

Monthly Environmental Monitoring Report

Yancoal Mount Thorley Warkworth

August 2026

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Revision History

Version No.	Version Details	Date
1.0	**Final**	**28/10/2026**

1.0 INTRODUCTION

This report has been compiled to provide a monthly summary of environmental monitoring results for Mount Thorley Warkworth (MTW). This report includes all monitoring data collected for the period 1 August to 31 August 2026.

2.0 AIR QUALITY

2.1 Meteorological Monitoring

Meteorological data is collected at MTW's 'Charlton Ridge' meteorological station (refer to **Figure 3**).

2.1.1 Rainfall

Rainfall for the reporting period is summarised in **Table 1**. The year-to-date monthly rainfall totals, 2026 monthly rainfall totals and historical average monthly rainfall trend are shown in **Figure 1**.

Table 1: Monthly Rainfall MTW

2026	Monthly Rainfall (mm)	Cumulative Rainfall (mm)
August	29.2	278.6

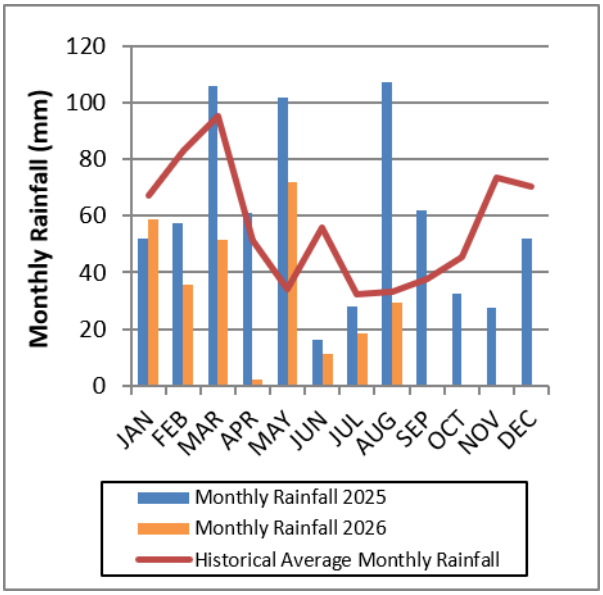


Figure 1: Rainfall Trend YTD

Note: The historical average monthly rainfall is calculated from 2007 to 2025 monthly totals.

2.1.2 Wind Speed and Direction

Winds from the Northwest and South were dominant during the reporting period as shown in **Figure 2.**

