



Buttai Quarry

Community Consultative Committee Meeting
April 2023

- Issues arising from previous meetings;
- Summary of operations;
- Overview of quarry operations:
 - Air quality;
 - Noise;
 - Flora and Fauna management;
 - Blast Management;
 - Incidents / Complaints
 - Rehabilitation;
- Planned quarry activities for 2023;
- Resource Recovery Facility (RRF) update;

- Previous meeting minutes reviewed with any outstanding actions noted and agreed;
- Kate Baartz to allocate actions and responsibilities for all ongoing items;
- A detailed explanation of 'trigger levels' for blast monitoring will be provided by Precision Drill and Blast;

- Precision Drill and Blast will provide a detailed explanation and demonstration of the blast monitoring process including the allocation of 'trigger levels'.



- Quarrying continuing in Lot 76;
- Crushing and stockpiling of quarried materials continuing;
- The quarry continues to provide various construction materials for the local industry and government sector;
- 2022 was very busy from a quarrying perspective however persistent wet weather had an adverse impact on overall sales;
- A total of 7 blasts were conducted during 2022;
- The Resource Regulator (previously Department of Primary Industries) undertook 1 inspection and 1 remote audit during 2022;

- 1 external site inspection occurred during 2022 (Rubicon);
- 3 Internal Environmental Audits occurred during 2022;

- **Air quality**
 - Assessed against NSW EPA Annual Average Criterion ($4 \text{ g/m}^2/\text{month}$) for Dust Deposition Gauges (DDG);
 - All annual average results received for all DDG's were below the $4 \text{ g/m}^2/\text{month}$ threshold including the Buttai Barn result;
 - We continue to report the elevated results obtained at 'Buttai Barn' and intermittently at 'Buttai Barn #2, however they intermittently appear to be erroneous and inconsistent with the adjacent DDG monitors;

Overview of quarry operations

Air quality monitoring results January to December 2022

	D1 - Tetratheca	D2 - Norma	D3 - Buttai Barn	D4 - Bishop	D5 - Buttai Barn #2
17/12/22 to 14/01/22	0.7	0.8	0.9	5.2	1.2
14/01/22 to 11/02/22	0.8	1.9	2.7	3.5	0.6
11/02/22 to 11/03/22	2.1	2.4	5.6	2	0.8
11/03/22 to 08/04/22	0.6	3.3	5.9	3.4	5.5
8/4/22 to 6/5/22	0.2	4.2	4.2	0.6	1.2
6/5/22 to 3/6/22	0.2	2.8	4	1.5	0.7
3/6/22 to 1/7/22	0.4	1.8	2.5	0.4	0.2
1/7/22 to 29/7/22	0.5	0.4	3.3	1	1.5
29/7/22 to 26/8/22	0.7	1.6	14.1	6.5	1.7
26/8/22 to 23/9/22	0.3	2.2	1.5	1.5	4
23/09/22 to 21/10/22	0.4	2.4	2.5	1.3	2.8
21/10/22 to 18/11/22	0.9	3	1.1	1	0.6
18/11/22 to 16/12/22	0.7	1.2	0.5	0.9	0.4
Annual Average	0.65	2.15	3.75	2.22	1.63

- **Noise**

- Noise monitoring is undertaken by Spectrum Acoustics who conducted 4 monitoring sessions during 2022. This is in accordance with the noise management plan;
- All results obtained were within the specified limits;

Overview of quarry operations

Noise monitoring results for 2022

Table 1 Buttai Quarry Noise Monitoring Results – 23 February 2022				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	9:25 am	44	1.5 m/s SE	Birds (43), traffic (35), planes (30), BQ occasionally audible
2	10:05 am	40	2.0 m/s ESE	Birds (40), traffic (30), construction noise (28), BQ inaudible
3	9:45 am	46	1.5 m/s SE	Birds (46), traffic (32), BQ occasionally audible

Table 1 Buttai Quarry Noise Monitoring Results – 26 May 2022				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	12:02 pm	46	1.5 m/s N	Birds (44), traffic (42), BQ occasionally audible
2	12:44 pm	43	1.0 m/s NW	Birds (41), traffic (37), BQ inaudible
3	12:25 pm	40	1.0 m/s N	Frogs & birds (39), traffic (32), BQ inaudible

Overview of quarry operations

Table 1

Buttai Quarry Noise Monitoring Results – 29 August 2022

Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	1:30 pm	43	2.0 m/s N	Birds (42), traffic (37), BQ inaudible
2	12:40 pm	36	2.5 m/s ENE	Birds (33), traffic (33), BQ inaudible
3	1:00 pm	38	2.0 m/s N	Frogs & birds (40), traffic (30), BQ inaudible

Table 1

Buttai Quarry Noise Monitoring Results – 29 November 2022

Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	10:25 am	40	1.0 m/s SE	Birds & insects (38), traffic (36), BQ inaudible
2	9:40 am	37	1.0 m/s SW	Birds & insects (36), traffic (30), BQ inaudible
3	10:00 am	42	1.0 m/s SW	Plant noise ¹ (42), birds (32), BQ inaudible

¹ not quarry related (see text)

At location 3 the noise measurement was significantly influenced by noise from plant operating to the north east of the monitoring location. This is the opposite direction to BQ. The noise was possible related to land clearing activities.

- **Flora and Fauna**

- The quarry footprint and extent of clearing was recently altered along the northern and eastern edges of the quarry pit;
- Wild Thing Ecological services were again engaged to inspect and plan for clearing operations whilst also assisting during vegetation removal activities;
- Maintenance of fire trails and boundary lines continued to occur during 2022;
- Ongoing consultation with the Rural Fire Service (RFS) continues to occur as necessary;

- **Blast Management**
 - 7 blasts were conducted during 2022 with all being within the allowable limits;

Overview of quarry operations

Blast monitoring results for 2022

			Norma Brookes		Lings Rd		Buttai Barn	
Date	Time	Blast No.	PPV mm/s	O/pressure dBL	PPV mm/s	O/pressure dBL	PPV mm/s	O/pressure dBL
18/01/2022	12:26	P_102	No trigger	No trigger	No trigger	No trigger	No trigger	No trigger
18/03/2022	13:03	P_103	0.42	108.2	No trigger	No trigger	No trigger	No trigger
24/05/2022	13:56	P_104	No trigger	No trigger	No trigger	No trigger	No trigger	No trigger
20/07/2022	14:10	P_105	0.99	110.6	1.59	106.1	No trigger	No trigger
30/08/2022	11:16	P_106	1.18	110.4	No trigger	No trigger	0.73	97.8
21/09/2022	11:54	P_107	0.92	102.1	No trigger	No trigger	No trigger	No trigger
01/11/2022	14:23	P_108	No trigger	No trigger	No trigger	No trigger	0.96	103.2

- **Incidents / complaints**

- Apart from some slightly elevated DDG results, there were no significant incidents or complaints during 2022 other than trespassing and the presence of a Cleanaway truck on Lings Rd;

- **Rehabilitation**

- Maintenance of the rehabilitation of Bench 2 and 3 continued during 2022 including some additional planting on Bench #3 in September 2022;
- Maintenance of various other rehabilitated areas also occurred during 2022;
- Images overleaf show the progress of planted areas including the additional planting that occurred in early 2023 on Bench #2 (top-down planting);

