the quantity of material to and from the RRF will therefore lead to an increase in the truck movements as previously described in the RRF approval documentation. We will keep the CCC informed of the progress of the RRF any associated product transportation increases as required.

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 2022.

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*

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:	29-01-21		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 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.			No blasting		
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:	26-2-21	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 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.				No blasting
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:	29-3-21	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 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.	✓		BU-P-093	
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:	30-04-21		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.)			✓		Cleaned out
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.			✓		23-4-21 BU-P-094
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:	28-05-21	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 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.	✓		BU-P-095
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:	28-06-21	Inspected by:	Geoff Reeves
SEDIMENT CONTROLS		Yes	No
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.		✓	BU-P-096 - BU-P-097
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:	30-07-21	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 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.	✓		BU-P-098	
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:	27-08-21	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			Nil
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.	✓		BV-P-099
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:	30-09-21	Inspected by:	Geoff Reeves
SEDIMENT CONTROLS		Yes	No
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.)		✓	Drains cleaned
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.		✓	BU-P- 099 100
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:	29-10-21	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 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.				No blasting
Blast record form completed for each blast undertaken for the month				N/A

[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:	30-11-21		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 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.		✓		BU-P-101	
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:	23-12-21	Inspected by:	Geoff Reeves
SEDIMENT CONTROLS		Yes	No
Sediment fences installed and maintained	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Site checked for erosion	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Stockpiles located and maintained correctly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Tree clearance restricted to required area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WATER QUALITY AND QUANTITY		YES	NO
Drainage and sediment controls in place and in good order. (Including water storages, pumps and pipes.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cleaned out
Fuel or oil spills reported and cleaned up	<input type="checkbox"/>	<input type="checkbox"/>	No spills
Fuels\ Chemicals stored in bunded areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
AIR QUALITY		YES	NO
Continuous dust deposition monitoring Under taken. (Collected for analysis every 28 days.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
On site dust suppression undertaken as required	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
All loads covered entering and leaving site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Vegetation burnt on site	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
NOISE		YES	NO
Operating only during hours of operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Have there been any noise complaints received nearby residents?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Noise monitoring of new plant and equipment. (Initially and then every 12 months)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Ambient noise monitoring at nearby residents. (Frequency: 12 monthly)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
BLAST MANAGEMENT		YES	NO
Blast notification checklist completed for each blast undertaken during the month.	<input type="checkbox"/>	<input type="checkbox"/>	No blasting
Blast record form completed for each blast undertaken for the month	<input type="checkbox"/>	<input type="checkbox"/>	N/A



[illegible]



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: 15/04/21 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): Intermittent rainfall recently Other:		OVERALL STATUS <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="width: 15px; height: 15px; background-color: red; border-radius: 50%; margin-bottom: 5px;"></div> <div style="width: 15px; height: 15px; background-color: yellow; border-radius: 50%; margin-bottom: 5px;"></div> <div style="width: 15px; height: 15px; background-color: green; border-radius: 50%;"></div> </div> <div> <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low </div> </div>	
No.	Location (Area / description)	Issue / Comment	Recommended priority	Action	Close out date		
1	Buttai Quarry		N/A	Nil – At the time of inspection, there was no evidence of dust generation on site. A number of alarmed security cameras are located in strategic locations on site to deter trespassing – Positive observations.	N/A		


2	Old Buttai Road and quarry access road	 	N/A	<p>Nil – Appropriate signage and “call-up” points are present and visible along the access route. Additionally, the bitumen sealed sections of the access road are well maintained reducing the risk of erosion and dust generation. Large “trucks turning” signs installed at approach to the intersection with Old Buttai Rd - Positive observations.</p>	N/A
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3	Sediment controls along quarry access road	 	Low	Although the majority of the sedimentation controls along the access road are well positioned and operating effectively, there is some minor maintenance required as shown.	<p>Completed 23/04/21 - LR</p>
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4	Dam #4		N/A	Nil – Dam #4 is carefully managed to ensure there is enough water available for the site to operate effectively whilst also ensuring that water does not discharge from Dam #4 – Positive observations.	N/A
5	Stockpile on the eastern side of the quarry pit “Lot 76” area		N/A	Nil – This previously disturbed area now has substantial vegetation cover with no further requirement for sedimentation controls - Positive observation.	N/A

6	Stockpile and crushing areas	 	N/A	Nil – Both the stockpile and crushing areas were tidy with no evidence of dust generation at the time of inspection – Positive observations.	N/A
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7	Rehab' planting on the upper western edge of the quarry pit "Lot 76" area		N/A	Nil – The revegetation work previously completed in this area is progressing well. The previously installed water diversion in this area is also working effectively – Positive observations.	N/A
8	Rehab' planting on the upper eastern edge of the quarry pit "Lot 76" area		N/A	Nil – The revegetation work previously completed in this area is progressing well – Positive observation.	N/A

9	Bench #3 rehab' work		N/A	Nil - As before, Bench #3 rehabilitation continues to progress effectively with the planted vegetation now well established – Positive observation.	N/A
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10	<p>MORE</p> <p>Bench #3 rehab' work looking north towards John Renshaw Dve standing on Bench #2 with Bench #3 in the foreground</p>		N/A	Nil – Trees are progressing well in this area – Positive observation.	N/A
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11	Bench #2 rehab' work		N/A	Nil – As before, Bench #2 rehabilitation continues to progress and evolve with the older species selectively dying off and being replaced with natural regeneration over time – Positive observation.	N/A
12	Panoramic image of the quarry – Looking north along Bench #2				