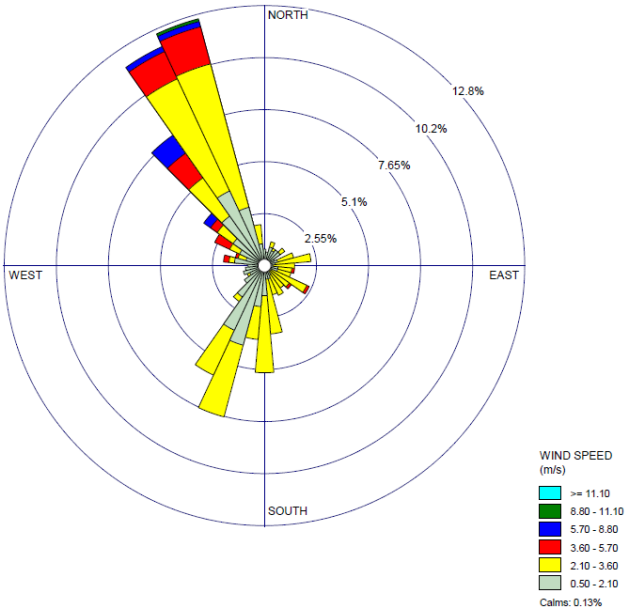


Figure 2: Charlton Ridge Wind Rose – August 2026

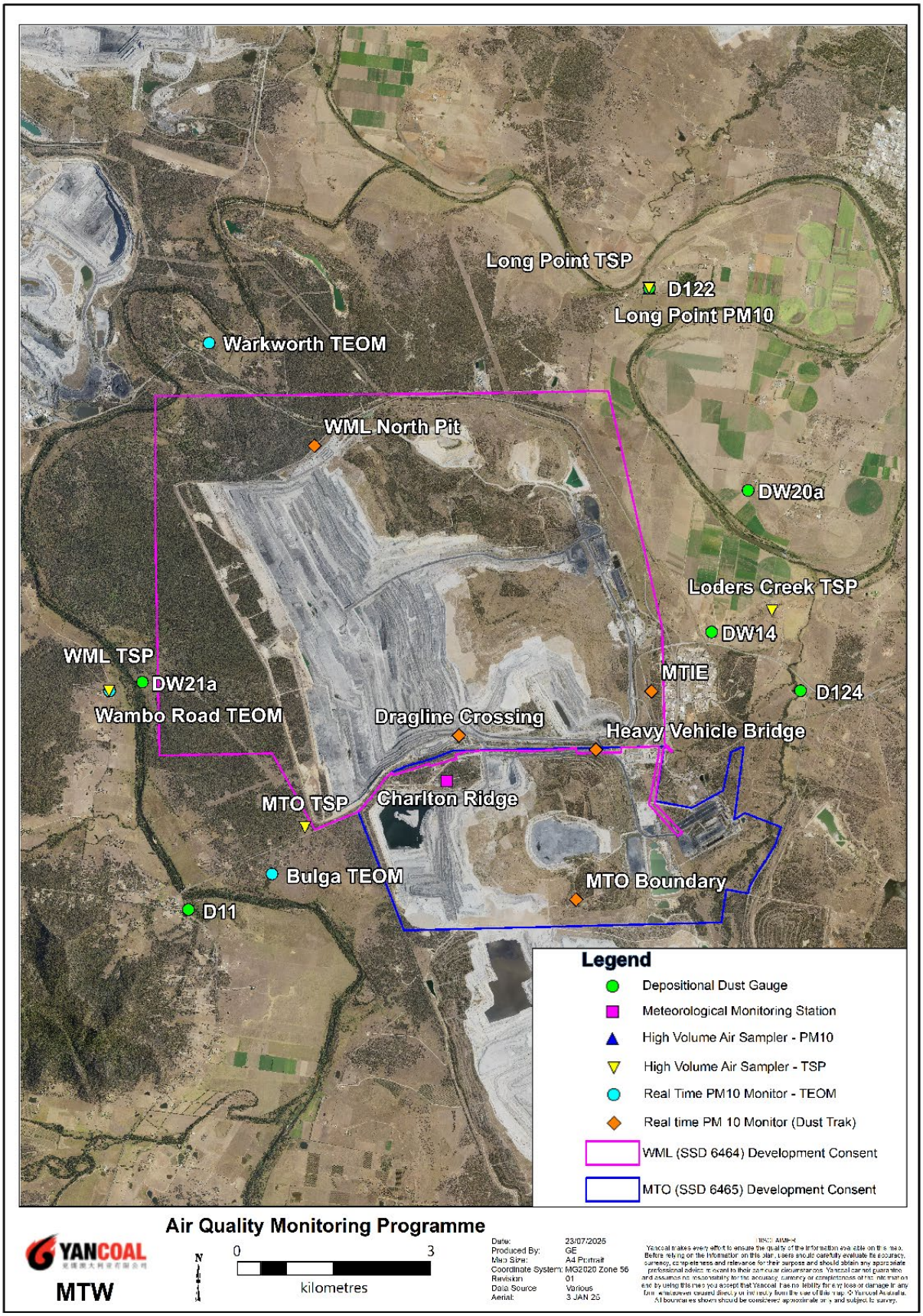


Figure 3: Air Quality Monitoring Locations

2.2 Depositional Dust

To monitor air quality, MTW operates and maintains a network of six depositional dust gauges, situated on private and mine owned land surrounding MTW.

Figure 4 displays insoluble solids results from depositional dust gauges during the reporting period compared against the year-to-date average and the annual impact assessment criteria.

An annual assessment of MTW's compliance with the Long-Term Impact Assessment Criteria will be provided in the 2026 Annual Review Report.

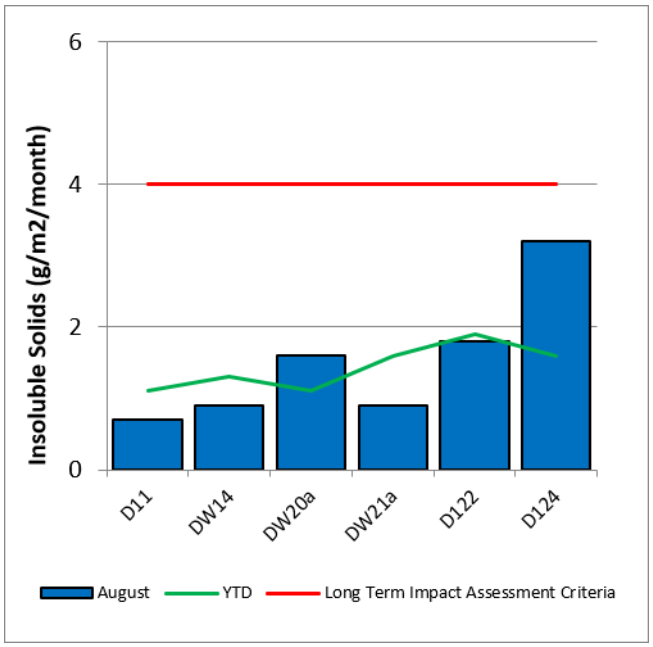


Figure 4: Depositional Dust – August 2026

2.3 Suspended Particulates

Suspended particulates are measured by a network of High Volume Air Samplers (HVAS) measuring Total Suspended Particulates (TSP) and Particulate Matter <10µm (PM_{10}). The location of these monitors can be found in **Figure 3**. Each HVAS was run for 24 hours on a six-day cycle in accordance with EPA requirements.