Overview of quarry operations



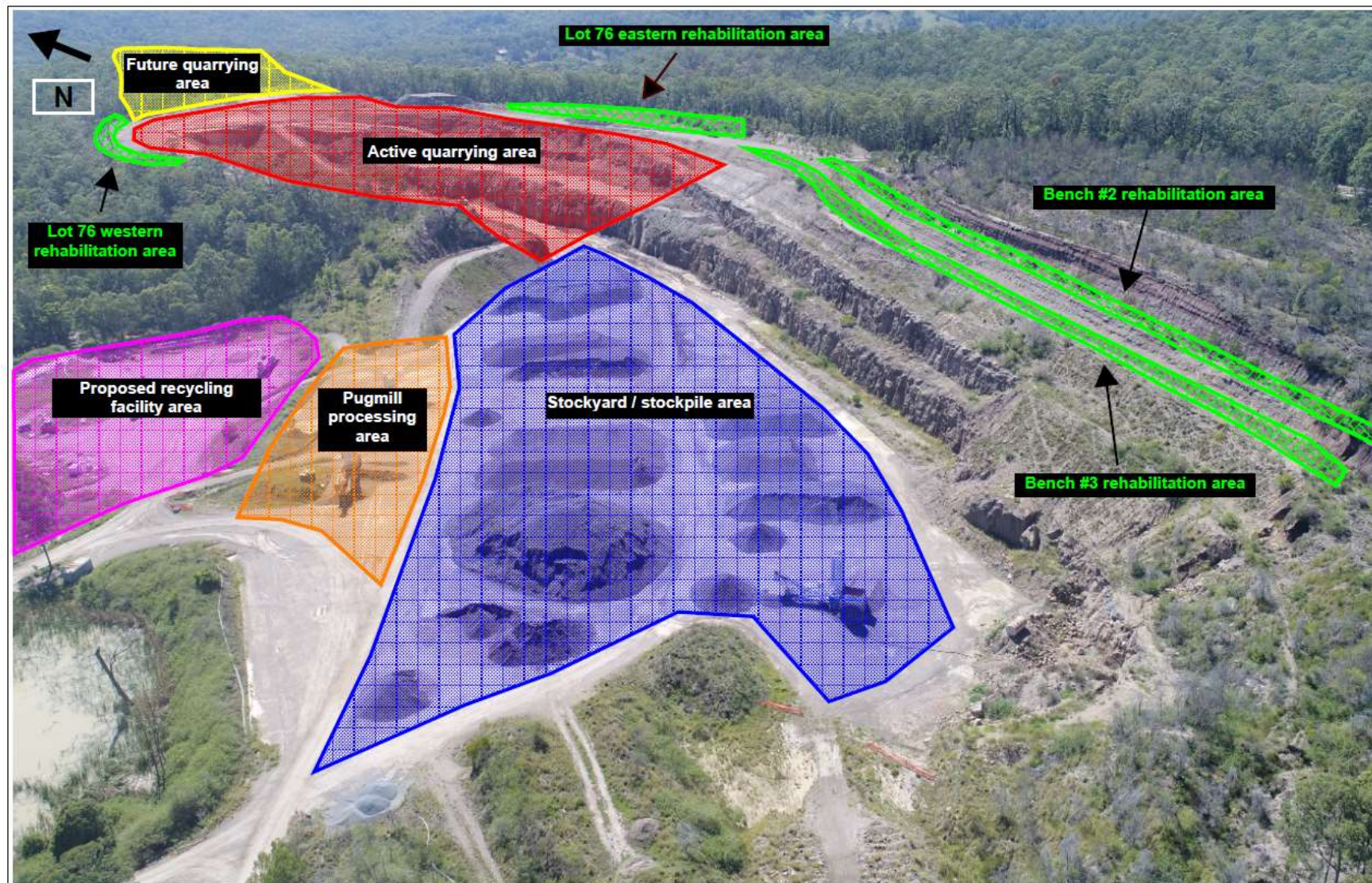
Overview of quarry operations



Overview of quarry operations



Overview of quarry operations



- Further extraction and sale of quarried materials;
- Continued dust, noise and blast monitoring;
- Continued maintenance of rehabilitation work as required;
- Progression of the Resource Recovery Facility (RRF);
- Progression of the temporary increase in laden truck movements from the quarry DA;

- The RRF was approved in June 2021;
- Following receipt of the approval, we continue to work closely with a number of consultants to progress the Construction Certificate (CC) for the RRF;
- The ongoing Cessnock City Council review of the Old Buttai road upgrade design drawings is taking a lot longer than expected;
- We recently completed a Road Safety Audit on the proposed Old Buttai Rd design and responded to Cessnock Council's Traffic Committee;
- As usual, we'll keep the CCC informed as the development of the RRF progresses;

- An extraordinary meeting with the CCC occurred in August 2022 to discuss a specific need to temporarily increase laden truck movements from the quarry (due to unprecedented demand and wet weather impacts);
- After much thought and consideration of all alternatives, it was agreed that a 'standalone DA' was the most appropriate scenario;
- The 'standalone DA' would have a specific duration for its operation and will require Daracon and their consultant to submit an Environmental Assessment to support the DA;

- Daracon re-engaged with their Traffic Consultant and the 'standalone DA' was submitted to Council on the 21st March 2023;
- This is currently on exhibition by Council. Submissions can be made via the following link:

<https://datracker.cessnock.nsw.gov.au/application/ApplicationDetails/008/2023/00000217/001/>

Further questions?



Buttai Quarry

Community Consultative Committee Meeting
October 2022

- Issues arising from previous meetings;
- Summary of operations;
- Overview of quarry operations:
 - Air quality;
 - Noise;
 - Flora and Fauna management;
 - Blast Management;
 - Incidents / Complaints
 - Rehabilitation;
- Planned quarry activities for 2022;
- Resource Recovery Facility (RRF) update;

- Previous meeting minutes reviewed with any outstanding actions noted and agreed;
- Kate Baartz to allocate actions and responsibilities for all ongoing items;
- A brief explanation of 'Trigger Levels' for blast monitoring is provided on the next slide as a representative from the Blasting Contractor (Precision Brill and Blast) was unfortunately unable to attend this meeting;

- A question was asked in the last meeting about blast 'Trigger Levels' and a brief explanation is provided below:
 - *The trigger level is the point at which a vibration event will cause the blast monitor (seismograph) to record the event. If a blast vibration does not exceed this threshold level the instrument will not activate to record the blast ("No Trigger"). A trigger level is necessary because the instrument would continually record vibration events that may not be a blast and will eventually use all the storage space the seismograph has to hold vibration data. If all of this storage space is used by non-blasting events, valuable blast vibration data could be lost. The trigger level will normally be set just high enough to filter out some normal environmental vibrations, but well below the level at which a violation or damage will occur. A seismograph may be activated by anything that will produce a vibration higher than the present trigger level. Examples of items that may cause a vibration high enough to trigger a seismograph are lawn mowers, weed trimmers, kids playing near the seismograph, etc.*
 - *A trigger level is also set for the microphone, or the acoustic channel, which measures the airblast. Trigger levels for the microphone are normally set high enough to prevent wind or even thunder from constantly activating the instrument. The acoustic channel measures the airblast in decibels (dB).*

- Quarrying continuing in Lot 76;
- Crushing and stockpiling of quarried materials continuing;
- The quarry continues to provide various construction materials for the local industry and government sector;
- 2022 has been very busy from a quarrying and sales perspective however persistent wet weather continues to have an adverse impact on sales;
- A total of 6 blasts were conducted during 2022 so far;
- The Resource Regulator (previously Department of Primary Industries) undertook 1 inspection and 1 remote audit during 2022 so far;

- 1 external site inspection occurred during 2022 so far (Rubicon);
- 2 Internal Environmental Audits occurred during 2022 so far;

- **Air quality**

- Assessed against NSW EPA Annual Average Criterion ($4 \text{ g/m}^2/\text{month}$) for Dust Deposition Gauges (DDG);
- All annual average results received for all DDG's were below the $4 \text{ g/m}^2/\text{month}$ threshold apart from Buttai Barn;
- We continue to report the elevated results obtained at 'Buttai Barn' and intermittently at 'Buttai Barn #2'; however, they appear to be erroneous and inconsistent with the adjacent DDG monitors (for example Buttai Barn held a bonfire adjacent to the DDG recently which adversely impacted the result (image overleaf));

Overview of quarry operations



Overview of quarry operations

Air quality monitoring results January to August 2022

	D1 - Tetratheca	D2 - Norma	D3 - Buttai Barn	D4 - Bishop	D5- Buttai Barn 2
17/12/22 to 14/01/22	0.7	0.8	0.9	5.2	1.2
14/01/22 to 11/02/22	0.8	1.9	2.7	3.5	0.6
11/02/22 to 11/03/22	2.1	2.4	5.6	2	0.8
11/03/22 to 08/04/22	0.6	3.3	5.9	3.4	5.5
8/4/22 to 6/5/22	0.2	4.2	4.2	0.6	1.2
6/5/22 to 3/6/22	0.2	2.8	4	1.5	0.7
3/6/22 to 1/7/22	0.4	1.8	2.5	0.4	0.2
1/7/22 to 29/7/22	0.5	0.4	3.3	1	1.5
29/7/22 to 26/8/22	0.7	1.6	14.1	6.5	1
26/8/22 to 23/9/22	0.3	2.2	1.5	1.5	4
Annual Average to date	0.65	2.14	4.47	2.56	1.67

- **Noise**

- Noise monitoring is undertaken by Spectrum Acoustics who conducted 3 monitoring sessions during 2022 so far. This is in accordance with the noise management plan;
- All results obtained were within the specified limits;

Overview of quarry operations

Noise monitoring results for 2022

Table 1 Buttai Quarry Noise Monitoring Results – 23 February 2022				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	9:25 am	44	1.5 m/s SE	Birds (43), traffic (35), planes (30), BQ occasionally audible
2	10:05 am	40	2.0 m/s ESE	Birds (40), traffic (30), construction noise (28), BQ inaudible
3	9:45 am	46	1.5 m/s SE	Birds (46), traffic (32), BQ occasionally audible

Table 1 Buttai Quarry Noise Monitoring Results – 26 May 2022				
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1	12:02 pm	46	1.5 m/s N	Birds (44), traffic (42), BQ occasionally audible
2	12:44 pm	43	1.0 m/s NW	Birds (41), traffic (37), BQ inaudible
3	12:25 pm	40	1.0 m/s N	Frogs & birds (39), traffic (32), BQ inaudible

Table 1 Buttai Quarry Noise Monitoring Results – 29 August 2022				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	1:30 pm	43	2.0 m/s N	Birds (42), traffic (37), BQ inaudible
2	12:40 pm	36	2.5 m/s ENE	Birds (33), traffic (33), BQ inaudible
3	1:00 pm	38	2.0 m/s N	Frogs & birds (40), traffic (30), BQ inaudible

- **Flora and Fauna**

- The quarry footprint and extent of clearing was recently altered along the eastern edge of the quarry pit;
- Wild Thing Ecological services were again engaged to inspect and plan for clearing operations whilst also assisting during vegetation removal activities;
- Maintenance of fire trails and boundary lines continued to occur during 2022;
- Ongoing consultation with the Rural Fire Service (RFS) continues to occur as necessary;

- **Blast Management**
 - 6 blasts have been conducted during 2022 so far with all being within the allowable limits;

Overview of quarry operations

Blast monitoring results for 2022

Date	Time	Blast No.	Norma Brookes		Lings Rd		Buttai Barn	
			PPV mm/s	O/pressure dBL	PPV mm/s	O/pressure dBL	PPV mm/s	O/pressure dBL
18/01/2022	12:26	P_102	No trigger	No trigger	No trigger	No trigger	No trigger	No trigger
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21/09/2022	11:54	P_107	0.92	102.1	No trigger	No trigger	No trigger	No trigger

- **Incidents / complaints**

- Apart from some slightly elevated DDG results, there were no significant incidents or complaints during 2022 so far;
- Recent trespassing appears to have increased lately, mostly for the purpose of stealing fuel. Geoff Reeves has implemented additional controls to mitigate recurrence;

