



Ardglen Quarry

Community Consultative Committee Meeting
November 2024

Map of Area



- History of Ardglen quarry;
- Summary of current operations;
- Overview of quarry operations:
 - Air quality;
 - Noise;
 - Flora and Fauna management;
 - Incidents / Complaints
 - Rehabilitation;
 - Truck movements and sales
- Planned quarry activities for remainder of this year;
- Access to information;

- Ardglen has provided Rail ballast material since 1890;
- The quarry land was reserved for quarrying purposes in 1896;
- Ardglen Quarry rail siding Junction to the main rail line was opened In 1903;
- The Quarry underwent major upgrading between 1950 & 1964;
- Daracon purchased Ardglen in the early 2000's;
- The 2008 Ardglen Quarry Part 3 consent grants a 30 year consent to the quarry to produce 500,000 tonnes per annum;
- 2010 Modification #1 (Mod 1) updated the consent;
- 2021 proposed Modification #2 (Mod 2) was approved on the 16th of March 2021;
- We officially entered the 'Extension Area' on the 8th of July 2024;

- We have now entered the 'Extension Area', with a number of critical tasks completed and ongoing;
 - The upstream clean-water diversion was installed prior to excavation work commencing;
 - Topsoil and overburden removal has commenced;
 - Drill and blast activities have recommenced;
 - Crushing, screening and stockpiling is ongoing;
 - We continue to screen, blend and exporting previously quarried material to various projects / clients;
 - Noise compliance assessment was completed in August 2024 and accepted by the EPA on the 1st of November 2024;
- Regular inspections and maintenance of rehabilitation tree planting areas;
- Environmental monitoring continues, including PM2.5 in accordance with Mod #2;

Summary of current operations

Image of the quarry looking towards the New England Highway



Summary of current operations

Image of the 'western ridge' planting



Summary of current operations

Image of the 'Extension Area' clean water diversion



Air quality monitoring

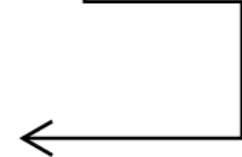
- The Dust Deposition Gauges (DDG) are assessed against the NSW EPA Annual Average Criterion (4 g/m²/month);
- All Dust Deposition Gauges (DDG's) were compliant based on the annual average results achieved for 2024 so far;
- The following tables and graphs show all the DDG results for 2024 so far;

Overview of quarry operations

DDG monitoring results for January to September 2024

	Insoluble Solids (g/m ² .month)			Insoluble Solids Annual Average (g/m ² .month)		
	EPA2	EPA3	EPA4	EPA2	EPA3	EPA4
5/1/24 to 5/2/24	1.9	0.7	0.8	0.5	0.7	0.4
5/2/24 to 4/3/24	3.2	0.4	0.7	0.7	0.7	0.4
4/3/24 to 4/4/24	1.1	0.7	0.4	0.8	0.8	0.5
4/4/24 to 3/5/24	0.7	0.4	1.5	0.8	0.8	0.5
3/5/24 to 4/6/24	0.3	0.3	0.3	0.9	0.8	0.5
4/6/24 to 5/7/24	0.2	0.3	0.3	0.8	0.7	0.6
5/7/24 to 5/8/24	0.3	0.3	0.4	0.9	0.8	0.6
5/8/24 to 4/9/24	0.3	0.2	0.4	0.8	0.8	0.6
4/9/24 to 3/10/24	1.1	1.1	1	0.9	0.8	0.6

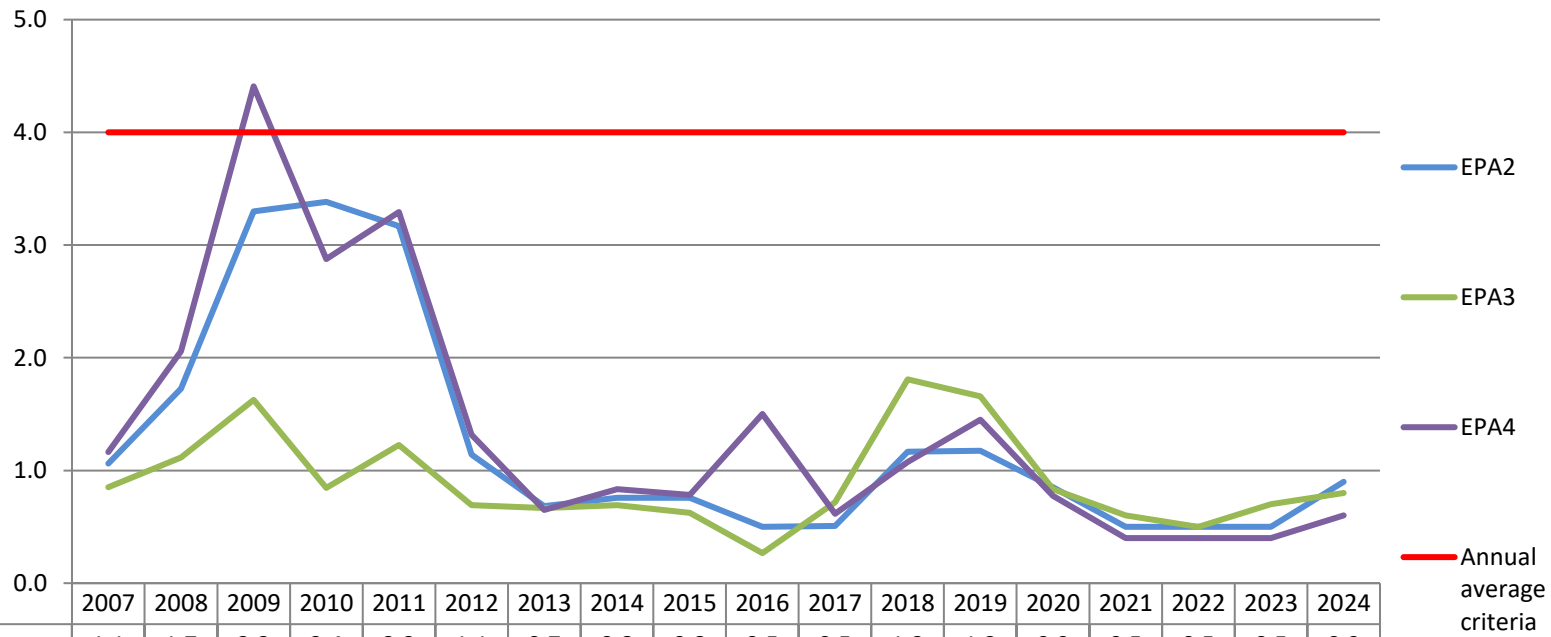
The results highlighted show the DDG annual average results up to September 2024