2.3.1 HVAS PM_{10} Results

Figure 5 shows the individual PM_{10} results at each monitoring station against the short-term impact assessment criteria of 50µg/m³.

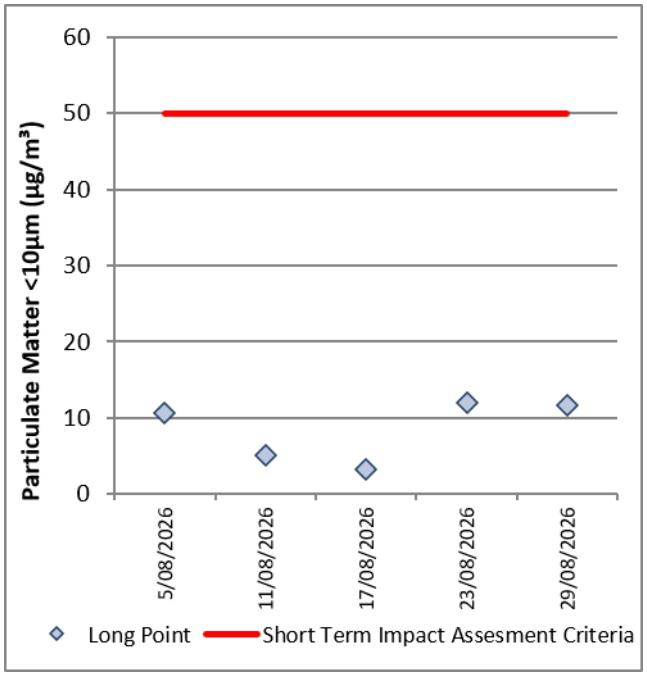


Figure 5: Individual PM_{10} Results – August 2026

Figure 6 shows the annual average PM_{10} result against the long-term impact assessment criteria.

An assessment of MTW's compliance with the Long-Term Impact Assessment Criteria will be provided in the 2026 Annual Review Report.

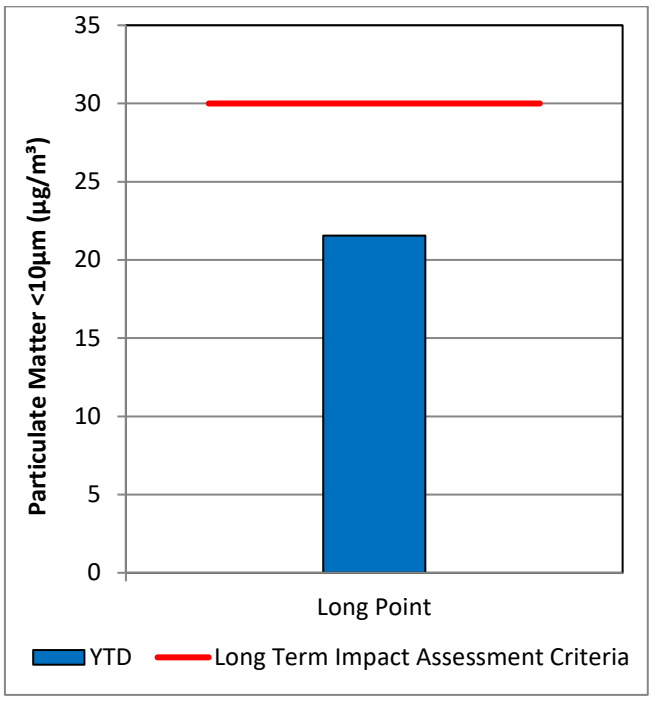


Figure 6: Annual Average PM_{10} – August 2026

2.3.2 TSP Results

Figure 7 shows the annual average TSP results compared against the long-term impact assessment criteria of 90µg/m³.

An assessment of MTW's compliance with the Long-Term Impact Assessment Criteria will be provided in the 2026 Annual Review Report.