- **Rehabilitation**

- Maintenance of the rehabilitation of Bench 2 and 3 continued during 2022 including some additional planting on Bench #3 in September 2022;
- Maintenance of various other rehabilitated areas also occurred during 2022;
- Images overleaf show the progress of planted areas including the additional planting that occurred in September 2022 on Bench #3;

Overview of quarry operations



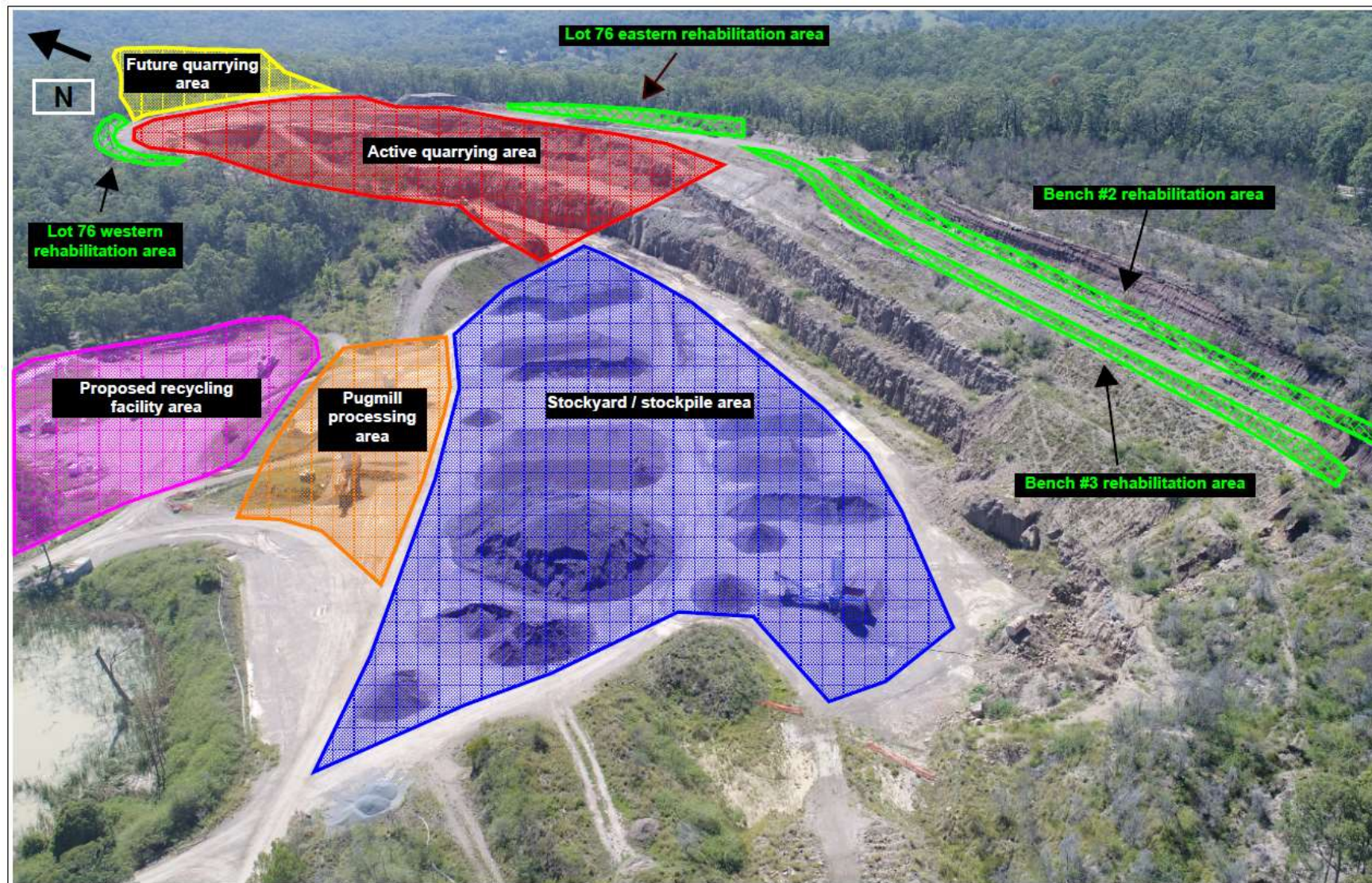
Overview of quarry operations



Overview of quarry operations



Overview of quarry operations



- Further extraction and sale of quarried materials;
- Continued dust, noise and blast monitoring;
- Continued maintenance of rehabilitation work as required;
- Progression of the Resource Recovery Facility (RRF);

- The RRF was approved in June 2021;
- Following receipt of the approval, we continue to work closely with a number of consultants to progress the Construction Certificate (CC) for the RRF;
- The Cessnock City Council review of the Old Buttai road upgrade design drawings is taking a lot longer than expected and we're now required to undertake a Road Safety Audit on the proposed Old Buttai Rd design in order to respond to Cessnock Council's Traffic Committee;
- As usual, we'll keep the CCC informed as the development of the RRF progresses;

- An extraordinary meeting with the CCC occurred recently to discuss a specific need to temporarily increase laden truck movements from the quarry (due to unprecedented demand and wet weather impacts);
- The CCC understood the situation and provided advice regarding a potential mechanism for this to occur;
- Following the extraordinary CCC meeting, Daracon engaged the services of a consultant to assist with the process;
- Another meeting occurred on the 30th September with Council to discuss the most appropriate mechanism;

- After much thought and consideration of all alternatives, it currently appears that a 'standalone DA' is the most likely scenario;
- The 'standalone DA' would have a specific duration for its operation and will require Daracon and their consultant to submit an Environmental Assessment to support the DA;
- The next step is for Daracon to re-engage with their Traffic Consultant to inform the 'standalone DA';
- This is currently ongoing;

Further questions?



Buttai Quarry

Community Consultative Committee Meeting
April 2022

- Kate Baartz introduction;
- Please welcome Kate Baartz to her first Buttai CCC meeting as the Independent Facilitator;
- Kate Baartz inspected the site and surrounding areas recently, so her knowledge of the site is improving;

- Issues arising from previous meetings;
- Summary of operations;
- Overview of quarry operations:
 - Air quality;
 - Noise;
 - Flora and Fauna management;
 - Blast Management;
 - Incidents / Complaints
 - Rehabilitation;
- Planned quarry activities for 2022;
- Resource Recovery Facility (RRF) update;

- Previous meeting minutes reviewed with any outstanding actions noted and agreed;
- Kate Baartz to allocate actions and responsibilities for all ongoing items;

- Quarrying continuing in Lot 76;
- Crushing and stockpiling of quarried materials continuing;
- The quarry continues to provide various construction materials for the local industry and government sector;
- 2021 started relatively slowly from a quarrying and sales perspective however it improved slightly in the middle of 2021 and tapered again at the end of 2021;
- A total of 9 blasts were conducted during 2021 in total;
- The Resource Regulator (previously Department of Primary Industries) undertook 1 inspection and 1 remote audit during 2021;

- 1 external site inspection occurred during 2021 (Rubicon);
- 3 Internal Environmental Audits occurred during 2021;

- **Air quality**
 - Assessed against NSW EPA Annual Average Criterion ($4 \text{ g/m}^2/\text{month}$) for Dust Deposition Gauges (DDG);
 - All annual average results received for all DDG's were below the $4 \text{ g/m}^2/\text{month}$ threshold;
 - We continue to report the elevated results obtained at 'Buttai Barn' and intermittently at 'Buttai Barn #2'; however, they appear to be erroneous and inconsistent with the adjacent DDG monitors;

Overview of quarry operations

Air quality monitoring results January to December 2021

	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

- **Noise**
 - Noise monitoring is undertaken by Spectrum Acoustics who conducted 4 monitoring sessions during 2021. This is in accordance with the noise management plan;
 - All results obtained were within the specified limits;

Overview of quarry operations

Noise monitoring results for 2021

	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

- **Flora and Fauna**

- The quarry footprint and extent of clearing altered slightly as the top of the quarry face extends to the north;
- Wild Thing Ecological services were engaged to inspect and plan for clearing operations whilst also assisting during vegetation removal activities;
- Maintenance of fire trails and boundary lines continued to occur during 2021;
- Ongoing consultation with the Rural Fire Service (RFS) continues to occur regularly;

- **Blast Management**
 - 9 blasts were conducted during 2021 with all being within the allowable limits;

Overview of quarry operations

Blast monitoring results for 2021

			Norma Brookes		Lings Rd		Buttai Barn	
Date	Time	Blast No.	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

- **Incidents / complaints**
 - Apart from some slightly elevated DDG results, there were no incidents or complaints during 2021;

- **Rehabilitation**

- Maintenance of the rehabilitation of Bench 2 and 3 continued during 2021;
- Maintenance of various other rehabilitated areas also occurred during 2021;
- Images overleaf show the progress of planted areas;