Overview of quarry operations

Insoluble Solids (g/m². month)

Deposition Dust Gauge rolling annual average 2007 to 2024 so far

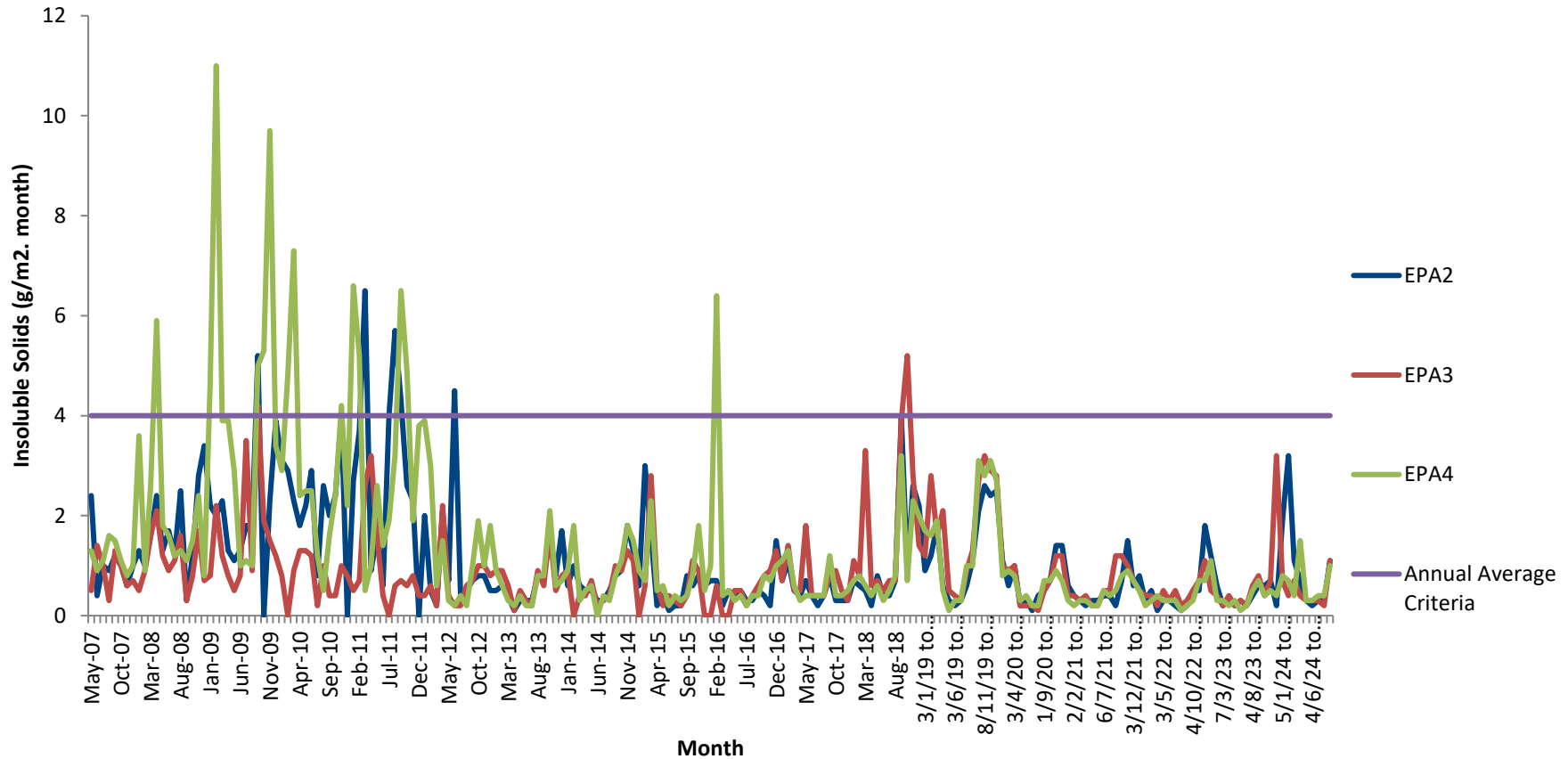


	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
EPA2	1.1	1.7	3.3	3.4	3.2	1.1	0.7	0.8	0.8	0.5	0.5	1.2	1.2	0.9	0.5	0.5	0.5	0.9
EPA3	0.9	1.1	1.6	0.8	1.2	0.7	0.7	0.7	0.6	0.3	0.7	1.8	1.7	0.8	0.6	0.5	0.7	0.8
EPA4	1.2	2.1	4.4	2.9	3.3	1.3	0.7	0.8	0.8	1.5	0.6	1.1	1.5	0.8	0.4	0.4	0.4	0.6
Annual average criteria	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