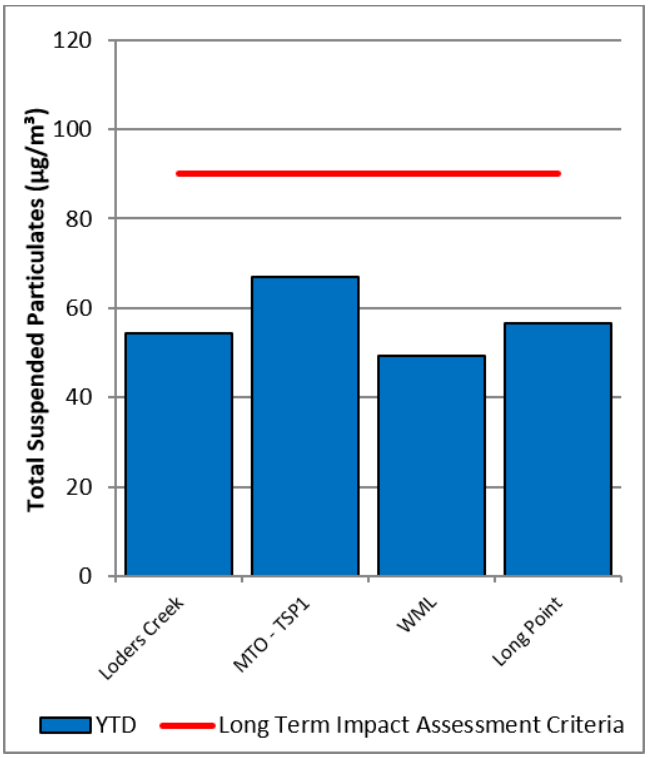


Figure 7: Annual Average Total Suspended Particulates – August 2026

2.3.3 Real Time PM_{10} Results

MTW maintains a network of real time PM_{10} monitors. The real time air quality monitoring stations continuously log information and transmit data to a central database, generating internal alerts when particulate matter levels exceed internal trigger limits.

Results for real time dust sampling are shown in **Figure 8**, including the daily 24-hour average PM_{10} result and the annual PM_{10} average.

2.3.4 Real Time Alarms for Air Quality

During August, the real time monitoring system generated 97 automated air quality related alerts, including 9 alerts for adverse meteorological conditions and 88 alerts for elevated PM_{10} levels.

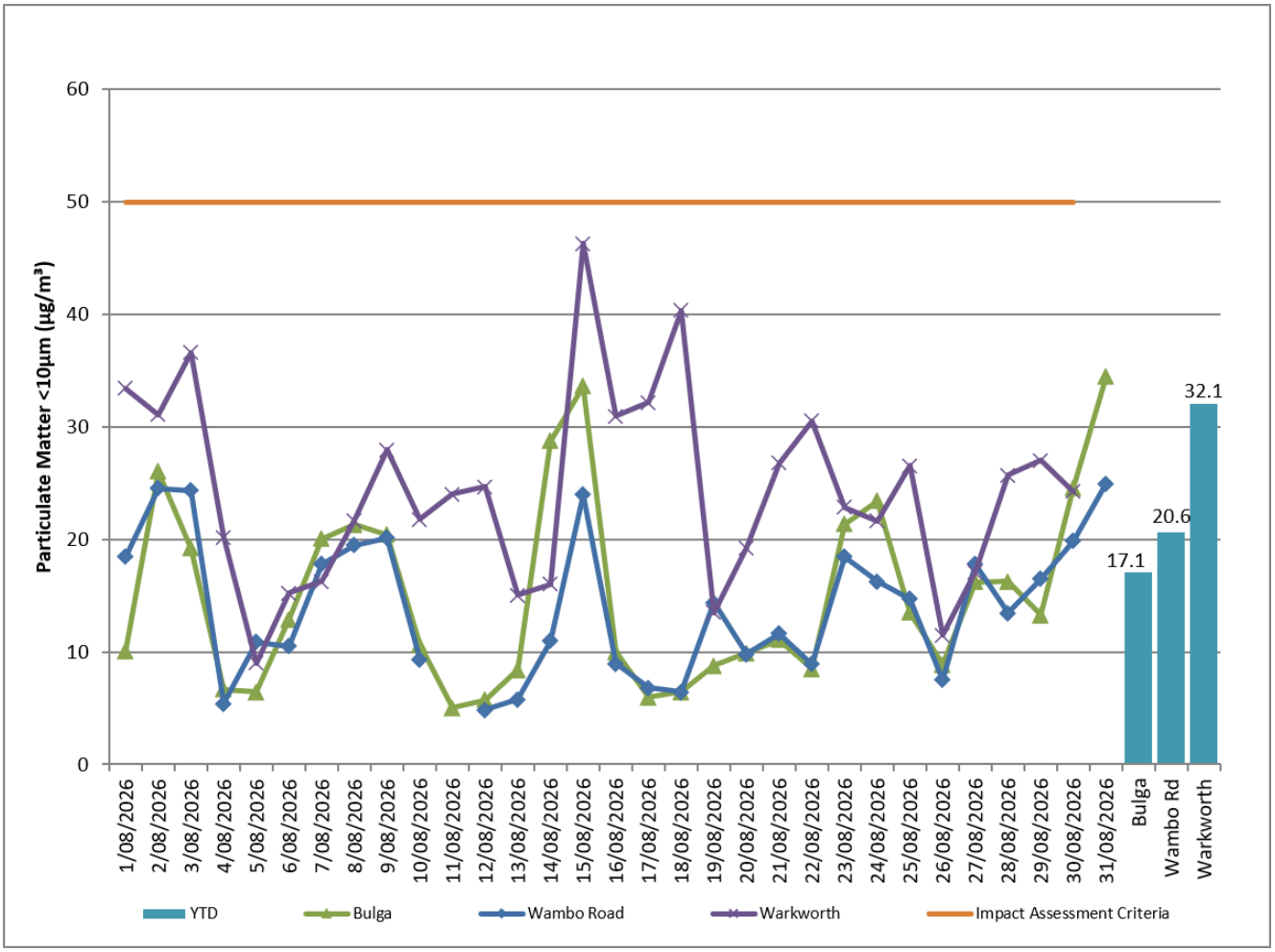


Figure 8: Real Time PM_{10} daily 24hr average (line graphs) and YTD annual average (column graphs) – August 2026

3.0 WATER QUALITY

MTW maintains a network of surface water and groundwater monitoring sites.