Overview of quarry operations



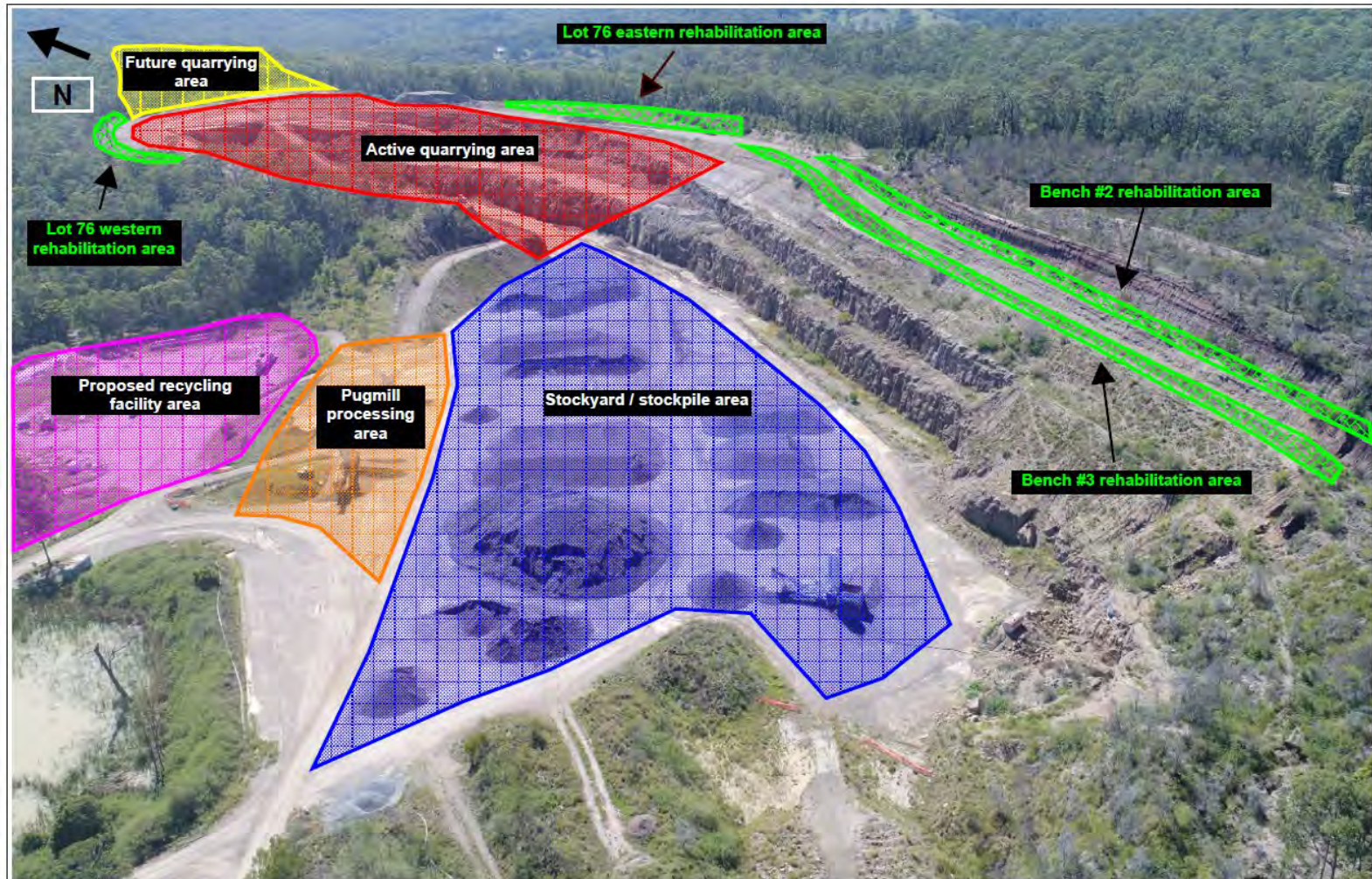
Overview of quarry operations



Overview of quarry operations



Overview of quarry operations



- Further extraction and sale of quarried materials;
- Continuation of dust, noise and blast monitoring;
- Continued maintenance of rehabilitation work as required;
- Progression of the Resource Recovery Facility (RRF);

- The RRF was approved in June 2021;
- Following receipt of the approval, we've been working closely with a number of consultants to progress the Construction Certificate (CC) for the RRF;
- We've also been consulting with the EPA regarding the EPL variation required to combine the quarry and RRF operations;
- These processes are ongoing and we hope to be able to operate the RRF by late 2022;
- As usual, we'll keep the CCC informed as the development of the RRF progresses;

Further questions?



Buttai Quarry

Community Consultative Committee Meeting
October 2021

PLEASE NOTE DUE TO THE PRESENCE OF THE
COVID-19 VIRUS (DELTA STRAIN), THE OCTOBER 2021
COMMUNITY CONSULTATIVE COMMITTEE MEETING
OCCURRED REMOTELY

- Issues arising from previous meetings;
- Summary of operations;
- Overview of quarry operations:
 - Air quality;
 - Noise;
 - Flora and Fauna management;
 - Blast Management;
 - Incidents / Complaints
 - Rehabilitation;
- Planned quarry activities for 2022;
- Resource Recovery Facility (RRF) update;

- Previous meeting minutes reviewed with any outstanding actions noted and agreed;
- SRL to allocate actions and responsibilities for all ongoing items;

- Quarrying continuing in Lot 76;
- Crushing and stockpiling of quarried materials continuing;
- The quarry continues to provide various construction materials for the local industry and government sector;
- 2021 started as a relatively slow year from a quarrying and sales perspective, but sales have increased as the year progressed;
- A total of 8 blasts were conducted during 2021 so far;
- The Resource Regulator (previously Department of Primary Industries) have undertaken 1 inspection and 1 remote audit during 2021 so far;

- No external site inspections have occurred during the latter part of 2021 due to Covid-19;
- 2 Internal Environmental Audits were completed during 2021 so far;
- 1 Rubicon external Environmental Audit conducted;

- **Air quality**
 - Assessed against NSW EPA Annual Average Criterion ($4 \text{ g/m}^2/\text{month}$) for Dust Deposition Gauges (DDG);
 - All annual average results were below the $4 \text{ g/m}^2/\text{month}$ threshold;
 - We continue to report the elevated results obtained at “Buttai Barn”, however they appear to be erroneous and inconsistent with the adjacent DDG monitors;

Overview of quarry operations

Air quality monitoring results January to September 2021

	D1 - Tetratheca	D2 - Norma	D3 - Buttai Barn	D4 - Bishop	D5 - Buttai Barn #2
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
2021 Average Jan to Sept	0.7	1.5	2.2	2.2	1.8

- **Noise**
 - Noise monitoring is undertaken by Spectrum Acoustics who've conducted 3 monitoring sessions during 2021 so far. This is in accordance with the noise management plan;
 - The 9 results obtained were within the specified limits;

Overview of quarry operations

Noise monitoring results for 2021 so far

Table 1 Buttai Quarry Noise Monitoring Results – 24 February 2021				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
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)

Table 1 Buttai Quarry Noise Monitoring Results – 26 May 2021				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
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)

Overview of quarry operations

Table 1 Buttai Quarry Noise Monitoring Results – 18 August 2021				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
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

- **Flora and Fauna**

- The quarry footprint and extent of clearing will alter slightly as the top of the quarry face extends to the north shortly;
- Wild Thing Ecological services have been engaged to inspect and plan for clearing operations whilst also assisting during vegetation removal activities;
- Maintenance of fire trails and boundary lines continued to occur during 2021;
- Ongoing consultation with the Rural Fire Service (RFS) continues to occur regularly;

- **Blast Management**
 - 8 blasts were conducted during 2021 so far with all being within the allowable limits;

Overview of quarry operations

Blast monitoring results for 2021 so far

			Norma Brookes		Lings Rd		Buttai Barn	
Date	Time	Blast No.	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

- **Incidents / complaints**
 - Apart from some slightly elevated DDG results and 'hoons' damaging gates on site, there have been no incidents or complaints during 2021 so far;

- **Rehabilitation**

- Maintenance of the rehabilitation of Bench 2 and 3 continued during 2021;
- Maintenance of various other rehabilitated areas also occurred during 2021;
- Images overleaf show the progress of planted areas;