Year

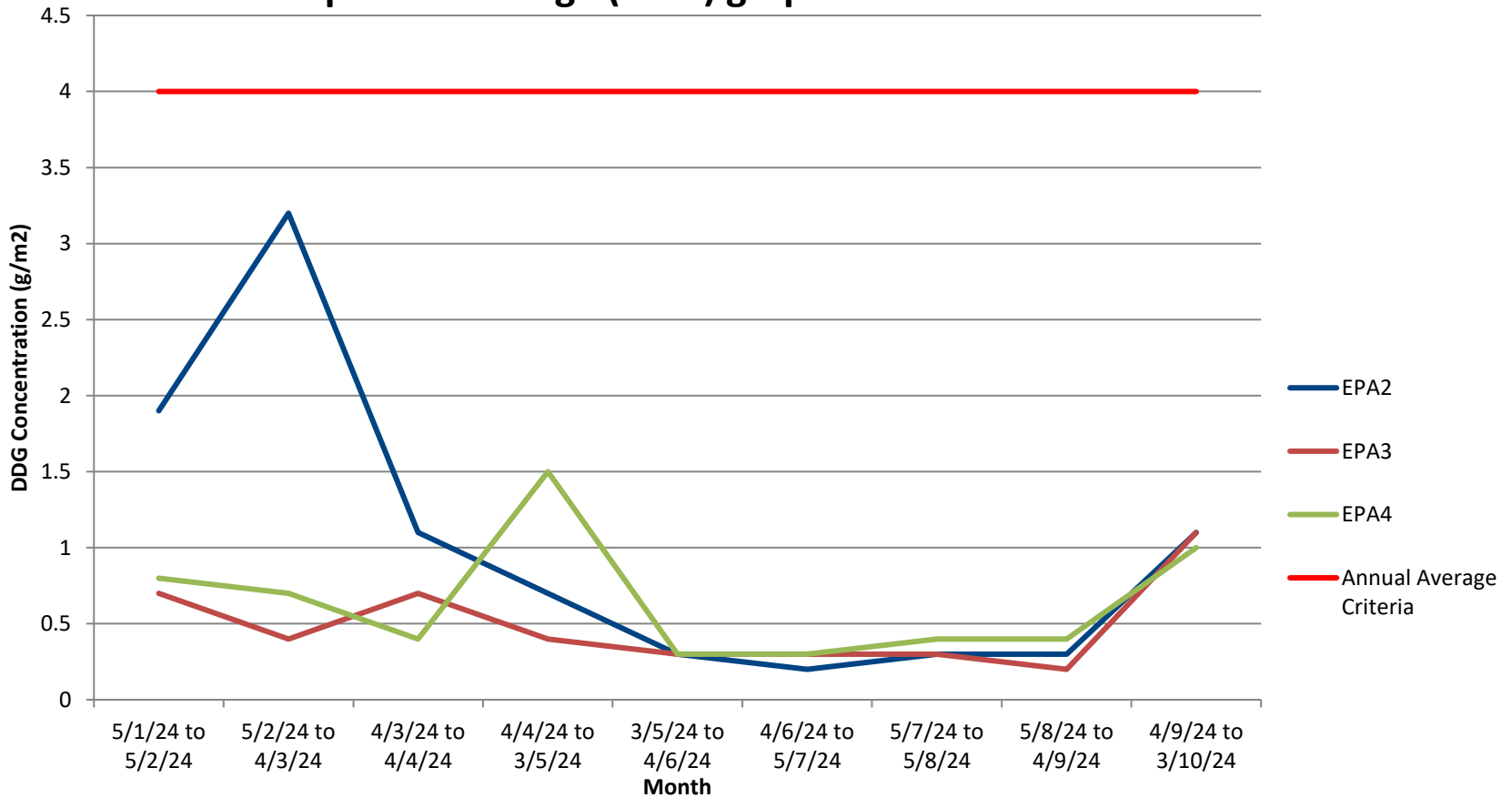
Overview of quarry operations

Deposition Dust Gauge (DDG) 2007 to 2024 so far



Overview of quarry operations

Dust Deposition Gauge (DDG) graph for 2024 so far



Overview of quarry operations

- The PM10, Total Suspended Particulate (TSP) and PM2.5 are assessed against the consent criteria as detailed in the modified approval (Mod 2);
- All air quality monitoring results for PM10, TSP and PM2.5 are compliant for all annual averages during 2024 so far;
- We recently had an isolated elevated PM2.5 result (located behind the house in Warra St), which was caused by strong NW winds and unrelated to the quarry operation (shown in the graph overleaf);