13	Summary	Overall, the site is kept neat and tidy with all areas being well maintained. Only one minor action required: <ul style="list-style-type: none">• Minor repairs required to silt fences along haul road;			
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Issued by: L.Robinson**Issued to:** G.Reeves**Copy to:** D.Smith**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	17 th July 2021	REPORT NO.	5	REPORT TO:	Luke Robinson, Jason Gorton – Daracon Group
PROJECT	Buttai Quarry	INSPECTION DATE	16 th July 2021	ATTENDEES:	Luke Robinson – Daracon Group, Andrew Littlewood – Rubicon Enviro		
WEATHER	Fine, Mild, Light winds.	COMMENT	The quarry areas were inspected with no significant issues with drainage or erosion and sediment control noted. No significant maintenance issues were identified with exception of the ongoing weed suppression program.				
ISSUE NO.	LOCATION	ISSUE/MATTER		RECOMMENDATION/COMMENT		PHOTOGRAPH	
1.	Dam 4.	The area around Dam 4 was inspected. The controls adjacent to the haul road remain in position and functional. Water in Dam 4 continues to be transferred to dams in the upper floor of the quarry.		The controls in the area remain functional and no actions are required.			
2.	Proposed Resource Recovery Facility (RRF).	Preparations are underway for the proposed Resource Recovery Facility (RRF). The main operational area of the RRF will be regraded to shed runoff toward the east which will drain through the central drainage system.		As discussed, continue to plan, and implement measures and controls to mitigate potential impacts to air and water quality from the proposed RRF operations.			
3.	North-western bund.	The area along the previously rehabilitated north-western bund was inspected. The onset of the rehabilitation plantings was noted to be well established and the area is fully vegetated. The cut-off drain above the access ramp continues to convey and filter run-off before directing flows back into the quarry floor.		The controls in the area remain functional and no actions are required.			



Inspection Report – Daracon Group

PROJECT:	Buttai Quarry	INSPECTION REPORT NO.	5	REPORT DATE	17 th July 2021
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ISSUE NO.	LOCATION	ISSUE/MATTER	RECOMMENDATION/COMMENT	PHOTOGRAPH
4.	Bench 2 and Bench 3 rehabilitation areas.	The revegetation along Bench 2 and Bench 3 was inspected. The rehabilitation plantings are well established in most areas however a few isolated areas remain where the onset of seedlings is impacted due to the aspect and weather impacts.	As discussed, we recommend considering harvesting seed bearing foliage from the adjacent vegetation and applying it as brush matting over any exposed soil areas or other areas where seedlings have poor establishment.	
5.	Bench 2 and Bench 3 rehabilitation areas.	As noted above, the bench rehabilitation areas were inspected. The rehabilitation in the area is progressing well however some castor oil weed outbreak was noted in the northern section of Bench 3.	As discussed, continue to implement the periodic weed suppression, targeting the weed identified on Bench 3.	
6.	Eastern bund.	The eastern bund rehabilitation area was inspected. The revegetation is healthy and well established.	The area remains stable and well vegetated, and no actions are required. As discussed, continue to schedule the area for periodic weed suppression.	

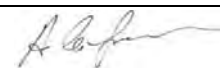
Inspection Report – Daracon Group

PROJECT:	Buttai Quarry	INSPECTION REPORT NO.	5	REPORT DATE	17 th July 2021
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ISSUE NO.	LOCATION	ISSUE/MATTER	RECOMMENDATION/COMMENT	PHOTOGRAPH
7.	Main access road.	The areas along the main access road were inspected. The road is being well maintained and installed sediment controls are functional and in good condition.	As discussed, continue to monitor, implement, and maintain the controls to minimise erosion and improve runoff water quality.	
8.	Front entrance grate.	The area around the front entrance grate was inspected. The drainage line and outlet structures remain stable.	As discussed, the stands of sediment fence along the western boundary were installed some years ago for the batter reshaping for the road sealing. The catchment is now stabilised, and the sediment fences can be removed.	

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: 06/10/21 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): Intermittent rainfall recently Other:		OVERALL STATUS <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="width: 15px; height: 15px; background-color: red; border-radius: 50%; margin-bottom: 5px;"></div> <div style="width: 15px; height: 15px; background-color: yellow; border-radius: 50%; margin-bottom: 5px;"></div> <div style="width: 15px; height: 15px; background-color: green; border-radius: 50%;"></div> </div> <div> <input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low </div> </div>	
No.	Location (Area / description)	Issue / Comment	Recommended priority	Action	Close out date		
1	Buttai Quarry		N/A	Nil – At the time of inspection, there was no evidence of dust generation on site with watercart actively wetting all areas as required – Positive observations.	N/A		



2	Old Buttai Road and quarry access road	 	N/A	<p>Nil – Appropriate signage at the main gate and “call-up” points are present along the access route. Additionally, the bitumen sealed sections of the access road are well maintained reducing the risk of erosion and dust generation.</p> <p>- Positive observations.</p>	N/A
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3	Quarry progress to the north of current active areas	 	N/A	<p>Nil – We recently engaged the services of Wild Thing Ecological Services (WTES) to inspect the vegetation to the north of current active area to allow the expansion of the quarry footprint. WTES inspected the area and marked the likely ‘habitat trees’ as shown in the image. Clearing had commenced at the time of inspection (excluding ‘habitat trees’ for now) with WTES to return when ‘habitat trees’ are to be felled. All felled trees were placed along the downstream edges to mitigate sedimentation issues – Positive observations.</p>	N/A
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4	Dam #4	 	N/A	Nil – Dam #4 continues to be managed effectively to ensure water is available for the site to operate effectively whilst also ensuring that water does not discharge from Dam #4 by pumping back to other water storage areas on site when required – Positive observations.	N/A
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5	Stockpile and crushing areas	 	N/A	Nil – Both the stockpile and crushing areas were tidy with no evidence of dust generation at the time of inspection – Positive observations.	N/A
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6	RFS access gate at top of quarry		N/A	Nil – The gate installed to allow access to the Rural Fire Service (RFS) if required is still intact and operating effectively. Appropriate signage installed – Positive observations.	N/A
7	Recently re-shaped batter along eastern edge of the quarry pit “Lot 76” area		Low	Seeding of the recently re-shaped eastern batter is required.	Completed 14/12/21 - LR

8	Chemical storage container	 	N/A	Nil – All relevant items were stored in a bunded area and were appropriately labelled. Spill kit was readily available – Positive observations.	N/A
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9	Bench #3 rehab' work		N/A	Nil – The progress of the planted areas along Bench #2 is good. Some of the trees planted in this area have thrived whilst others are progressing at a slower rate – Ongoing.	N/A
10	Bench #2 rehab' work		N/A	Nil – As before, Bench #2 rehabilitation continues to progress and evolve with the older species selectively dying off and being replaced with natural regeneration over time – Positive observation.	N/A