Overview of quarry operations



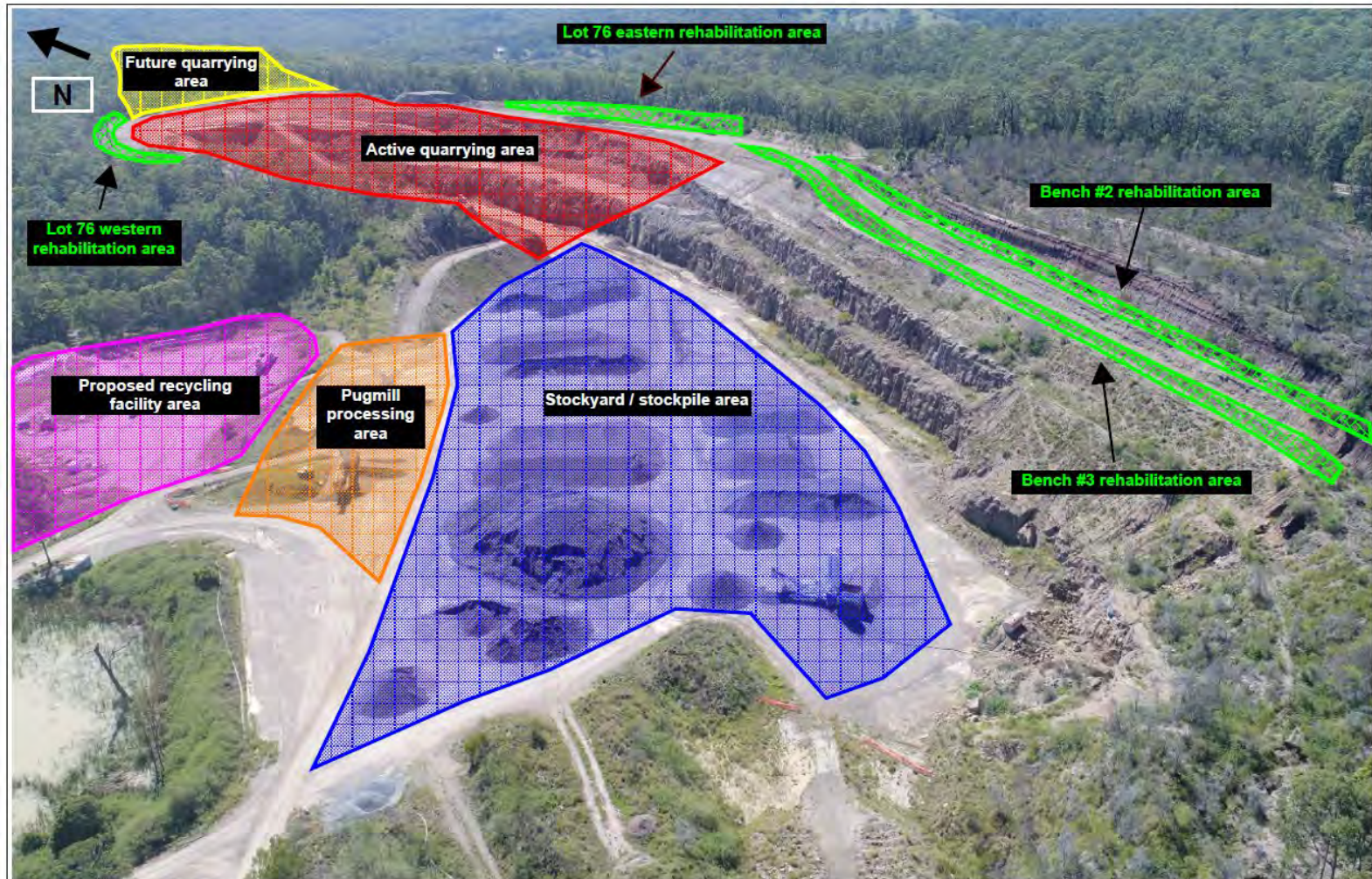
Overview of quarry operations



Overview of quarry operations



Overview of quarry operations



- Further extraction and sale of quarried materials;
- Continuation of dust, noise and blast monitoring;
- Continued maintenance of rehabilitation work as required;
- Progression of the Resource Recovery Facility (RRF);

- The RRF was approved in June 2021;
- Following receipt of the approval, we've been working closely with a number of consultants to progress the Construction Certificate (CC) for the RRF;
- We've also been consulting with the EPA regarding the EPL variation required to combine the quarry and RRF operations;
- These processes are ongoing and we hope to be able to operate the RRF by early 2022;
- As usual, we'll keep the CCC informed as the development of the RRF progresses;

Further questions?



Buttai Quarry

Community Consultative Committee Meeting
April 2021

PLEASE NOTE DUE TO THE PRESENCE OF THE
COVID-19 VIRUS AND SUBSEQUENT EASING OF
RESTRICTIONS, THE APRIL 2021 COMMUNITY
CONSULTATIVE COMMITTEE MEETING OCCURRED IN
PERSON WITH PHYSICAL DISTANCING AND HYGIENE
PROTOCOLS IMPLEMENTED

- Issues arising from previous meetings;
- Summary of operations;
- Overview of quarry operations:
 - Air quality;
 - Noise;
 - Flora and Fauna management;
 - Blast Management;
 - Incidents / Complaints
 - Rehabilitation;
- Planned quarry activities for 2021;
- Resource Recovery Facility update;

- Previous meeting minutes reviewed with any outstanding actions noted and agreed;
- SRL to allocate actions and responsibilities for all ongoing actions;

- Quarrying continuing in Lot 76;
- Crushing and stockpiling of quarried materials continuing;
- The quarry continues to provide various construction materials for the local industry and government sector;
- 2020 was a relatively slow year from a quarrying and sales perspective;
- A total of 5 blasts were conducted during the reporting period;
- The Resource Regulator (previously Department of Primary Industries) undertook 1 inspection during the reporting period;
- The EPA undertook 1 inspection during the reporting period;

- 2 Internal Environmental Audits were completed during the reporting period;
- 1 Rubicon external Environmental Audit conducted;

- **Air quality**
 - Assessed against NSW EPA Annual Average Criterion ($4 \text{ g/m}^2/\text{month}$) for Dust Deposition Gauges (DDG);
 - All annual average results were below the $4 \text{ g/m}^2/\text{month}$ threshold;
 - We continue to report the elevated results obtained at “Buttai Barn”, however they appear to be erroneous and inconsistent with the adjacent DDG monitors;

Overview of quarry operations

Air quality monitoring results

	D1 - Tetratheca	D2 - Norma	D3 - Buttai Barn	D4 - Bishop	D5 - Buttai Barn #2
20/12/19 to 17/01/20	2.7	2.2	5.3	2.1	3
17/01/20 to 14/02/20	0.9	3.3	2.7	2	2.2
14/02/20 to 13/03/20	4.1	1.3	1.2	1.6	1.1
13/03/20 to 09/04/20	1.3	1.4	3.1	1.4	0.4
09/04/20 to 08/05/20	1	0.8	4.2	1.3	0.6
08/05/20 to 05/06/20	0.4	0.7	1.1	0.9	0.7
05/06/20 to 03/07/20	0.5	1.3	1.7	1.3	0.4
03/07/20 to 31/07/20	0.2	0.6	1.3	0.5	0.2
31/07/20 to 28/08/20	0.4	0.7	4	0.7	0.2
28/08/20 to 25/09/20	2.2	1	1.9	0.5	0.3
25/09/20 to 23/10/20	2.7	0.8	2.2	1	0.8
23/10/20 to 20/11/20	1	1.2	4.2	0.7	3.9
20/11/20 to 18/12/20	1.5	1.5	3.4	1.5	0.9
Annual Average	1.5	1.3	2.8	1.2	1.1

- Investigations into the ongoing elevated DDG levels reported at “Buttai Barn” continue to indicate the following;
 - Elevated levels of algae, vegetation and insects;
 - Ground and vegetation disturbance on private property adjacent to the “Buttai Barn” DDG;
 - Ongoing substantial discrepancies between the DDG results obtained at “Buttai Barn” and “Buttai Barn #2”;
 - Severe drought conditions experienced during 2019 and into early 2020;

- **Noise**

- Noise monitoring is undertaken by Spectrum Acoustics who conducted 4 monitoring sessions during 2020. This is in accordance with the noise management plan;
- The 12 results obtained were within the specified limits;

Overview of quarry operations

Noise monitoring results

	Buttai Quarry (BQ) Noise Monitoring				
	Location	Time	dB(A)	Wind Speed and Direction	Identified Noise Sources
27-Feb-20	1	10:00 am	37	2.5 m/s SW	Birds & insects (36), traffic (28), BQ inaudible (<20)
	2	10:26 am	36	2.5 m/s SW	Birds & insects (36), BQ inaudible (<20)
	3	10:48 am	38	2.5 m/s SW	Birds & insects (38), traffic (25), BQ inaudible (<20)
29-May-20	1	9:45 am	46	0.5 m/s ENE	Birds (45), traffic (38), BQ inaudible (<20)
	2	10:10 am	41	0.5 m/s SW	Birds (40), traffic (33), BQ inaudible (<20)
	3	10:35 am	50	1.0 m/s SW	Birds (50), traffic (25), BQ barely audible (20)
26-Aug-20	1	11:10 am	42	1.5 m/s N	Birds (42), traffic (32), BQ inaudible (<20)
	2	11:58 am	38	1.5 m/s N	Birds (38), traffic (28), BQ inaudible (<20)
	3	11:35 am	36	1.5 m/s N	Birds (35), traffic (28), BQ inaudible (<20)
26-Nov-20	1	10:30 am	48	1.5 m/s NW	Birds & insects (47), traffic (40), BQ inaudible (<20)
	2	11:15 am	48	2 m/s NW	Birds & insects (48), traffic (35), BQ inaudible (<20)
	3	10:55 am	46	2 m/s NW	Birds & insects (46), BQ occasionally audible (<20)

- **Flora and Fauna**

- The quarry footprint and extent of clearing did not alter during the reporting period;
- Maintenance of fire trails and boundary lines occurred during 2020;
- Ongoing consultation with the Rural Fire Service (RFS) continues to occur regularly;

- **Blast Management**
 - 5 blasts were conducted during the reporting period with all being within the allowable limits;

Overview of quarry operations



Blast monitoring results

			Norma Brookes		Lings Rd		Buttai Barn	
Date	Time	Blast No.	PPV mm/s	O/pressure dBL	PPV mm/s	O/pressure dBL	PPV mm/s	O/pressure dBL
21/02/2020	12:49	P_088	No trigger	No trigger	0.8	110.3	0.79	100.9
5/05/2020	13:03	P_089	1.11	107.8	No trigger	No trigger	No trigger	No trigger
18/06/2020	12:56	P_090	0.58	109.8	No trigger	No trigger	No trigger	No trigger
8/10/2020	12:32	P_091	1.51	105.1	No trigger	No trigger	No trigger	No trigger
3/12/2020	12:22	P_092	No trigger	No trigger	0.74	100	No trigger	No trigger

- **Incidents / complaints**
 - Nil

- **Rehabilitation**

- Maintenance of the rehabilitation of Bench 2 and 3 continued during 2020 despite the severe drought conditions experienced for the first part of 2020;
- Maintenance of various other rehabilitated areas also occurred during the reporting period;

Overview of quarry operations

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Overview of quarry operations