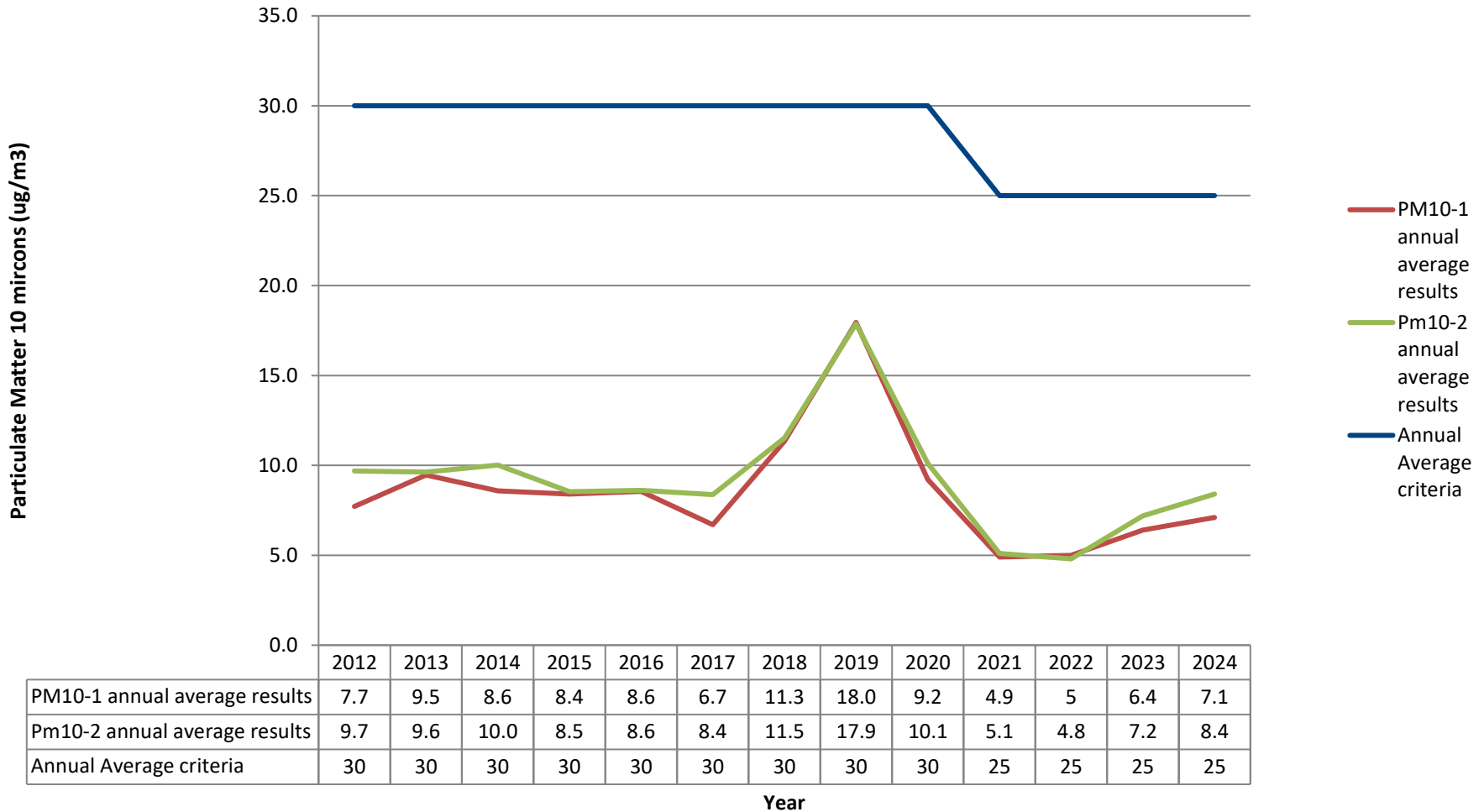
Unit	Annual Average results achieved	24 hour Criterion (Short Term)	Annual Average Criterion (Long Term)
PM10-1	7.1	50	25
PM10-2	8.4	50	25
TSP	13.1	N/A	90
PM2.5	6.1	25	8



These four results show the PM10, TSP and PM2.5 annual averages up to September 2024