11	Panoramic image of the quarry looking west from Bench #3				
12	Summary	<p>Overall, the site is kept neat and tidy with all areas being well maintained. Only one minor action required:</p> <ul style="list-style-type: none"> • Seeding of the recently re-shaped eastern batter required; 			

Issued by: L.Robinson**Issued to:** G.Reeves**Copy to:** D.Smith**Actions Checked:****Key****Recommended Priority for Completion of Actions**

Immediate To be addressed straight away

High Within 24hrs*








Medium Within 3 working days*

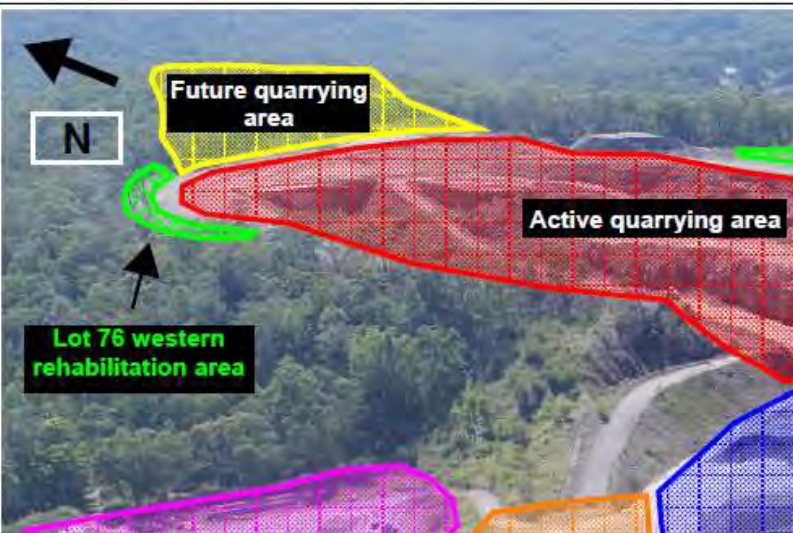

Low Within 5 working days*

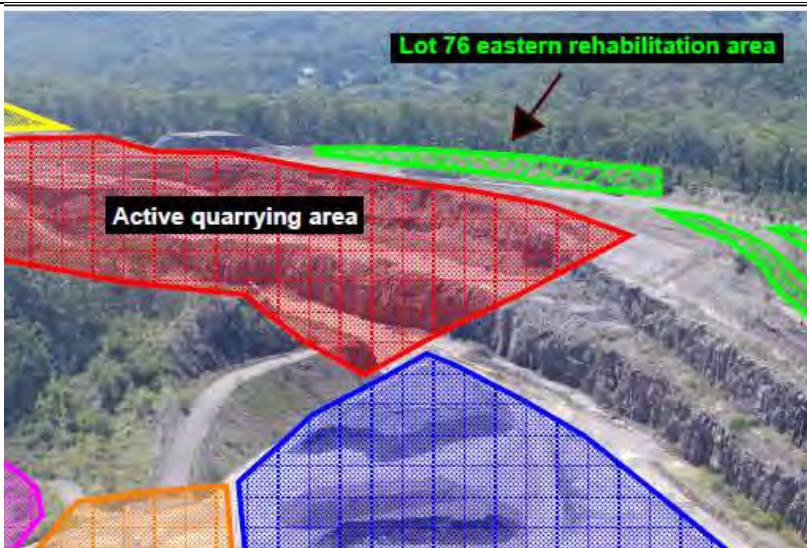

N/A No work required

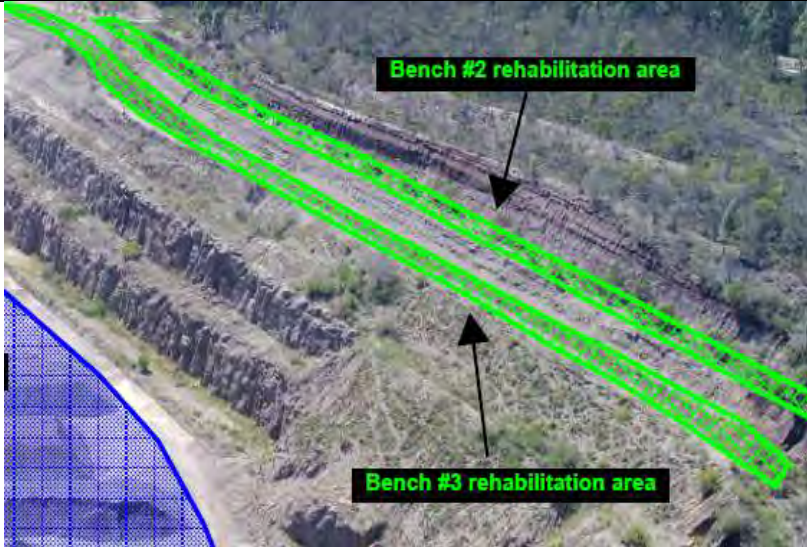

*To be completed sooner if adverse weather conditions are predicated

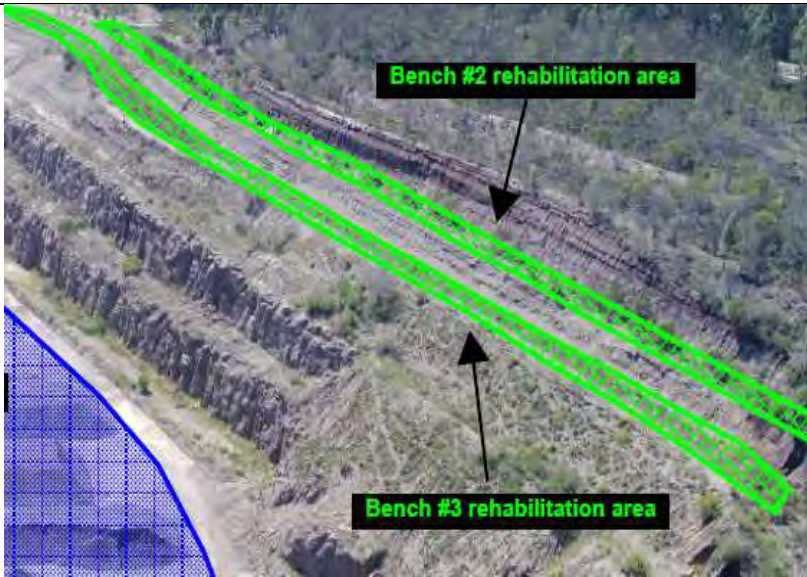

ENVIRONMENTAL INSPECTION REPORT



WORKPLACE: Buttai Quarry LOCATION: Buttai WORKS UNDERTAKEN BY: Daracon <input checked="" type="checkbox"/> Subcontractor <input type="checkbox"/> Subcontractor name:		DATE OF INSPECTION: 09/12/21 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 type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <p>Rain (mm): Almost 300mm rain over the last month</p> <p>Other:</p>		OVERALL STATUS <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 15px; height: 15px; background-color: red; border-radius: 50%; margin-right: 5px;"></div> <input type="checkbox"/> High </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 15px; height: 15px; background-color: yellow; border-radius: 50%; margin-right: 5px;"></div> <input type="checkbox"/> Medium </div> <div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; background-color: green; border-radius: 50%; margin-right: 5px;"></div> <input checked="" type="checkbox"/> Low </div>	
No.	Location (Area / description)	Issue / Comment	Recommended priority	Action	Close out date		
1	Buttai Quarry		N/A	Nil –There was no evidence of dust generation on site with recent rainfall assisting – Positive observations.	N/A		


2	Rehab' area along western edge of the quarry pit "Lot 76" area	 	N/A	<p>Nil – As shown in the images, the western rehabilitation planting is progressing very well, with the naturally regenerated trees out growing the planted tube-stock. The annual rehabilitation inspection occurred at the same time as this inspection – Positive observation.</p>	N/A
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3	Recently re-shaped batter along eastern edge of the quarry pit "Lot 76" area	 	Medium	As previously described, the eastern batter was recently shaped and prepared for seeding. Seeding of the recently re-shaped eastern batter is required.	Completed 14/12/21 - LR
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4	Bench #3 rehab' work	 	N/A	Nil –The Bench #3 rehab' planting is progressing adequately with the annual rehabilitation inspection occurring at the same time as this inspection – Positive observation.	N/A
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5	Bench #2 rehab' work	 	N/A	Nil –The Bench #2 rehab' planting is progressing adequately with the annual rehabilitation inspection occurring at the same time as this inspection – Positive observation.	N/A
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6	Site security		N/A	Nil – A number of remotely activated cameras are installed on site to mitigate unauthorised access – Positive observation.	N/A
7	Departure road adjacent to Dam #1		N/A	Nil – Additional catch drains installed to assist with the management of site water – Positive observation.	N/A

8	Access roads and Dam #4	 	N/A	Nil – Site water is captured and managed appropriately with additional water pumped to the 'western detention basin' as required due to substantial rainfall received— Positive observations.	N/A