3.1 Surface Water

Monitoring is conducted at mine site dams and surrounding natural watercourses.

Surface water courses are sampled on a monthly or quarterly sampling regime. Water quality is evaluated through the parameters of pH, Electrical Conductivity (EC) and Total Suspended Solids (TSS). The Hunter River and the Wollombi Brook are sampled both upstream and downstream of mining operations, to record background water quality and to monitor the potential impact of mining on the river system. Other Hunter River tributaries are also monitored.

Results of monitoring are reported quarterly, next available in the September 2026 report.

3.2 HRSTS Discharge

MTW participates in the Hunter River Salinity Trading Scheme (HRSTS), allowing discharge from licensed discharge points located at Dam 1N, Dam 6S and Dam 9S. Discharges can only take place subject to HRSTS regulations. MTW did not undertake HRSTS discharges in August.

3.3 Groundwater Monitoring

Groundwater monitoring is undertaken on a quarterly basis in accordance with the MTW Groundwater Monitoring Programme.

Groundwater results are reported quarterly, next available in the September 2026 report.

4.0 BLAST MONITORING

MTW have a network of six blast monitoring units. These are located at nearby privately owned residences and function as regulatory compliance monitors. The location of these monitors can be found in **Figure 15.**

4.1 Blast Monitoring Results

During August 2026, 20 blasts were initiated at MTW. **Figure 9** to **Figure 14** show the blast monitoring results for the reporting period against the impact assessment criteria. The criteria are summarised in **Table 2**.

Table 2: Blasting Limits

Airblast Overpressure (dB(L))	**Comments**
115	5% of the total number of blasts in a 12 month period at WML or MTO
120	0%
Ground Vibration (mm/s)	**Comments**
5	5% of the total number of blasts in a 12 month period at WML or MTO
10	0%

During the reporting period no blasts exceeded the 115dB(L) threshold for Airblast overpressure or 5mm/s criteria for ground vibration.