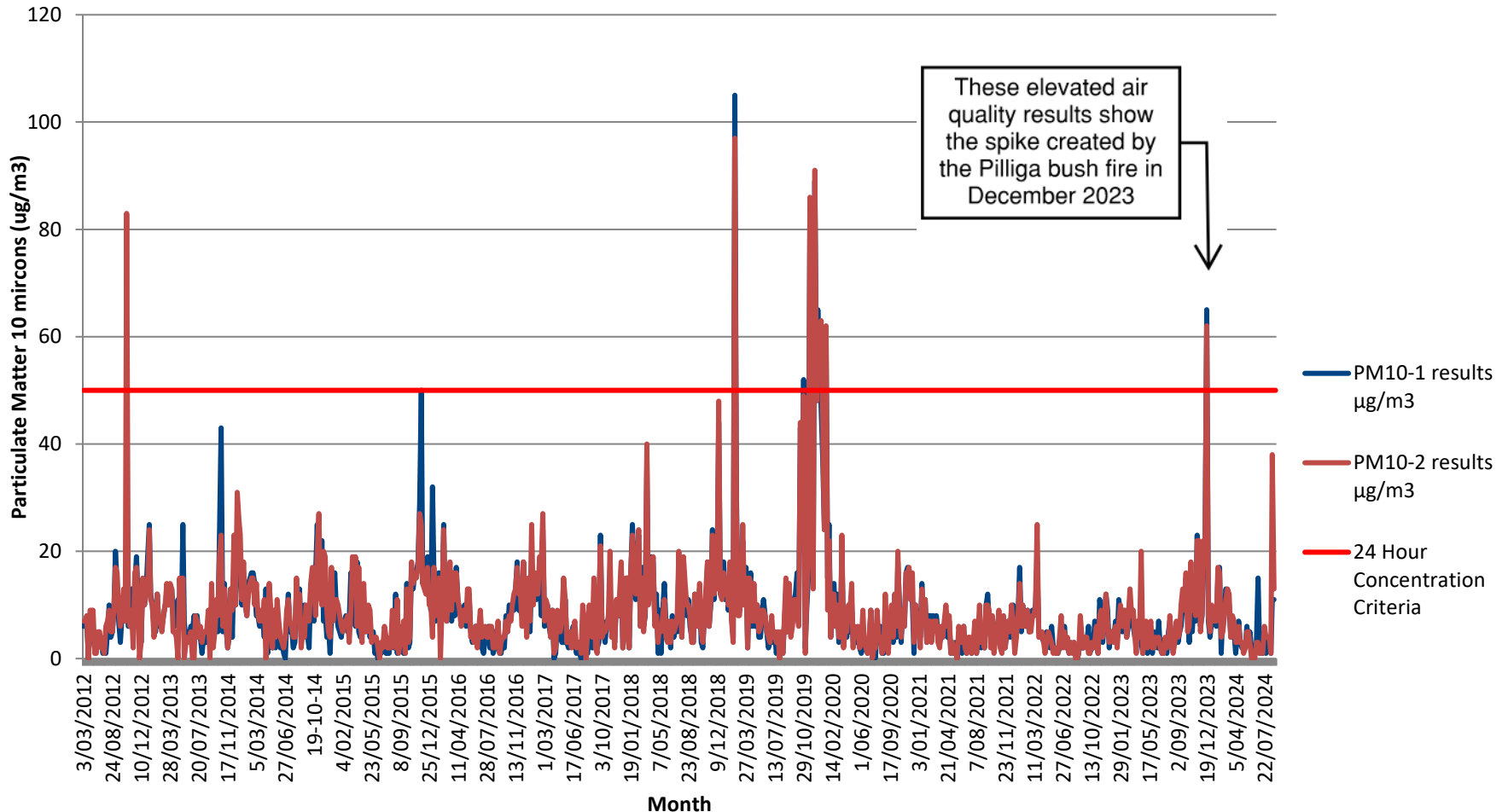
Overview of quarry operations

PM10 annual average results 2012 to 2024 so far

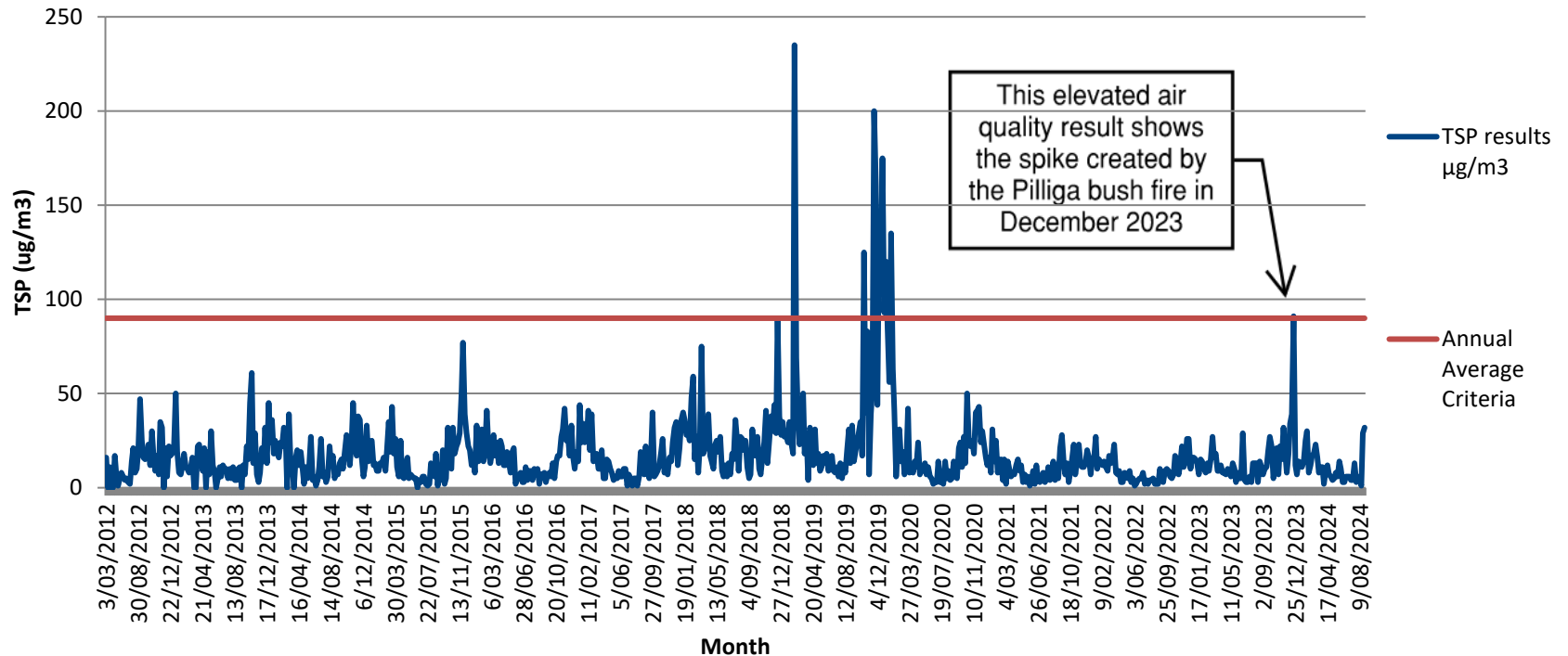


Overview of quarry operations

PM10 24 hour results 2012 to 2024 so far

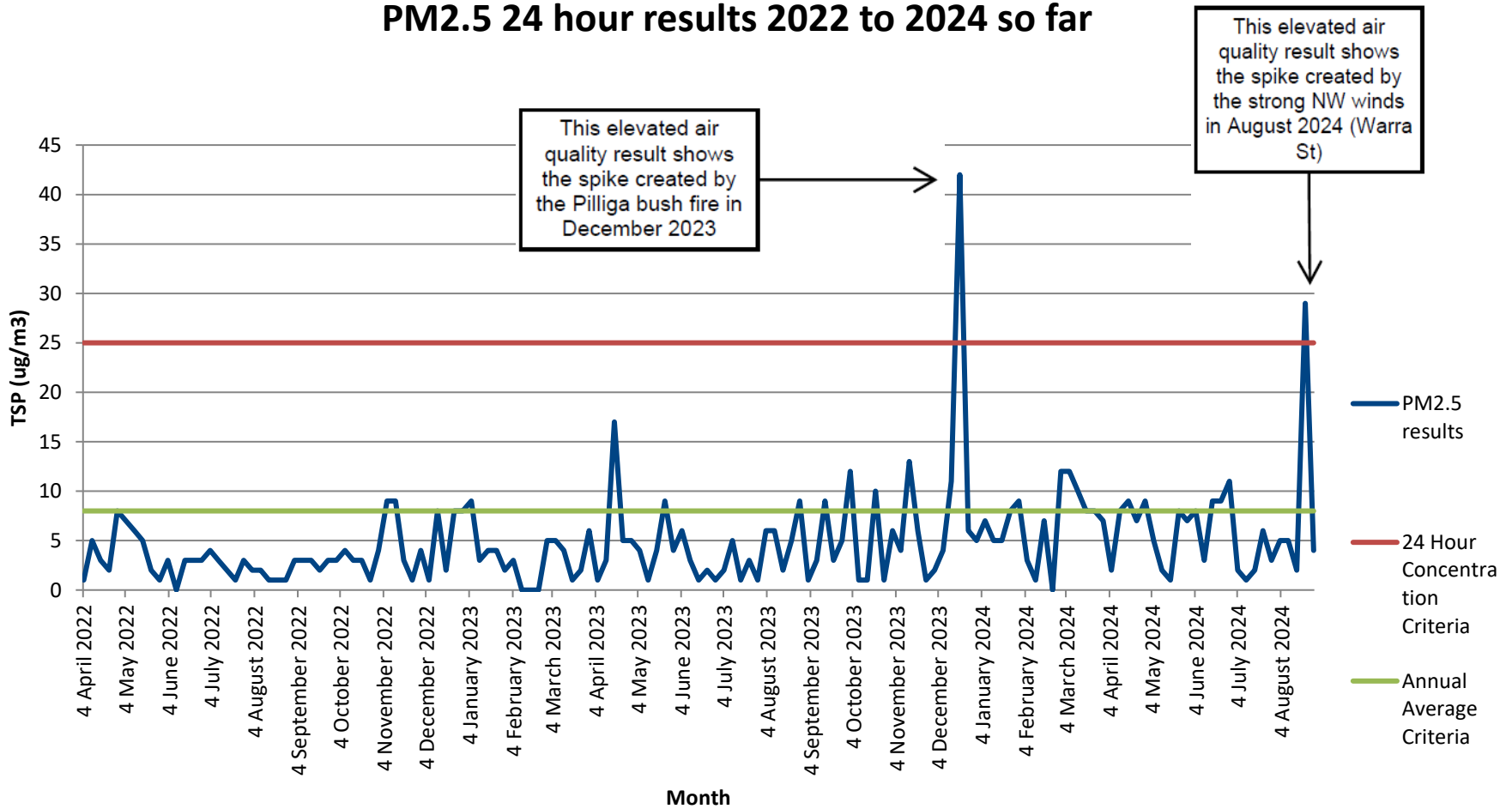


Total Suspended Particulate (TSP) 24 hour results 2012 to 2024 so far



Overview of quarry operations

PM2.5 24 hour results 2022 to 2024 so far



Noise monitoring

- Noise monitoring is undertaken monthly by Spectrum Acoustics in accordance with the approved Noise Management Plan (NMP);
- All noise monitoring results obtained this year are compliant with the Consent;
- The Noise Compliance Assessment was completed in August 2024 and subsequently accepted by the EPA on the 1st of November 2024;
- All 2024 noise results are shown in the pages overleaf;

Overview of quarry operations

Location	Time	dB(A),L _{eq}	Wind speed/ direction*	Identified Noise Sources
4. Thompson	3:53pm	49	3.1 / 304	Traffic (48), insects (37), birds (35), AQ (27)
13. McGhie	4:32pm	44	0.6 / 043	Insects (41), birds (39), traffic (34), AQ inaudible
14. Purtell	4:15pm	54	2.3 / 336	Traffic (54), birds (32), AQ occasionally audible
16. Bojba	3:33pm	58	0.9 / 219	Traffic (58), birds (38), insects (28), AQ inaudible

Location	Time	dB(A),L _{eq}	Wind speed/ direction*	Identified Noise Sources
4. Thompson	3:16pm	43	0.5 / 290	Traffic (43), insects (28), AQ (25)
13. McGhie	3:35pm	45	2.2 / 200	Traffic (47), birds (44), insects (26), AQ inaudible
14. Purtell	3:56pm	50	2.4 / 190	Traffic (50), birds (32), insects (25), AQ inaudible
16. Bojba	2:44pm	52	1.7 / 200	Traffic (52), insects (31), AQ inaudible

Overview of quarry operations

Location	Time	dB(A),L _{eq}	Wind speed/ direction*	Identified Noise Sources
4. Thompson	11:16am	48	5.5 / 120	Traffic (48), birds (34), AQ inaudible
13. McGhie	11:36am	35	5.0 / 125	Traffic (34), birds (29), AQ inaudible