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9	Main access gate scour protection		N/A	Nil – Scour protection installed adjacent to the main gate is operating effectively to prevent downstream sedimentation – Positive observation.	N/A
10	Panoramic image of the quarry looking east over the active quarry area				

11	Summary	Overall, the site is being well maintained with only one minor action outstanding: <ul style="list-style-type: none">• Seeding of the recently re-shaped eastern batter required;			
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Issued by: L.Robinson

Issued to: G.Reeves

Copy to: D.Smith

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

Appendix 2 2021 Community Consultative Committee Meeting Minutes

BUTTAI QUARRY COMMUNITY CONSULTATIVE COMMITTEE

MEETING NOTES

9:00am Thursday 8th April 2021
Kurri Kurri Community Centre

Attendees:

Shay Riley-Lewis	Independent Chairperson (PEP Consulting)
Richard Forbes	Cessnock City Council
Janet Murray	Community Representative
Terry Lewin	Community Representative
Colin East	Community Representative
Luke Robinson	Daracon
Clr Darrin Grey	Cessnock City Council
Michael Ulph	GHD
Kate Harris	Cessnock City Council

1. Welcome and introductions

2. Apologies

Dan Smith (Daracon), John Cannon (Daracon)

3. Minutes

Comment under Item 5 amended as suggested by JM to read: *"Higher recorded dust levels at D3 may be due to tree removal and some construction onsite"*. Updated notes accepted and to uploaded.

4. Richmond Vale Rail Trail (RVRT)

Presentation from Michael Ulph (GHD) and Kate Harris (Cessnock City Council)

To focus the presentation KH asked what the CCC interest was in the RVRT.

TL: Interested how the relocation of access points to RVRT impacts the Southern Haul Road.

LR: Daracon have informally seen concept plans but not officially. Southern Haul Road (from Buttai quarry to George Booth Drive) is not likely to be used except as an emergency route. The proposed Resource Recycling Facility (RRF) utilises the main quarry access to and from John Renshaw Drive via Old Buttai Road.

CE: The South Haul Road through the State Conservation Area needs a licence with National Parks and Wildlife Service (NPWS).

LR: No lease is currently held with NPWS. NPWS are requesting Daracon to pay for use of the Southern Haul Road. Daracon don't plan to use the Southern Haul Road, so currently have no need to formalise that arrangement with NPWS.

CE: Will the exhibition wait until plans are updated to reflect the submissions received.

KH: Yes. Concept plans will be updated in response to submissions – including relocated carpark. NPWS want the carpark further within the Stockrington Reserve. Mindaribba Local Aboriginal Land Council (LALC) have issues with the location of carpark due to the proximity to artefacts.

KH: The Lake Macquarie Council (LMCC) are supportive but under resourced to enable public exhibition of the combined Review of Environmental Factors (REF) with Cessnock City Council (Council).

Council have been criticised for using the REF process instead of a development application (DA). Council are not able to select the approval pathway. GHD prepared the REF and City Plan (consultant) has peer reviewed.

CE: Will the underpass be included in concept plan to exhibition?

KH: Council is still liaising with NPWS to confirm the preferred location. Exhibition plans plan reflect the submissions received to date.

TL: A Fire Management Strategy is being prepared by the Rural Fire Service (RFS) for Stockrington State Recreation Area identifying all fire trails with a view to narrow the number of accesses. Do not want the community interphase with RVRT jeopardised by antisocial behaviour on the haul road.

KH: Council is hoping once the space is activated it will deter hooligan behaviour.

MU: Whilst it's not the Fernleigh Track, it has similar surveillance issues.