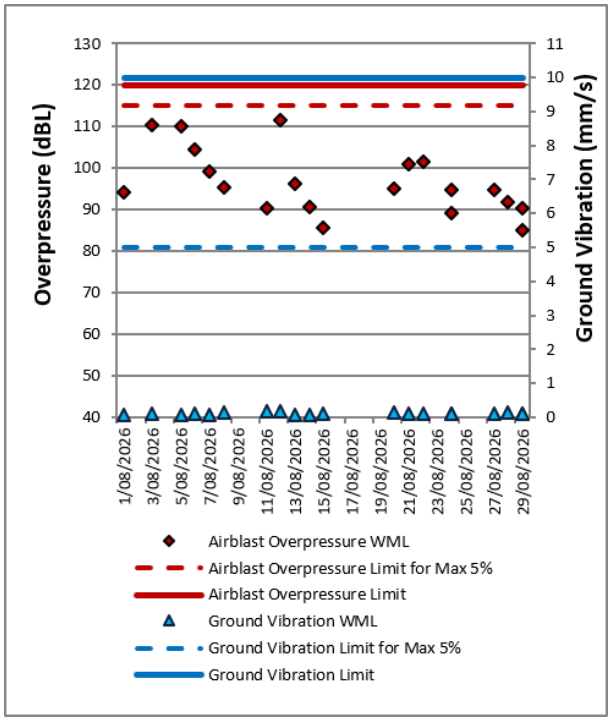


Figure 9: Abbey Green Blast Monitoring Results – August 2026

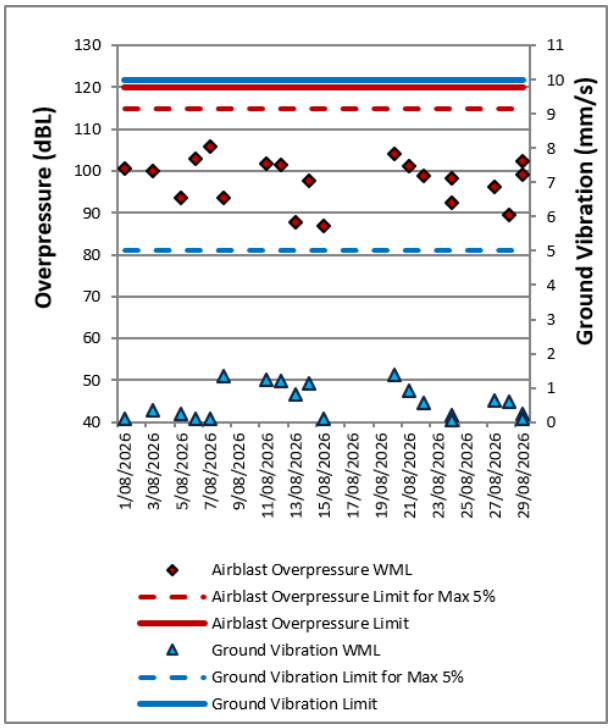


Figure 10: Bulga Village Blast Monitoring Results – August 2026

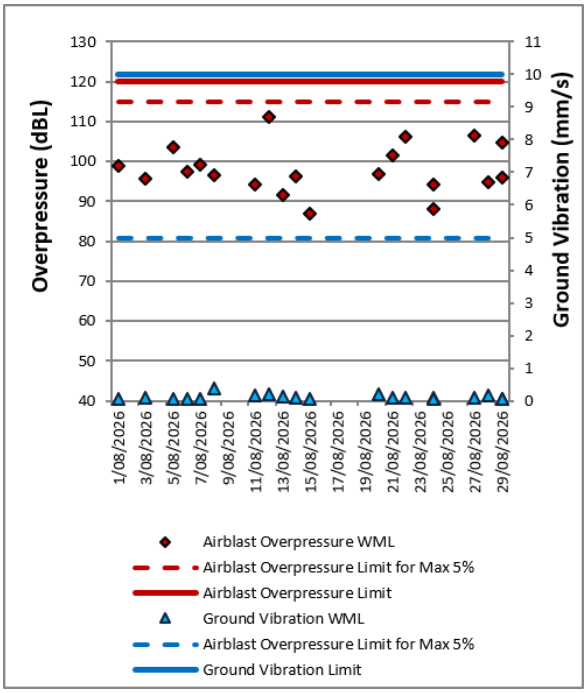


Figure 11: Putty Road MTIE Blast Monitoring Results – August 2026

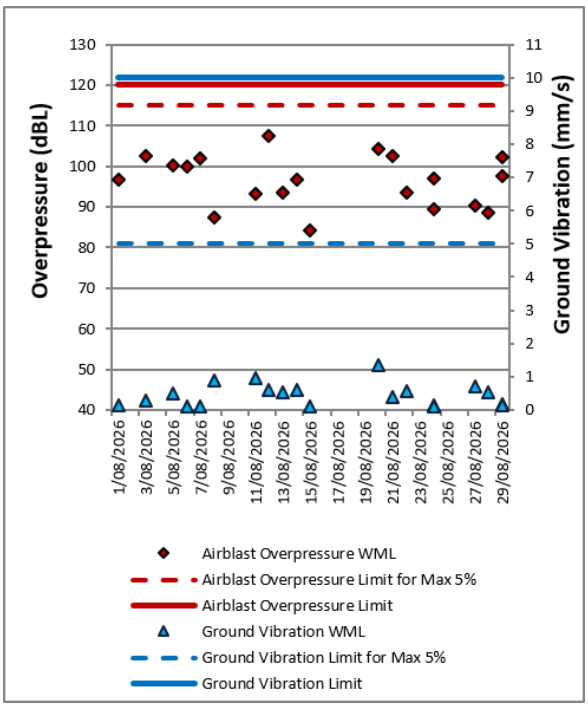


Figure 12: Wollemi Peak Road Blast Monitoring Results – August 2026

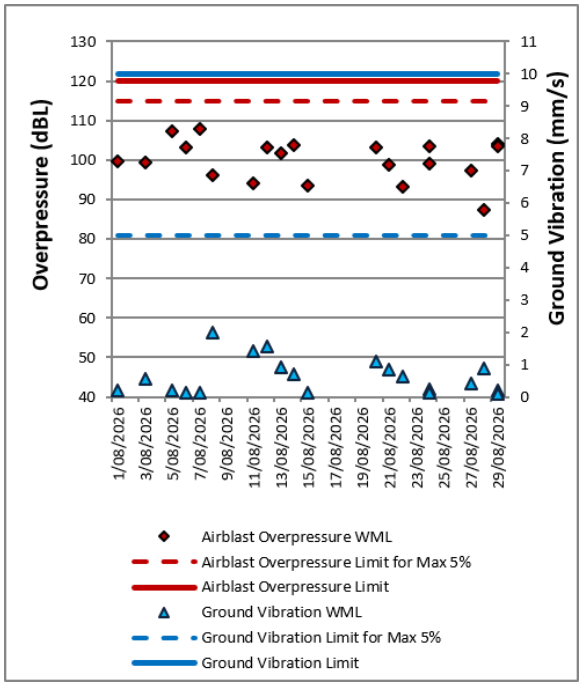


Figure 13: Wambo Road Blast Monitoring Results – August 2026

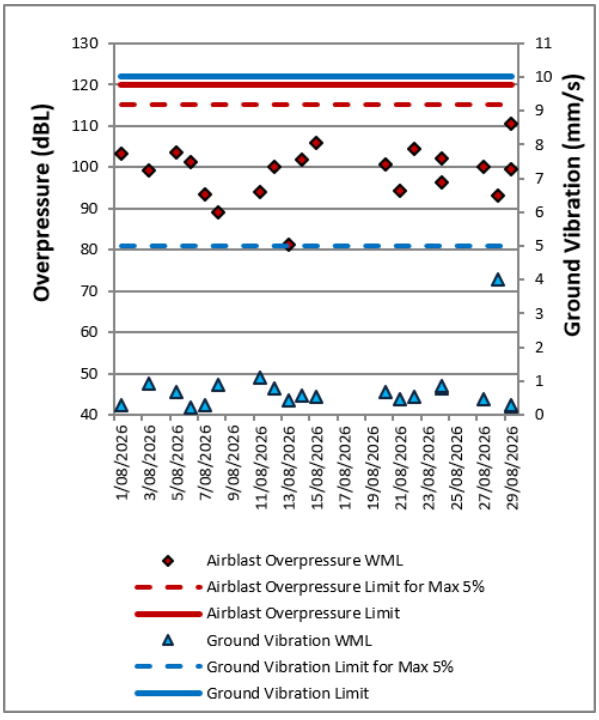


Figure 14: Warkworth Blast Monitoring Results – August 2026



Figure 15: MTW Blast Monitoring Location Plan

5.0 NOISE

Routine attended noise monitoring is carried out in accordance with the MTW Noise Management Plan. A review against EIS predictions will be reported in the Annual Review. The purpose of the noise surveys is to quantify and describe the acoustic environment around the site and compare results with specified limits. Real time noise monitoring also occurs at five sites surrounding MTW. Noise monitoring locations are displayed in **Figure 16**.

5.1 Attended Noise Monitoring Results

Attended monitoring was conducted at receiver locations surrounding MTW on the night of 17 August 2026. Measurements complied with the relevant criteria. Results are detailed in **Table 3** to **Table 6.**

5.1.1 WML Noise Assessment

Compliance assessments undertaken against the WML noise criteria are presented in **Table 3** and **Table 4**.

Table 3: $L_{Aeq,\ 15\ minute}$ Warkworth Impact Assessment Criteria – August 2026

Location	Start Date and Time	Wind Speed (m/s)	Stability Class	Criterion dB(A)	Criterion Applies?[1]	MTO $L_{Aeq,15minute}$ dB[2]	Exceedances[3]