14. Purtell	10:40am	65	5.0 / 120	Traffic (65), train (52), birds (40), AQ (32) ¹
16. Bojba	10:18am	61	5.0 / 115	Trains (59), traffic (57), birds (36), AQ inaudible

1. AQ noise from trucks entering front gate.

Location	Time	dB(A),L _{eq}	Wind speed/ direction*	Identified Noise Sources
4. Thompson	2:01pm	48	0.8 / 310	Traffic (48), birds (33), AQ (24)
13. McGhie	2:32pm	44	1.5 / 285	Traffic (43), dogs (35), insects (27), AQ barely audible
14. Purtell	2:52pm	45	2.0 / 300	Train (43), traffic (38), birds (37), AQ (29)
16. Bojba	1:43pm	58	0.8 / 300	Traffic (58), birds (24), AQ inaudible

Overview of quarry operations

Location	Time	dB(A),L _{eq}	Wind speed/ direction*	Identified Noise Sources
4. Thompson	12:01pm	45	3.0 / 330	Traffic (45), birds (25), AQ inaudible
13. McGhie	12:42pm	39	3.0 / 280	Dog (38), traffic (32), birds (23), AQ inaudible
14. Purtell	12:23pm	42	2.0 / 345	Traffic (41), birds (33), AQ inaudible
16. Bojba	11:40am	53	3.5 / 300	Traffic (53), birds (28), AQ inaudible

Location	Time	dB(A),L _{eq}	Wind speed/ direction*	Identified Noise Sources
4. Thompson	1:05pm	57	4.0 / 350	Train (56), traffic (51), birds (34), AQ inaudible
13. McGhie	1:56pm	49	4.5 / 340	Traffic (49), dog (37), birds (25), AQ inaudible
14. Purtell	1:36pm	43	4.0 / 340	Traffic (42), train (34), birds (26), AQ inaudible
16. Bojba	12:47pm	55	4.5 / 350	Traffic (55), birds (27), AQ inaudible

Overview of quarry operations

Table 2 Ardglan Quarry Noise Monitoring Results – 25 th July 2024 (Day)				
Location	Time	dB(A),L _{eq}	Wind speed/ direction*	Identified Noise Sources
4. Thompson	12:37pm	49	8.0 / NW	Traffic (48), train (41), birds (38), AQ inaudible
13. McGhie	1:09pm	46	8.5 / NW	Traffic (46), birds (31), AQ inaudible
14. Purtell	1:29pm	38	8.0 / NW	Birds (38), AQ inaudible
16. Bojba	12:17pm	54	8.5 / NW	Traffic (54), birds (33), AQ inaudible