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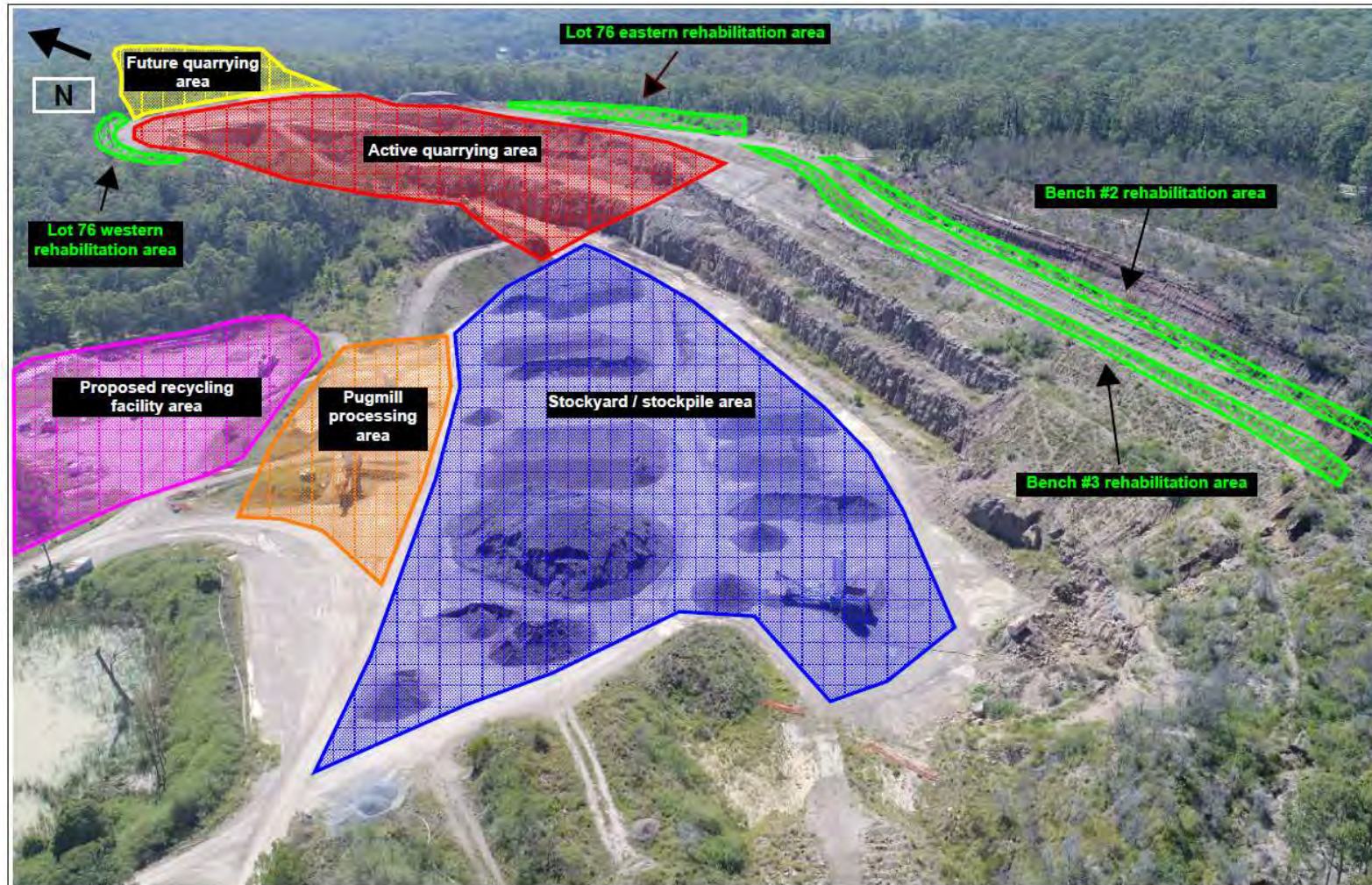


Overview of quarry operations

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Overview of quarry operations



- Further extraction and sale of quarried materials;
- Continuation of dust, noise and blast monitoring;
- Continued planting of benches and maintenance of rehabilitation work as required;
- Progression of the Resource Recovery Facility (RRF) proposal;

- Meeting occurred with Cessnock Council and Buttai CCC representatives on the 8th February 2021. Key issues raised during the meeting :
 - Council agreed to provide draft CoC to applicant (FYI only). Daracon agreed to provide to CCC;
 - CoC must directly relate to the RRF and cannot amend or refer to quarry CoC. Traffic and operating hours will be conditioned separately with consideration of cumulative impacts;

- EPL will combine quarry and RRF operations into one approval and conditions for water, air and noise;
- Truck numbers will limit outputs (whether quarry or RRF);
- Monitoring of incoming materials needed to protect from unacceptable waste;
- Quantities and time limits for receipt and storage of materials will be included in CoC;

- No external signage to be considered in CoC;
- Quarry 'Southern Haul Route' to be excluded as a haul route for the RRF in CoC;
- CoC will include requirement for a RRF CCC to coordinate with quarry CCC;

Further questions?

Buttai Quarry Community Consultation meeting and site visit – 15 November 2018



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Overview

- Issues arising from previous meetings;
- Year To Date summary of operations;
- Overview of operations:
 - Dust;
 - Noise;
 - Flora and fauna management;
 - Blast management;
 - Rehabilitation;
 - Incidents / complaints;
- Planned activities for 2019;





Issues from previous meetings

- SRL to set up Dropbox for storing quarry documents;
- RF to email consents;
- LR to upload EMP;
- Council to provide a property ownership map of land adjoining the quarry;





- Changes to Annual Report:

- ☐ Change list to just have addresses and not names;
- ☐ Drone photo to be annotated as a base map for time lapse imagery of quarry activities;

- RF to extend invitation to Ward councillors;

- Daily truck movement figures for November 2017 to be provided to CCC to double check truck numbers per day comply and reflect the numbers in the Annual Report. Summary shown overleaf;



November 2017 sales and truck movements

Sales By Location For The Period - Nov' 2017

<u>BBU</u>	<u>BUTTAI</u>	
	<u>ProductID</u>	<u>Tonnes</u>
✓03001	20mm Basecourse - Non Spec	110.43
✓03002	20mm Subbase - Non Spec	793.69
✓03009	Wetmixed 20mm Basecourse - Non Sp	5460.85
✓03010	Wetmixed 20mm Subbase - Non Spec	7541.04
✓03013	Stabilised Basecourse 2%	673.19
✓03014	Stabilised Basecourse 3%	297.66
✓03017	75mm Minus SMZ	9026.85
✓03018	SMZ	13.68
✓03081	Select Material - 2% Stabilised	746.84
✓03082	SMZ Wetmixed CBR>30 PI<15	3538.16
✓03084	Select Material - 3% Stabilised	282.60
✓04001	Side & Overlay Material	189.29
✓05001	Select Fill - Non Spec	105.66
✓29006	Processed Fill 75mm minus CBR>10	22699.01
Location Total: BUTTAI		51478.95





November 2017 sales

Date	Sales (T)	Loaded truck movements	Day
1/11/2017	2020.9	59.0	Wed
2/11/2017	2012.6	58.0	Thu
3/11/2017	2120.0	60.0	Fri
4/11/2017	1688.1	51.0	Sat
5/11/2017	0.0	0.0	Sun
6/11/2017	2034.5	59.0	Mon
7/11/2017	1970.8	58.0	Tue
8/11/2017	2017.2	60.0	Wed
9/11/2017	2038.0	59.0	Thu
10/11/2017	1980.2	58.0	Fri
11/11/2017	1316.0	40.0	Sat
12/11/2017	0.0	0.0	Sun
13/11/2017	2048.1	59.0	Mon
14/11/2017	2088.5	60.0	Tue
15/11/2017	2005.4	58.0	Wed
16/11/2017	2069.8	59.0	Thu
17/11/2017	2012.0	58.0	Fri
18/11/2017	1782.0	54.0	Sat
19/11/2017	0.0	0.0	Sun
20/11/2017	2058.0	60.0	Mon
21/11/2017	2065.1	59.0	Tue
22/11/2017	2003.6	58.0	Wed
23/11/2017	2069.5	59.0	Thu
24/11/2017	2110.8	60.0	Fri
25/11/2017	1616.3	49.0	Sat
26/11/2017	0.0	0.0	Sun
27/11/2017	2051.5	58.0	Mon
28/11/2017	2106.7	59.0	Tue
29/11/2017	2150.4	60.0	Wed
30/11/2017	2043.1	58.0	Thu
Sum	51478.95		

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2018 Year To Date summary of operations

- Quarrying continuing in Lot 76 in a north / west direction following the consented extraction area;
- Quarry operation continues to involve the manufacture and sale of various road base products;
- Progressive rehabilitation on “bench 3” and north west boundary;



- 
- A total of 11 blasts have been conducted so far in 2018;
 - Nil complaints received;
 - The Department of Industry has undertaken 2 inspections so far in 2018;
 - Rubicon (previously TREES) consultants conducted 1 environmental inspection & 2 internal environmental audits have been carried out;
 - Spectrum Acoustics have conducted 3 noise monitoring sessions;



Overview of operations

■ Dust

- Assessed against NSW EPA Criteria (4mg/L) with a number of results over the criteria at Buttai Barn as shown overleaf (containing insects and vegetation);
- Buttai Barn #2 results are fully compliant;



■ Dust monitoring results January – October 2018

Date / Site	D1 - Tetratheca	D2 - Norma	D3 - Buttai Barn	D4 - Bishop	D5- Buttai Barn 2
Dec-17 into Jan-18	1.1	3.5	1.9	0.8	0.7
Jan-18	0.8	0.8	2	0.4	0.9
Feb-18	0.5	0.9	9.7	0.8	3.8
Mar-18	1.2	1.6	13.3	5	3.2
Apr-18	0.4	0.9	1.3	1.7	1
May-18	0.7	0.9	11.3	1.8	1
Jun-18	0.2	0.7	16.6	3.3	2
Jul-18	1	1	4.2	0.8	0.9
Aug-18	1.3	1	2.5	1.5	0.8
Sep-18	0.5	0.8	3.5	1	0.7
Oct-18	0.4	0.7	15	1.9	1.4