KH: Landowner feedback to date includes:

- Location of carpark
- Illegal dumping
- Generally supportive

Issues raised by third tunnel landowners:

- Cattle access to water cut by RT (cattle tunnel required)
- Severance of property requiring access
- Privacy
- Trespassing

A 1.8m high man-proof fencing is supported by landowners. Most impacted landowner privacy concerns will be resolved before public exhibition of the revised concept plan. The

majority of affected landowners want higher fencing which will likely require a landscape architect to design improved privacy measures.

YanCoal own a key portion of the RVRT and are happy to divest the land to Council for the RVRT.

The RVRT route is not an easement on titles on all properties.

MR: Acquisition or easements are being negotiated with landowners with compensation.

TL: YanCoal should be supportive since they have previously allocated money to the RVRT via the Donaldson Conservation Trust.

CE: What are the Aboriginal interest areas and feedback?

KH: Mindaribba LALC own land and are relatively supportive of RVRT but have raised the following issues:

- Illegal dumping
- Want 1.8m high fence
- Require acquisition of land to accommodate the RVRT (there is no current easement)
- Aboriginal people not likely to use the RVRT
- Need project to benefit Aboriginal people such as:
 - interpretation opportunities
 - employment

JM: Land claim areas can't be used for what the LALC want it used for. For example growing areas for Yam daisies. Need land swap to enable use of more suitable land – the RVRT land is potentially more appropriate for LALC uses.

CE: Don't want to hold up the exhibition waiting for detailed agreements with landowners.

KH: Can't resolve all landowner concerns before public exhibition but want the Concept Design to reflect the key agreements and issues raised.

Timeframes:

- Engagement with landowners – May 2021
- Report for Council for public exhibition REF (June 2021)
- Public exhibition (July/August 2021)
- Assess submission (Aug/sept 2021)
- Amend REF based on submission (Oct 2021)
- Council endorse plans (Dec 2021)

Timeframes may extend if there is a new Council elected at the upcoming election.

TL: Is the Regional Planning Panel (RPP) to determine the RVRT?

RF: Not for Cessnock REF portion.

KH: 100m DA taking 7 months to determine due to the conflicting interests in the area. Council is the determining authority. The REF has been peer reviewed as an additional step to improve transparency.

TL: CCC should be represented in assessment by the RPP of the Newcastle City Council (NCC) DA. Having the RVRT assessed in parts, the value of the overall project can be lost.

RF: RPP contains reps from each Council. The Charter allows additional representatives.

CE: some of the RPP questions cannot be answered by NCC alone. One more briefing proposed that would be great if CCC could attend to represent.

ACTION: KH to speak with NCC to confirm timeframe and process to see if KH/RF can attend the next RPP briefing to address the regional issues.

CE: What percentage of landowners have been met by Council to discuss?

KH: 95%. Two landowners engaged but not met yet.

LR: When it's approved will construction be done in stages, which end would start? Tunnels are a great drawcard that would be a good place to start.

KH: grant application for section for trail – Knowledge park to stockrington.

Mindaribba is the most accessible start point. Ideally from Kurri end but will respond to funding opportunities.

KH: Request confidentiality on landowners issues.

TL: Is it worth Darcaon tendering for any involvement in construction?

5. Previous Actions

a) Crown roads status

RF advised a recent zoom meeting was held with Crown Lands to discuss the transfer policy for developments adjoining crown roads. When Council approve development on crown land, Crown lands want Council to take ownership. Differences between what Crown Lands and Council think they own. Establishing a protocol to exchange information on the status of road ownership – the informal process is not working.

Crown roads process for divestment is still not clear but dialogue is open attempting to resolve.

b) LR uploaded Recycling Facility DA reports

Complete.

- c) RF and LR to notify SRL when RRF assessment documents ready and meeting date confirmed.

RRF meeting date not confirmed yet. Final details being confirmed and draft conditions being finalised.

RF: Process dictated by RPP. RPP will notify submitters regarding meeting date.

TL: How does RRF consent relate to quarry – Daracon deal with both consents

SRL: Consent will be separate and the quarry consent won't change. The separate RRF consent will consider the quarry conditions to establish a cumulative threshold standards.

Post meeting notes:

Draft Conditions of Consent for the Daracon RRF distributed to CCC on 15 April 2021.

Resource Recovery Facility (RRF) was approved by the Regional Planning Panel on June 16th 2021 (Attachment 2: RRF Approval Documents)

- d) RF to provide draft CoC

LR: Daracon will provide draft CoC to CCC when they are received from Council.

Post meeting note - Complete

- e) DG to keep CCC up to date on Rail Trail

Ongoing.

- f) DG to enquire if GHD can engage with/present to CCC regarding the rail trail

Complete.

- g) LR to install illegal dumping signs

Illegal ("RID") dumping signs not erected since other signs have recently been removed. Re-erecting may just be removed.

Post meeting note – The installation of the RID signage was completed in late April 2021

- h) LR to reinstall signs to overhead powerlines regarding trespass

Overhead powerline signs have been taken. Possibly by the power provider.

ACTION: LR to discuss relocation of signs outside the powerline easement.

JM: illegal dumping signs in other locations but mattresses, shredded tyres and couch still dumped. George Booth Drive has huge tyre dump – EPA should investigate illegal tyre disposal. Access to tyres from service stations could be source of dumping.

- i) LR to contact Bloomfield to manage weeds

LR discussed weed management with Bloomfield who are not willing to undertake weed control that's not on their property. Daracon manage the road surface and Council manage the roadside.

JM: Council has slashed the roadside recently. A new weed now on roadside of Old Buttai Rd (Noorgoora bur).

ACTION: RF to notify Council's weed team to resolve.

- j) DG to check the status of the fire trail

ACTION: RF to confirm ownership of fire trail with discussions with Crown Land.

6. Daracon status (slide attached)

AIR

Buttai barn #2 results remain elevated and erroneous. All results remain under the annual average EPL criteria.

NOISE

Birds and insects dominate noise

FLORA AND FAUNA

Footprint not change – not clearing.

Maintenance of fire trails

Rehabilitation going well.

New ramp proposed to enable stockpiled overburden to be removed out front gate instead of Southern haul road.

Quarry extending north into the future.