Table 2 Ardglan Quarry Noise Monitoring Results – 19 th August 2024 (Day)				
Location	Time	dB(A),L _{eq}	Wind speed (m/s) / direction*	Identified Noise Sources
4. Thompson	12:23pm	55	1.5 / 083	Aeroplanes (55), traffic (44), birds (32), AQ occasionally audible
13. McGhie	1:17pm	43	2.4 / 152	Train (42), traffic (35), birds (30), dogs (27), AQ inaudible
14. Purtell	12:58pm	56	3.0 / 144	Traffic (54), train (51), birds (30), AQ inaudible
16. Bojba	12:05pm	59	1.1 / 152	Traffic (59), birds (36), AQ inaudible

Overview of quarry operations

Location	Time	dB(A), L_{eq}	Wind speed (m/s) / direction*	Identified Noise Sources
4. Thompson	11:08am	56	0.8 / 348	Train (56), traffic (44), birds (40), AQ inaudible
13. McGhie	12:01pm	38	1.4 / 227	Birds (37), traffic (27), aeroplane (26), AQ occasionally audible
14. Purtell	11:42am	54	2.7 / 072	Traffic (54), birds (39), train (37), aeroplane (26), AQ (25)
16. Bojba	10:50am	60	2.1 / 026	Traffic (60), birds (26), AQ inaudible

Blast monitoring

- Blast monitoring is undertaken for each blast in accordance with the approved Blast Management Plan (BMP);
- All blast monitoring results obtained this year are compliant with the Consent;
- All recent blast results are shown in the table overleaf;

Overview of quarry operations

Ardglen quarry EPL #1115 - Blast Monitoring Results

Date	Time	Blast No.	Monitoring Point 2 (Del)		Monitoring Point 7 (Warra)		Ngairre rear yard		Shane and Paula rear yard	
			PPV mm/s	O/pressure dBL	PPV mm/s	O/pressure dBL	PPV mm/s	O/pressure dBL	PPV mm/s	O/pressure dBL
23/05/2024	14:28	ARD_06	1.73	114.4	1.71	103.1	3.36	108.9	4.6	108.5
20/06/2024	12:13	ARD_07	1	114.4	1.54	101.7	2.45	101.4	1.82	103.1
2/08/2024	12:19	ARD_08	Nil Trigger	Nil Trigger	1.57	109.7	2.18	110.5	2.7	109.5
17/09/2024	12:48	ARD_09	0.92	112.3	3.72	108.5	N/A	N/A	3.5	108.7
5/11/2024	13:32	ARD_10	Nil Trigger	Nil Trigger	1.84	110.7	2.16	110.4	1.80	107.8

Flora and Fauna

- The extent of vegetation clearing did not alter during the reporting period;
- Topsoil and overburden are currently being removed from the 'Extension Area';
- Regular inspections occur to ensure the site is managed appropriately from a bush fire perspective;
- Ongoing rehabilitation planting / maintenance on site;
- Ongoing feral animal control on site;

Incidents and complaints

- During 2024 so far the quarry recorded five incidents (as detailed in the consent);
- During 2024 so far the quarry recorded six complaints/queries (as detailed in the consent);
- The slides overleaf summarise the incidents and complaints received during 2024 so far;

Overview of quarry operations

Ardglen quarry incidents register

Date	Time	Details	Action	Response
Feb-24	N/A	On the 19th December 2023 the site exceeded the air quality monitoring criteria at Ardglen quarry for the PM10, TSP and PM2.5 as shown in the attached RCA Australia test reports ('Ardglen HVAS December 2023' and 'Ardglen PM2_5 December 2023').	Daracon investigated the matter and found there was a substantial bush fire that occurred on that day at Pilliga which caused the exceedance	DPHI accepted the fact that the air quality exceedance was not caused by the operation of the quarry, but a 'regional poor air quality event' caused by the Pilliga fires
29/02/2024	10pm	On the 29th February 2024, the TSP, PM-10 and PM2.5 air quality monitoring units ran for 21.73 hours which is almost 2 hours less than required. There was significant thunderstorm activity on that day and, after enquiring with Essential Energy, it became apparent there was brief power outage around 10pm on the 29th February 2024 which caused all of the monitors to cease working approximately 2 hours short of their programmed duration	Daracon investigated the matter and found there was a power outage caused by an electrical storm at 10pm on the day, which caused the monitors to run for less than 24 hours	DPHI accepted this finding
24/03/2024	4am	On the 24th March 2024, the TSP, PM-10 and PM2.5 air quality monitoring units ran for approximately 20 hours which is 3 hours less than the minimum required in accordance with the EPA test method (24 hours plus or minus one hour). Essential Energy have confirmed the electrical power supply to the site was not available between 10pm on the 23th March and 4am on the 24th March 2024	Daracon investigated the matter and found there was an Essential Energy power outage that finished at 4am on the day, which caused the monitors to run for less than 24 hours	DPHI accepted this finding
22/06/2024	0:00	The Ardglen quarry High Volume Air Sampler (PM10-01) operated for 80 hours starting on the 22nd June 2024, which is outside the range of the EPA test method (24 plus or minus one hour). This error was caused by a malfunction with the PM10-01 units timer, which was immediately rectified once we became aware of the situation and it did not impact the subsequent monitoring events.	The PM10-01 result for the 80 hour period was 3.0 µg/m3, which is very low and indicates there were no air quality issues during the reporting period. This is also reinforced by the other PM10-02 and TSP results for the period being very low. No further action required	DPHI accepted this finding
21/08/2024	0:00	On the 21st of August 2024, the air quality monitoring criteria at Ardglen quarry was exceeded for PM2.5 as shown in the RCA Australia test report ('9733A-337 Ardglen PM2_5 August 2024').	The annual average for the PM2.5 is below the 8 micrograms/cubic metres criteria, the wind rose shows predominantly strong NW winds on that day and the NSW Government PM10 monitor at Aberdeen also showed elevated results for that day. All of this demonstrates the elevated result was not associated with the quarry operation	DPHI accepted this finding