Overview of operations

■ Noise

- Noise monitoring undertaken by Spectrum Acoustics who have conducted 3 monitoring sessions in accordance with the noise management plan;
- The results obtained were within the specified limits as shown in the tables overleaf;



■ Noise

Table 1 Buttai Quarry Noise Monitoring Results – 22 February 2018				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	12:40 pm	45	1 m/s NE	Birds & insects (45), traffic (35), BQ inaudible
2	12:15 pm	41	1 m/s N	Traffic (38), birds & insects (37), dog (30), BQ inaudible
3	11:45 am	44	1 m/s N	Traffic (42), birds & insects (40), BQ inaudible

Table 1 Buttai Quarry Noise Monitoring Results – 25 May 2018				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	2:34 pm	42	2 m/s ENE	Plane (41), BQ (32)
2	2:59 pm	49	2.5 m/s ENE	Dogs (48), wind (35), birds & insects (33), BQ (31)
3	3:22 am	54	2.5 m/s ENE	Plane (51), wind (46), BQ (30)

Table 1 Buttai Quarry Noise Monitoring Results – 23 August 2018				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	3:00 pm	38	1 m/s SE	Birds (38), BQ inaudible (<20)
2	3:20 pm	39	1.5 m/s SE	Birds (36), traffic (35), BQ (28)
3	3:40 pm	39	2.5 m/s SE	Birds (38), traffic (30), BQ inaudible (<20)





Overview of operations

■ Flora and Fauna

- ☐ Ongoing weed eradication continues on site regularly;
- ☐ Including regular weed spraying and vegetation control in selected areas;
- ☐ Boundary clearing for fire hazard reduction occurs as required;



Overview of operations

■ Blast Management

- 11 blasts have been conducted in 2018 with all 11 blasts being under allowable limits;



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Overview of operations

■ Rehabilitation

- An additional 50 trees were planted on Bench 3 in May 2018 to improve the overall vegetative cover;
- Bench planting 3 is progressing well considering the recent dry conditions;
- Maintenance of the planting along the Western extraction boundary on Lot 76 continues;

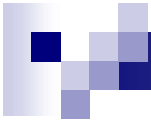


■ Rehabilitation



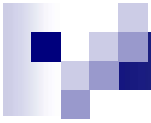
Progress shot - Buttai Quarry Bench 3 planting (October 2018)





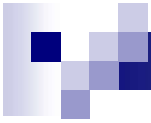
Progress shot - Buttai Quarry Bench 3 planting (October 2018)





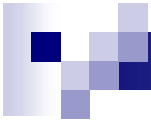
Progress shot - Buttai Quarry Bench 3 planting (October 2018)





Progress shot - Buttai Quarry Bench 2 planting (October 2018)





Progress shot - Buttai Quarry Bench 2 planting (October 2018)



Overview of operations

- Incidents / complaints
 - Nil;



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Overview of operations



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Planned activities for 2019

- Further extraction of material;
- Continuation of dust monitoring;
- Maintenance of recent rehabilitation work completed;
- Update on Recycling proposal:
 - Umwelt are still working on the relevant studies associated with the recycling facility;



- 
- We hope to have information to present to the CCC shortly with Umwelt representatives in attendance;
 - This will require an extraordinary CCC meeting to be confirmed shortly;



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ANY QUESTIONS?

THANK YOU

Community Consultation Meeting

15th March 2018



Reporting period: 1st January 2017 to 31st December 2017

Overview

- Issues arising from previous meetings;
- Summary of operations for the reporting period;
- Overview of operations:
 - Dust;
 - Noise;
 - Flora and Fauna management;
 - Blast Management;
 - Rehabilitation;
 - Incidents / Complaints;
- Planned activities for 2018;






Issues from previous meetings

- Updated electronic and hard copies of the EMP will be provided to the CCC;
- Daracon to confirm if the most current Conditions of Consent (CoC) can be uploaded to the website;
- Unresolved issues will remain live in Meeting Agendas until resolved;




- 
- Council to provide a property ownership map of land adjoining the quarry to confirm the ownership of the access roads to the quarry;
 - Daracon to confirm if the Crown has offered them a portion of Ridge Road to purchase;



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- 
- Daracon to arrange a drone photo of the quarry for the next meeting. Drone survey to include aerial, benches, contours and rehabilitation areas;
 - Signed off site inspection action list to be included in the annual report;
 - Better clarify the relevant dates on the forms in the AEMR;





Summary of operations for the reporting period


- Quarrying continuing in Lot 76;
- Quarry operations continues to involve the manufacture and sale of various road base products to the local industry and government sector;



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- 
- A total of 12 blasts were conducted during the reporting period;
 - One complaint received for dust from a blast;
 - The Department of Primary Industries undertook no inspections during the reporting period
 - 1 informal EPA site visit occurred;
 - 3 Internal Environmental Audits were completed
 - 1 Rubicon (formerly T.R.E.E.S) external Environmental Audit conducted;



Overview of operations

■ Dust

- Assessed against NSW EPA Criteria (4mg/L) with all results under the specified criteria except for “Buttai Barn” in May 2017;
- Buttai Barn #2 for May 2017 was well below 4mg/L;



■ Dust monitoring results

	D1 - Tetratheca	D2 - Norma	D3 - Buttai Barn	D4 - Bishop	D5 - Buttai Barn #2
Dec 16 into Jan 17	1.2	3.0	2.5	0.7	0.5
Jan	1.1	0.9	2.3	0.7	1.5
Feb	1.2	3.5	1.5	0.7	1.8
Mar	1.1	1.0	1.5	1.7	2.3
Apr	0.3	0.4	1.0	1.1	0.3
May	0.4	0.5	5.9	1.9	0.9
Jun	0.3	1.9	2.0	0.5	1.8
Jul	0.5	0.5	2.9	0.9	0.4
Aug	1.0	0.7	1.3	2.2	1.1
Sep	0.8	1.3	1.4	1.1	0.9
Oct	0.8	0.7	1.2	0.9	1.5
Nov	1.0	2.0	1.2	1.0	2.0
Dec	0.8	2.0	1.2	0.8	1.6
Average	0.8	1.4	2.0	1.1	1.3





Overview of operations

■ Noise

- Noise monitoring is undertaken by Spectrum Acoustics who have conducted 4 monitoring sessions during 2017. This is in accordance with the noise management plan;
- The results obtained were within the specified limits;



■ Noise

	Location	Time	dB(A)	Wind Speed and Diection	Identified Noise Sources
28-Feb-17	1	9:10 am	41	2.5 m/s S	Birds (40), excavator (32), traffic (27), BQ (<20)
	2	9:31 am	43	2.5 m/s S	Birds & insects (43), excavator (27), traffic (25), BQ (<20)
	3	9:54 am	40	2.6 m/s S	Birds & insects (40), traffic (28), BQ (<20)
12-May-17	1	2:01 pm	44	<1 m/s SE	Birds (43), traffic (34), BQ inaudible
	2	2:34 am	39	<1 m/s SSE	Traffic (37), birds (33), BQ inaudible
	3	3:02 am	46	<1 m/s SSE	Car (46), Birds (35), BQ (<27)
30-Aug-17	1	12:01 pm	36	1.5 m/s S	Birds (36), traffic (25), BQ (<20)
	2	12:22 am	33	1.5 m/s S	Birds (33), BQ inaudible
	3	12:42 am	32	1.5 m/s S	Birds (30), frogs (25), BQ (25), traffic (20)
24-Nov-17	1	3:15 pm	40	2.5 m/s SE	Traffic (38), birds (36), BQ inaudible
	2	3:45 pm	41	2.5 m/s E	Birds & insects (39), traffic (37), BQ inaudible
	3	4:10 pm	43	1.5 m/s SE	Birds & insects (42), plane (35), BQ barely audible(<25)



Overview of operations

■ Flora and Fauna

- The quarry footprint and extent of clearing changed marginally from previous operational years;
- The relevant “tree clearing protocol” was utilised which revealed that there was no impact on the local fauna;





Overview of operations

■ Blast Management

- 12 blasts were conducted during the reporting period with all being within the allowable limits;
- No specific blasting complaints were received during the reporting period;



■ Blast Management monitoring results

Date	Time	Blast #	Norma Brookes		Lings Rd		Buttai Barn	
			PPV mm/s	O/pressure dBL	PPV mm/s	O/pressure dBL	PPV mm/s	O/pressure dBL
25/01/2017	13:05	P_058	0.45	111.3	0.94	92.4	No trigger	No trigger
14/02/2017	14:52	P_059	0.6	106.3	No trigger	No trigger	0.53	101.8
21/03/2017	12:55	P_060	0.87	106.5	0.5	102.8	No trigger	No trigger
10/04/2017	2:53	P_061	0.61	103.4	0.87	107.2	No trigger	No trigger
10/05/2017	12:54	P_062	0.9	104.6	0.66	108.1	0.53	95.5
23/05/2017	9:14	P_063	0.41	104.9	0.93	106.1	0.59	98.1
22/06/2017	14.31	P_064	0.69	111	0.83	108.4	No trigger	No trigger
19/07/2017	14.03	P_065	0.52	106.1	0.97	109.7	0.87	104.7
27/07/2017	13.13	P_066	0.62	101.1	0.63	102.6	No trigger	No trigger
18/08/2017	11.28	P_067	0.88	106.4	1.09	111.5	0.83	109.3
15/09/2017	13.18	P_068	No trigger	No trigger	No trigger	No trigger	No trigger	No trigger
1/12/2017	14.26	P_069	0.57	109.2	0.65	107.3	0.66	103.9





Overview of operations

■ Rehabilitation

- Maintenance of the rehabilitation of Bench 3 continued during 2017 despite the difficult weather conditions encountered during the last half of the year;
- Shaping and seeding of a portion of the eastern extraction boundary in Lot 76 was completed;



■ Rehabilitation



Progress shot - Buttai Quarry Bench 3 planting (March 2017)



Rehabilitation continued



Progress shot - Buttai Quarry Bench 3 planting (September 2017)



Rehabilitation continued



Buttai Quarry South Eastern side of Lot 76 rehabilitation (December 2017)



Overview of operations

- Incidents / complaints

- One complaint received for dust from a blast;



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Overview of operations



Quarry sales floor (March 2017)

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Overview of operations



Drone image (February 2018)

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Overview of operations



Drone image (February 2018)

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Overview of operations



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Planned activities for 2018

- Further extraction of material;
- Continuation of dust monitoring;
- Maintenance of rehabilitation work completed;
- Buttai “Recycling Proposal” ongoing – current status explained;





ANY QUESTIONS?