Other issues

1. Road works

JM: Council current work on JRD include RRF road requirements even though RRF not yet approved?

LR: Yes it does consider the proposed future road upgrades required for the RRF. Works Authorisation Deed (WAD) not required by Daracon. Council are undertaking the work

on behalf of TfNSW who have updated their scope of work to incorporate the RRF upgrade.

Left in left out turning restriction only applies if RRF is approved.

Council enquired as to the capacity and timing of receiving excess material at the RRF.

2. Annual Report

CE: thank you to LR for your involvement and good work on the Annual Report. Maps and format much improved.

RF: Yes the Annual Report is perfect for explaining the operations and future plans.

3. RRF meeting

CE: Meeting at Council for RRF was well done and appreciated. It was a great opportunity to speak directly with the key decision makers.

RF: Council not required to have the meeting but it was agreed it was best to work through the issue before the RPP meeting to ensure all issues.

SRL: Appreciate openness and honesty from council.

4. Cameras

Surveillance cameras are still being used at quarry.

Next Meeting:

Will be in touch with Draft RRF CoC.

TBC

(Meeting may be brought forward if the RRF construction is to commence prior to the allocated meeting date).

Attachments

1 – Daracon presentation

2 – RRF Approval Documents

BUTTAI QUARRY COMMUNITY CONSULTATIVE COMMITTEE

MEETING NOTES

9:00am Thursday 14th October 2021
Kurri Kurri Community Centre

Attendees:

Shay Riley-Lewis	Independent Chairperson (PEP Consulting)
Kerry Porter	Cessnock City Council
Janet Murray	Community Representative
Terry Lewin	Community Representative
Colin East	Community Representative
Luke Robinson	Daracon
John Canon	Daracon
Darrin Grey	Cessnock City Council Councillor

1. Welcome and introductions

Kerry Porter (KP) was introduced as representing Cessnock City Council in place of Richard Forbes (RF) for this meeting.

2. Apologies

Dan Smith (Daracon) and Richard Forbes (Council).

3. Minutes

Meeting minutes of 8th April 2021 approved as final.

A new mechanism will be provided shortly for CCC members to access all previous and subsequent CCC meeting notes due to the fact that SRL is stepping down as Independent Facilitator.

4. Actions from previous meeting

- a) Kate Harris (Cessnock City Council) to speak with Newcastle City Council (NCC) to confirm timeframe and process of the Richmond Vale Rail Trail (RVRT) to see if a Cessnock Council representative can attend the next Hunter Central Coast Planning Panel (HCCPP) briefing to address the cross-boundary regional issues.

TL: An amended proposal for the NCC component of the RVRT has recently been on exhibition. The proposal is expected to go the HCCPP by end of the year, but no dates as yet.

The Raymond Terrace extension of the M1 and the Lower Hunter Freight Corridor were both on public exhibition recently. Community groups made submissions to both. Both major projects are aware of the RVRT plans and are working well with the proposal.

The Review of Environmental Factors (REF) for the Cessnock portion of the RVRT is progressing well with more landowner talks required following delays due to Covid.

TL: The CCC want the HCCPP to consider more than just the NCC component.

DG: The Councillor committee that discusses RVRT hasn't met for around 8 months.

ACTION: KP/RF to contact HCCPP requesting CCC involvement in the assessment of the NCC portion of the RVRT before determination by the HCCPP.

ACTION: DG stepping aside on 4 December 2021. DG will arrange a Councillor replacement for the CCC.

- b) Luke Robinson to discuss relocation of 'overhead powerline' signs outside the powerline easement.

LR inspected the powerlines that are very high and determined signs are not required and won't be reinstated.

JM: Dumping hasn't been too much of an issue of late. Ausgrid has recently slashed the area.

LR: Higher surveillance with Council road work has been helping reduce dumping.

- c) Richard Forbes to notify Council's weed team to address the weeds along Buttai Road.

JM: Weed species previously spotted in the roadside is not there now. Slashing by council has helped clear the weeds.

ACTION: Richard Forbes to request Council's weed team add Buttai Road to their weeding schedule.

- d) Richard Forbes to confirm ownership of fire trail with discussions with Crown Land.

CCC wish to confirm the ownership status of the fire trails near the quarry to ensure any Crown land fire trails will not be sold or divested.

ACTION: Richard Forbes to confirm ownership of fire trail with discussions with Crown Land.

5. Daracon presentation

Refer [Attachment 1](#).

Air results are below the annual average limits. Buttai Barn still intermittently producing erroneous results.

Noise monitoring undertaken in February, May and August 2021.

CE: Can the Annual Report include a brief discussion of the results rather than just tables of results?

LR: Specialist noise report included in an Appendix of the Annual Report provides some additional commentary. LR happy to include a more detailed description in the body of the report.

ACTION: Annual Report to include commentary regarding the noise results eg. Noise results complied for the period except for anomalous results due to...

The quarry footprint extending slightly north will require minor tree clearing. Any clearing will be in accordance with Quarry Management Plan – requiring an ecologist to assess any habitat trees.

TL: Is the expansion to the extent of the quarry at RL100?

LR: We acknowledge that the limit of quarrying exists at RL 100, however we will not reach that point at the northern end of the active quarry pit for quite some time. The current northern expansion of the active quarry pit is approximately 50m to 100m north which will allow approximately another 2 years of work. Despite the tree clearing occurring, we will maintain the screen planting to JM's property as best we can.

Fire trails and boundary lines continue to be maintained with ongoing liaison with Rural Fire Service

Blasting all below the criteria.

No incidents or complaints during 2021, apart from slightly elevated DDG levels intermittently and 'hoons' trespassing in the quarry earlier in the year.

Rehabilitation continues to be successful throughout the quarry.

TL: have you stopped using the back road to JRDr?

LR: At this time we're not using it and the RRF excludes its use. Internal ramp allows access to the northern portion of the active quarry pit as required. New down ramp is being formed and will further negate the need to use JRdr access.

Resource Recovery Facility (RRF)

Construction Certificate (CC) is currently being prepared. Site work cannot commence until the CC is approved by Council. Upgrade of Old Buttai Rd is currently undergoing detailed design and investigations. The upgrade of the intersection of Old Buttai Rd and John Renshaw Dr is included in the TfNSW work currently in progress.