Bulga RFS	17/08/2026 23:57	2.1	E	37	Yes	29	Nil
Bulga Village	17/08/2026 22:27	2.4	F	38	Yes	35	Nil
Gouldsville	17/08/2026 21:22	1.4	E	38	Yes	<20	Nil
Inlet Road	17/08/2026 21:26	1.3	D	37	Yes	36	Nil
Inlet Road West	17/08/2026 21:00	1.5	D	35	Yes	33	Nil
Long Point	17/08/2026 21:00	1	D	35	Yes	IA	Nil
South Bulga	17/08/2026 23:36	1.2	D	35	Yes	27	Nil
Wambo Road	17/08/2026 21:57	1.2	D	38	Yes	37	Nil

Notes:
1. Noise limits are applicable if weather conditions were within parameters specified in the approved MTW Noise Management Plan. Criterion August or August not apply due to rounding of meteorological data values.
2. Site-only LAeq,15minute, includes modifying factor penalties if applicable.
3. Bold results in red indicate exceedance of relevant criterion.

Table 4: $L_{A1,\ 1\ minute}$ Warkworth - Impact Assessment Criteria – August 2026

Location	Start Date and Time	Wind Speed (m/s)	Stability Class	Criterion dB(A)	Criterion Applies?[1]	WML $L_{A1,\ 1min}$ dB[2]	Exceedances[3]
Bulga RFS	17/08/2026 23:57	2.1	E	47	Yes	31	Nil
Bulga Village	17/08/2026 22:27	2.4	F	48	Yes	46	Nil
Gouldsville	17/08/2026 21:22	1.4	E	48	Yes	41	Nil
Inlet Road	17/08/2026 21:26	1.3	D	47	Yes	45	Nil
Inlet Road West	17/08/2026 21:00	1.5	D	45	Yes	37	Nil
Long Point	17/08/2026 21:00	1	D	45	Yes	IA	Nil
South Bulga	17/08/2026 23:36	1.2	D	45	Yes	30	Nil
Wambo Road	17/08/2026 21:57	1.2	D	48	Yes	41	Nil

Notes:
1. Noise limits are applicable if weather conditions were within parameters specified in the approved MTW Noise Management Plan. Criterion August or August not apply due to rounding of meteorological data values.
2. Site-only LA1,1minute, includes modifying factor penalties if applicable.
3. Bold results in red indicate exceedance of relevant criterion.