THANK YOU

Buttai Quarry Community Consultation Meeting - 31 August 2017

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Overview

- Issues arising from previous meetings;
- Year To Date summary of operations;
- Overview of operations:
 - Dust;
 - Noise;
 - Flora and fauna management;
 - Blast management;
 - Rehabilitation;
 - Rubicon (formerly TREES) reports;
 - Incidents / complaints;
- Planned activities for 2018;



Issues from previous meetings

- Buttai Quarry s96 modification;
- Daracon Annual report;
- Proposed recycling facility;
- Bushfire reduction;
- Lings Rd access and rubbish;



2017 Year To Date summary of operations

- Quarrying continuing in Lot 76 in a north / west direction following the consented extraction area;
- Quarry operation continues to involve the manufacture and sale of various road base products;
- Progressive rehabilitation on “bench 3”, north west boundary and south east bund;



- A total of 10 blasts have been conducted;
- One complaint received – 18/08/17;
- The Department of Industry has undertaken 1 inspection;
- Rubicon (previously TREES) consultants conducted 1 environmental inspection & 1 internal environmental audit has been carried out;
- Spectrum Acoustics have conducted 2 noise monitoring sessions;



Overview of operations

■ Dust

- Assessed against NSW EPA Criteria (4mg/L) with all but one result under the criteria - that being Buttai Barn in June 2017 which recorded a value of 5.9mg/L (containing insects and vegetation);



■ Dust monitoring results January – August 2017

Date / Site	D1 - Tetratheca	D2 - Norma	D3 - Buttai Barn	D4 - Bishop	D5- Buttai Barn 2
Jan-17	1.2	3	2.5	0.7	0.5
Feb-17	1.1	0.9	2.3	0.7	1.5
Mar-17	1.2	3.5	1.5	0.7	1.8
Apr-17	1.1	1	1.5	1.7	2.3
May-17	0.3	0.4	1	1.1	0.3
Jun-17	0.4	0.5	5.9	1.9	0.9
Jul-17	0.3	1.9	2	0.5	1.8
Aug-17	0.5	0.5	2.9	0.9	0.4



Overview of operations

■ Noise

- Noise monitoring undertaken by Spectrum Acoustics who have conducted 2 monitoring sessions in accordance with the noise management plan;
- The results obtained were within the specified limits;



■ Noise

Table 1 Buttai Quarry Noise Monitoring Results – 28 February 2017				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	9:10 am	41	2.5 m/s S	Birds (40), excavator (32), traffic (27), BQ (<20)
2	9:31 am	43	2.5 m/s S	Birds & insects (43), excavator (27), traffic (25), BQ (<20)
3	9:54 am	40	2.6 m/s S	Birds & insects (40), traffic (28), BQ (<20)

Table 1 Buttai Quarry Noise Monitoring Results – 12 May 2017				
Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	2:01 pm	44	<1 m/s SE	Birds (43), traffic (34), BQ inaudible
2	2:34 am	39	<1 m/s SSE	Traffic (37), birds (33), BQ inaudible
3	3:02 am	46	<1 m/s SSE	Car (46), Birds (35), BQ (<27)



Overview of operations

■ Flora and Fauna

- Minor tree clearing has been completed as necessary for pit progression and in accordance with Quarry Management Plan;
- Ongoing weed eradication continues on site regularly;



Overview of operations

■ Blast Management

- 10 blasts have been conducted in 2017 with all 10 blasts being under allowable limits;



Overview of operations

■ Rehabilitation

- Bench planting 3 is progressing well;
- Planting & seeding the Western extraction boundary in Lot 76 continues;
- Shaping and seeding of finished surfaces continues along the eastern boundary;



■ Rehabilitation



Progress shot - Buttai Quarry Bench 3 planting (August 2017)





Progress shot - Buttai Quarry Bench 3 planting (August 2017)





Progress shot - Buttai Quarry Bench 3 planting (August 2017)



Overview of operations

- Incidents / complaints

- One complaint has been received in the 2017 period – Dust on 18/08/17;



Overview of operations



Planned activities for 2018

- Further extraction of material;
- Continuation of dust monitoring;
- Maintenance of recent rehabilitation work completed;
- Update on Recycling proposal:
 - Documentation was submitted in February 2017 to request Secretary's Environmental Assessment Requirements (SEARs). Copies to be supplied;



- NSW Planning and Environment responded in April supplying SEARs and associated documentation. Copies to be supplied;
- Information has been distributed to various consultants for review and they are currently pricing this work;
- Once we receive and have reviewed the pricing, the working team will be nominated;
- Draft reports will then be compiled. It is expected that this will occur late 2017 / early 2018;



- Next key consultation with CCC will then be when the draft documents have been prepared. This will allow community feedback and discussion;
- This could occur in next year's CCC meeting or if the timing doesn't suit that, then Daracon will organise a separate meeting for such;





ANY QUESTIONS?

THANK YOU

Community Consultation Meeting

11 August 2016



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Overview

- Issues arising from previous meetings
- Year To Date summary of operations
- Overview of operations
 - Dust
 - Noise
 - Flora and Fauna management
 - Blast Management
 - Rehabilitation
 - TREES Reports
 - Incidents / Complaints
- Planned activities for 2016



Issues from previous meetings

- Buttai Quarry consent
- Dissemination of information – Minutes
- Blasting notifications
- Trial of new dust monitor location
- Dumping of rubbish
- Daracon Annual report
- Report of wild dogs



2016 Year To Date summary of operations

- Quarrying continuing in Lot 76
- Quarry operations has involved the manufacture and sale of various road base products



- A total of 5 blasts have been conducted.
- No complaints have been received
- The Department of Primary Industries have undertaken 2 inspections
- TREES consultants conducted 1 environmental inspection & 1 Internal Inspection has been carried out
- Spectrum Acoustics have conducted 2 noise monitoring sessions



Overview of operations

■ Dust

- Assessed against NSW EPA Criteria (4mg/L) most results were under the criterion with the exceptions of:

- Buttai Barn in July which recorded a value of 87.8mg/L (a significant quantity of bird droppings present)



■ Dust monitoring results January – July 2016

Date / Site	Tetratheca	Norma	Buttai Barn	Bishop	Buttai Barn 2
Jan-16	0.1	0.9	1.8	1.4	0.2
Feb-16	0.5	1	1.3	2.2	0.6
Mar-16	0.2	1.4	0.5	1.4	0.6
Apr-16	0.6	1.5	0.4	0.7	0.4
May-16	0.7	3.4	3.2	1.6	0.9
Jun-16	0.5	2	2.7	0.8	1.1
Jul-16	0.4	1	87.8	1.2	1.6



Overview of operations

■ Noise

- Noise monitoring was undertaken by Spectrum Acoustics who have conducted 2 monitoring sessions in accordance with the noise management plan
- The results obtained were within the specified limits



■ Noise

Table 1
Buttai Quarry Noise Monitoring Results – 2 May 2016

Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	10:54 am	43	2.1 m/s NW	Birds (41), traffic (39), BQ inaudible
2	11:18 am	43	2.5 m/s NW	Traffic (41), birds (38), BQ inaudible
3	11:39 am	40	4.1 m/s NW	Birds (39), wind (31), traffic (25), BQ inaudible

Table 1
Buttai Quarry Noise Monitoring Results – 2 August 2016

Location	Time	dB(A) L ₁₀	Wind speed/ direction	Identified Noise Sources
1	9:17 am	48	1.1 m/s NW	Birds (46), traffic (43), BQ (24)
2	9:42 am	61	1.0 m/s NW	Birds (61), traffic (40), BQ (25)
3	10:04 am	42	1.5 m/s NW	Birds (42), BQ (29) , traffic (25)



Overview of operations

■ Flora and Fauna

- ☐ No clearing has been undertaken
- ☐ Lantana eradication has continued on the western side of Lot 75



Overview of operations

■ Blast Management

- 5 blasts have been conducted in 2016 with all 5 blasts being under allowable limits
- No complaints were received during 2016 in relation to a blast



Overview of operations

■ Rehabilitation

- Rehabilitation of Bench 3 involving the planting of tube stock was carried out in May 2016
- Planting & seeding of a portion of the western extraction boundary in Lot 76 was carried out



■ Rehabilitation



Progress shot - Buttai Quarry Bench 3 planting (April 2016)





Progress shot - Buttai Quarry Bench 3 planting (April 2016)





Progress shot - Buttai Quarry Bench 3 planting (August 2016)





Western Extraction Boundary Lot 76 seeding and planting (August 2016)



Overview of operations

- Incidents / complaints

- ☐ No complaints were received in the 2016 period



Overview of operations



Planned activities for 2016

- Further extraction of material
- Continuation of dust monitoring
- Maintenance of recent rehabilitation work completed





ANY QUESTIONS?

THANK YOU