The RRF is unlikely to be operational until early 2022, but Daracon will keep the CCC updated as this progresses. The Environment Protection Licence (EPL) variation is currently being prepared in consultation with EPA.

DG: Is the primary hold up the CC? Is Council being helpful through that process?

LR: Yes the CC is the delay, however it is still in Daracon's hands at the moment, taking longer than expected.

JC: The Council plan checking fee of \$50K is more than expected and seems excessive to us, being a lot more than the cost of designing and drawing the plans. Council appears to apply a standard rate per length of road. The cost makes the project almost unviable.

DG: Fees and charges occasionally result in unexpected results that may need a review.

ACTION: RF to check and confirm the appropriateness of the plan checking fee for the road upgrade required for the recycling.

ACTION: DG (or successor) to discuss with RF the need for a report to Council on the plan checking fee formula.

6. Other

- New CCC Facilitator

SRL is stepping down as Independent Facilitator of the Buttai Quarry CCC. A replacement will be appointed before the next CCC meeting.

JM: Bloomfields has new facilitator (Lisa Andrews) however we have not seen enough to recommend anyone yet.

TL: It is an advantage to have someone with some experience with quarries. Particularly local quarries.

ACTION: If anyone has any suggestions for a new Independent Facilitator please let LR know.

7. Next Meeting:

Date for the next CCC meeting to be confirmed. The format will respond to the prevailing Covid restrictions.

Attachments

1 – Daracon presentation

Appendix 3 2021 Community Complaints Register

2021 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>NIL</i>					

Appendix 4 Vegetation Report



Inspired People.
Dedicated Team.
Quality Outcomes.

Our Ref: 22022

3 February 2022

Luke Robinson
Systems Manager
Daracon
20 Kullara Close
Beresfield NSW 2322

E| Luke.Robinson@daracon.com.au

Dear Luke

RE: Buttai Quarry 2021 Annual Rehabilitation Inspection

Umwelt (Australia) Pty Limited (Umwelt) was commissioned by Daracon Group (Daracon) to undertake the 2021 annual monitoring for the rehabilitation areas at Buttai Quarry, John Renshaw Drive, Buchanan. Four areas were subject to monitoring in this monitoring event, and all sites have been monitored previously. All rehabilitated areas appeared to be in moderate to good health. Lot 76 East and West continue to exhibit high diversity and growth, while Bench #2 and #3 exhibit slower growth.

1.0 Methods

The site inspection was undertaken over one day (9 December, 2021) 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. Umwelt, in consultation with Daracon, determined that due to strong establishment of the rehabilitated areas, monitoring methods employed in previous years (involving counting individual plants) was no longer a practical methodology for inspecting the rehabilitation. As discussed in the 2020 report, the rehabilitation has progressed such that it has become increasingly difficult to distinguish between planted and naturally regenerating individuals. Therefore, upon agreement with Daracon, it was decided that a more general walkover assessment would provide a broader picture of the condition of the rehabilitated areas.

A walking traverse of each rehabilitated area was undertaken, with notes made on the following:

- Rapid vegetation assessment (dominant species in each stratum)
- High threat weed presence
- Condition and health, and
- Fauna utilisation.

Management recommendations have also been made where appropriate.

**Umwelt (Australia)
Pty Limited**

ABN 18 059 519 041

T| 1300 793 267
E| info@umwelt.com.au

www.umwelt.com.au

2.0 Results

Table 1 Lot 76 West


Site Name	Lot 76 Western Rehabilitation	
Form	Linear strip	
Adjoining Native Vegetation?	Yes, to north and west	
Establishment date	2017	
High Threat Weeds Present	Lantana (<i>Lantana camara</i>) encroaching from adjoining native vegetation.	
Other Exotics	Some fleabane (<i>Conyza</i> sp.) and spear thistle (<i>Cirsium vulgare</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. This area has regenerated from stripped topsoil and displays high diversity. A few new shrub species were noted during this monitoring event, indicating that individuals are either regenerating from the seedbank or from adjacent remnant vegetation.	
Canopy Description	Height 1 – 7m. Canopy is dense, 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 layer is diverse, 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>). A diverse array of smaller shrubs such as native broom (<i>Viminaria juncea</i>), Australian indigo (<i>Indigofera australis</i>) and spiny bush-pea (<i>Pultenaea spinosa</i>) also occur.	
Ground Cover Description	Height 0.1 – 0.5m. Ground cover is somewhat sparse, likely due to shading from dense canopy layer. Present leguminous species include purple coral pea (<i>Hardenbergia violacea</i>), dusky coral pea (<i>Kennedia rubicunda</i>) and variable glycine (<i>Glycine tabacina</i>).	
Health and Condition	This area is generally in good health, and with a defined structure. Some Acacias are experiencing dieback, however this is to be expected as Acacia species generally have a short lifespan. Some spotted gums dying back in lower limbs as a result of overcrowding. Evidence of fruiting and recruitment for both mid-storey, shrub and canopy species is also present. No substantial erosion was noted in this area.	
Fauna Utilisation	An array of small woodland birds were seen and heard in the area. Superb fairy-wrens appeared to be nesting in a spotted gum.	
Management Recommendations	Nil for this area. Continue to use stripped topsoil for rehabilitation in the future.	