Overview of quarry operations

Ardglen quarry complaints register

Date	Time	Details	Response
Jan-24	N/A	Local ground water wells and Doughboy Hollow are drying up	Daracon answered the queries by providing additional information regarding site water
23/05/2024	3:02pm	Blasting query	We answered all of the queries raised and also their subsequent similar enquiry in July 2024
2/08/2024	10:30am	Truck speeding through the Ardglen township, without registration details available	Despite the fact we did not have the registration details for the truck seen speeding through the Ardglen township, we immediately contacted our transport subcontractor's supervisor (and owner) who responded promptly by undertaking a toolbox talk with all his drivers to remind them of the Ardglen quarry truck drivers Code of Conduct and the strict requirement to adhere to 40kph within the township of Ardglen. We also suggested that it is very helpful to obtain the registration details for any vehicles seen breaching the site access rules in the future please
14/08/2024	11:57am	Blasting query	The location for 'blast monitor 7' was interpreted, agreed and has resolved this matter.
During the latter part of 2024	Various	Various feedback received from a few community members regarding the condition of Main St Ardglen	We've responded to all enquiries regarding the condition of Main St Ardglen by explaining we continue to liaise with LPSC to resolve this issue ASAP. The current action is with LPSC and we await their instruction.
5/11/2024	13:33	Blasting query	We answered the query raised

Rehabilitation

- Significant rehabilitation work has occurred during previous years as detailed in the revised Landscape Management Plan (LMP);
- The Conservation Agreement (CA) which permanently secures the Biodiversity Offset Areas (BOAs) was formally ratified by the Biodiversity Conservation Trust (BCT) and commenced on the 7th of May 2024;
- The Doughboy Hollow Rehabilitation Strategy recently commenced and will be ongoing for many years;
- As part of the planting that occurred in 2019, 2020 and 2021, Daracon have planted almost 1000 small tree and shrub species including regular inspection and watering (as required);
- Ongoing formal inspections of the rehabilitated areas occur regularly which are incorporated into the AEMR;

Overview of quarry operations

Image of offset planting progress (lower offset area)



Overview of quarry operations

Image of the Doughboy Hollow rehabilitation progress



Truck movements and sales

- The export of material from the quarry by truck recommenced during the second half of 2023 and has continued into 2024;
- Between January and October 2024, we exported 69,139 tonnes of material from the quarry as shown in the following table:

Month	Sales (T)
Jan-24	4887
Feb-24	5296
Mar-24	9976
Apr-24	5312
May-24	1636
Jun-24	1356
Jul-24	7107
Aug-24	6079
Sep-24	18131
Oct-24	9359
TOTAL	69,139

- During 2024, the export of material from the quarry by truck continued to be compliant with the various 'laden truck movement' limits, total tonnages and other specific requirements of the Consent as will be detailed in the AEMR;
- The export of material from the quarry by truck will continue for the foreseeable future and likely increase as the quarry expands further into the 'Extension Area';
- The export of material from the quarry by truck will continue to be managed to ensure the total laden truck movements do not exceed 55 per day whilst also monitoring the times and tonnages to ensure compliance with the consent;
- A few large projects will commence shortly which is likely to increase truck movements from the quarry (up to 55 laden per day);

- We continue to liaise with representatives from Liverpool Plains Shire Council (LPSC) regarding the installation of 'inter-pavement drainage' on Main St Ardglen to rectify the section of road that is currently failing due to the ingress of water into the pavement material;
- As shown in the next few slides, we're currently liaising with LPSC regarding a solution to the ingress of water into the pavement ;
- LPSC are currently reviewing and assessing this proposed solution, and we hope to resolve this matter shortly;

Overview of quarry operations



Overview of quarry operations



Proposed works for the remainder of 2024

- Overburden removal, blasting, crushing and screening of material sourced from the 'Extension Area';
- Continued environmental monitoring (Air quality, Noise, Blasting and Water) and regular inspections;
- Continued Community engagement;
- Inspection and maintenance of planting in accordance with the revised LMP;
- Ongoing processing and export of previously quarried material to various projects / clients;
- Various construction activities continuing on site;

- The consent modification (Mod 2) was approved on the 16th March 2021. Daracon continue to work on several relevant actions associated with the revised consent including:
- A copy of Mod 2 is located on the Daracon website here:
<https://daracon.com.au/services/quarries>
- All approved Management Plans are displayed on the Daracon Website detailed above;
- If you'd like a hard copy of any Management Plans, please let us know and we'll print them out and deliver to you;

- A groundwater monitoring network was installed during 2021 with monitoring ongoing;
- An update Site Water Management Plan has been developed using the groundwater data collected and it's currently sitting on the DPHI Major Projects Portal awaiting further input from ARTC and DCCEEW (Water Division);
- As usual, we'll keep the CCC updated with our progress with all quarry related activities;
- Please see an image overleaf showing the operational areas and ongoing blasting locations;



SURVEY: NOVEMBER 1ST 2024

VIEW ON MOBILE SETTINGS SHARE



1	Works on-site to re-commence quarrying and sales from site	Date	5/11/2024
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	Surveyed/Drawn	JC



Project	ARDGLEN QUARRY - UPCOMING WORK	TITLE	ARDGLEN QUARRY - UPCOMING WORKS
Address	WARRAH ST ARDGLLEN		
Page Number	1	Drawing Number	BAR-0001

Relevant information relating to the operation of Ardglen quarry

- In accordance with the Mod 2 Consent, there is a significant amount of information available on the Ardglen quarry website here:
<https://daracon.com.au/services/quarries>
- This includes all the approved management plans, current environmental monitoring data and all recent reports such as the Annual Environmental Management Reports (AEMR's);
- If you'd like hard copies of any documents or monitoring results, please let us know and we'll print them out and deliver to you;

Questions?