Table 2 Lot 76 East


Site Name	Lot 76 Eastern Rehabilitation	
Form	Linear strip	
Adjoining Native Vegetation?	Yes, to east	
Establishment date	Prior to 2017	
High Threat Weeds Present	Small amounts of Lantana (<i>Lantana camara</i>) encroaching from adjoining native vegetation, some castor oil plant (<i>Ricinus communis</i>) and pampas grass (<i>Cortaderia selloana</i>).	
Other Exotics	Some fleabane (<i>Conyza</i> sp.) and spear thistle (<i>Cirsium vulgare</i>).	
General Description	Linear area of rehabilitated forest adjoining remnant vegetation at the eastern edge of the quarry. There is a bund that has recently been shaped (2021) that extends into this area. The bund is not yet planted, and there is little topsoil that has been used on it. Exotic species appear to be colonising this area.	
Canopy Description	Height 1 – 6m. Canopy is mid-dense, 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 – 3m. 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>). An emerging layer of native rosella (<i>Hibiscus heterophyllus</i>) is appearing either from the seed bank or natural recruitment from adjacent remnant vegetation.	
Ground Cover Description	Height 0.1 – 1m. Ground cover is generally dominated by exotic pasture species such as pigeon grass (<i>Setaria sphacelata</i>) and guinea grass (<i>Megathyrsus maximus</i>). Some leguminous species are present, such as purple coral pea (<i>Hardenbergia violacea</i>) and dusky coral pea (<i>Kennedia rubicunda</i>).	
Health and Condition	This area is generally in good health, and with a defined structure. No diseases or pathogens were recorded. Canopy species are exhibiting many new leaves, which is a positive sign of growth. Some Acacia species are senescing; however, most were flowering at the time of survey. 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	Pasture species will likely become outcompeted over time as the canopy grows and shades the understorey. Weed spraying is recommended on the exposed bund and seeding with native groundcovers such as kangaroo grass (<i>Themeda triandra</i>) and silvertop wallaby grass (<i>Rytidosperma pallidum</i>) to avoid colonisation by tall, exotic pasture grasses that will outcompete natives.	

Table 3 Bench #2



Site Name	Bench #2 (Upper Bench)	
Form	Linear strip along bench	
Adjoining Native Vegetation?	No direct adjoining vegetation.	
Establishment date	2013	
High Threat Weeds Present	Castor oil plant (<i>Ricinus communis</i>) colonising lip of bench.	
Other Exotics	Balloon cotton (<i>Gomphocarpus fruticosus</i>) and purpletop (<i>Verbena bonariensis</i>).	
General Description	Strip of planted vegetation along upper bench of southern side of the quarry. Growth pattern is slightly patchy. Bench faces north-west and is very exposed, particularly to mid-afternoon sun.	
Canopy Description	Height 2 – 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>).	
Mid-storey/Shrub Layer Description	Height 1– 3m. Mid-storey is dominated by Acacias such as green wattle (<i>Acacia decurrens</i>), swamp wattle (<i>Acacia elongata</i>) and sickle wattle (<i>Acacia falcata</i>). Some smaller forest she-oak is present.	
Ground Cover Description	Height 0.1 – 1m. Ground cover is sparse, comprising exotic pasture species such as red natal grass (<i>Melinis repens</i>), Rhodes grass (<i>Chloris gayana</i>) and natives such as two-colour panic (<i>Panicum simile</i>).	
Health and Condition	Canopy exhibiting signs of active growth. Some Eucalypts with mistletoes, and a high proportion of the canopy and mid-storey species are flowering and fruiting. Ground texture is extremely rocky, and it is possible that the soil profile may be hindering the growth of the rehabilitation. There is a large and prominent erosion rill at the far west end of the bench, however this is a known issue and it is becoming colonised and stabilised by <i>Acacia</i> species.	
Fauna Utilisation	No obvious signs of fauna utilisation.	
Management Recommendations	Spraying of the castor oil plant along the lip of the bench 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 4 Bench #3

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 and 2020).	
High Threat Weeds Present	Castor oil plant (<i>Ricinus communis</i>) colonising lip of bench.	
Other Exotics	Balloon cotton (Gomphocarpus fruticosus) and purpletop (Verbena bonariensis).	
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. Some supplementary plantings were made in 2020, which have mostly survived.	
Canopy Description	Height 1.5 – 5m. Canopy is open and appears to be slightly more stunted than the plantings on Bench #2. The 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>).	
Mid-storey/Shrub Layer Description	Height 1– 2m. 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 are regenerating and flowering.	
Ground Cover Description	Height 0.1 – 1m. Ground cover is patchy, with a variety of both native and exotic species. These include Rhodes grass (<i>Chloris gayana</i>), kidney weed (<i>Dichondra repens</i>), Paddys lucerne (<i>Sida rhombifolia</i>) and couch (<i>Cynodon dactylon</i>).	
Health and Condition	Rehabilitation is very patchy and the canopy has some noticeable gaps. Plantings in these gaps have been largely successful, though growth has been slow given the exposed western aspect of the bench. Some mistletoes are present in Eucalypt species.	
Fauna Utilisation	A small woodland bird nest was recorded in a Eucalypt.	
Management Recommendations	Spraying of the castor oil plant along the lip of the bench is recommended. If surplus stripped topsoil is available, it would be worthwhile spreading on some of the sparser areas along Bench #3 to promote growth.	

3.0 Conclusion and Future Management Recommendations

The rehabilitation occurring at Buttai Quarry appears to be largely in good health and marginally improved from 2020 in terms of active growth and diversity. The extra plantings in Bench #3 appear to have a high survival rate, though will likely continue to have a slow growth rate due to the exposed conditions of the bench. Regeneration was most prolific in Lot 76 East and Lot 76 West and this is likely due to the natural stripped topsoil that was spread on the rehabilitated areas. The new bund at Lot 76 East is starting to become colonised by undesirable exotic species which will likely spread if not controlled in the near future.

Future management recommendations include:

- Continued monitoring of all rehabilitation areas using this streamlined approach.
- The 2022 monitoring event could utilise fixed photo monitoring points for future comparison.
- Some occurrences of lantana (*Lantana camara*) were recorded in Lot 76 West, castor oil plant (*Ricinus communis*) on Bench #2 and #3 and pampas grass (*Cortaderia selloana*) on Lot 76 East. It is recommended that these infestations are controlled while they are small.
- Exotic groundcovers colonising the exposed bund at Lot 76 East should be sprayed, and the bund should be either hand seeded or treated with stripped topsoil to prevent the spread of exotics.
- 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.

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

A handwritten signature in blue ink, appearing to read 'Amber Wilson'.

Amber Wilson
Ecologist

Appendix 5 Images of Quarry

Panoramic image of Buttai Quarry (bench 3 rehab' in the foreground) – April 2021



Panoramic image of Buttai Quarry - October 2021



Rehabilitation images of the quarry (Lings Rd and quarry site) – April 2021

Rehabilitation images of the quarry (Lings Rd and quarry site) – December 2021

Buttai Quarry Bench #2 rehabilitation – April 2021***Buttai Quarry Bench #2 rehabilitation – October 2021***

Buttai Quarry stockpile area – April 2021***Buttai Quarry operational pit area – December 2021***

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