5.1.2 MTO Noise Assessment

Compliance assessments undertaken against the MTO noise criteria are presented in **Table 5** and **Table 6.**

Table 5: $L_{Aeq,\ 15minute}$ Mount Thorley - Impact Assessment Criteria – August 2026

Location	Start Date and Time	Wind Speed (m/s)	Stability Class	Criterion dB	Criterion Applies?[1]	MTO $L_{Aeq,15minute}$ dB[2]	Exceedances[3]
Bulga RFS	17/08/2026 23:57	2	E	37	Yes	34	Nil
Bulga Village	17/08/2026 22:27	2.2	F	38	Yes	30	Nil
Gouldsville	17/08/2026 21:22	2.6	E	35	Yes	IA	Nil
Inlet Road	17/08/2026 21:26	2.4	D	37	Yes	29	Nil
Inlet Road West	17/08/2026 21:00	2.8	D	35	Yes	IA	Nil
Long Point	17/08/2026 21:00	2.8	D	35	Yes	IA	Nil
South Bulga	17/08/2026 23:36	2.1	D	36	Yes	32	Nil
Wambo Road	17/08/2026 21:57	2.5	D	38	Yes	32	Nil

Notes:
1. Noise limits are applicable if weather conditions were within parameters specified in the approved MTW Noise Management Plan. Criterion August or August not apply due to rounding of meteorological data values.
2. Site-only LAeq,15minute, includes modifying factor penalties if applicable.
3. Bold results in red indicate exceedance of relevant criterion.

Table 6: $L_{A1, 1Minute}$ Mount Thorley - Impact Assessment Criteria – August 2026

Location	Date and Time	Wind Speed (m/s)	Stability Class	Criterion dB	Criterion Applies?[1]	MTO $L_{A1, 1min}$ dB[2]	Exceedances[3]
Bulga RFS	17/08/2026 23:57	2	E	47	Yes	40	Nil
Bulga Village	17/08/2026 22:27	2.2	F	48	Yes	36	Nil
Gouldsville	17/08/2026 21:22	2.6	E	45	Yes	IA	Nil
Inlet Road	17/08/2026 21:26	2.4	D	47	Yes	32	Nil
Inlet Road West	17/08/2026 21:00	2.8	D	45	Yes	IA	Nil
Long Point	17/08/2026 21:00	2.8	D	45	Yes	IA	Nil
Wambo Road	17/08/2026 21:57	2.5	D	48	Yes	37	Nil

Notes:
1. Noise limits are applicable if weather conditions were within parameters specified in the approved MTW Noise Management Plan. Criterion August or August not apply due to rounding of meteorological data values.
2. Site-only LA1,1minute, includes modifying factor penalties if applicable.
3. Bold results in red indicate exceedance of relevant criterion.

5.1.3 NPfI Low Frequency Assessment

In accordance with the requirements of the EPA's Noise Policy for Industry (NPfI), the applicability of the low frequency modification factor corrections has been assessed. There were no noise measurements taken during the reporting period which required the penalty to be applied.

The WML assessment for low frequency noise is shown in **Table 7** and the MTO assessment for low frequency noise is shown in **Table 8**.

Table 7: Warkworth Low Frequency Noise Assessment – August 2026

Location	Date and Time	Measured WML LAeq dB	Criterion Applies?	Intermittency Modifying Factor? [1]	Tonality Modifying Factor? [1]	Frequency of Tonality [1]	Low-frequency Modifying Factor?	Maximum Exceedance of Reference Spectrum [1,2]	Penalty dB [2]
Bulga RFS	17/08/2026 23:57	29	Yes	No	No	N/A	No	N/A	Nil
Bulga Village	17/08/2026 22:27	35	No	No	No	N/A	N/A	N/A	N/A
Gouldsville	17/08/2026 21:22	<20	Yes	No	No	N/A	No	N/A	Nil
Inlet Road	17/08/2026 21:26	36	Yes	No	No	N/A	No	N/A	Nil
Inlet Road West	17/08/2026 21:00	33	Yes	No	No	N/A	No	N/A	Nil
Long Point	17/08/2026 21:00	IA	Yes	No	No	N/A	No	N/A	Nil
South Bulga	17/08/2026 23:36	28	Yes	No	No	N/A	No	N/A	Nil

Notes:
1. Yes/No denote modifying factor was or was not applied. N/A denotes assessment was 'not applicable' due to meteorological conditions or further assessment was not required.
2. Bold results indicate that application of NPfI modifying factor/s is required.

Table 8: Mount Thorley Operations Low Frequency Noise Assessment – August 2026

Location	Date and Time	Measured MTO LAeq dB	Criterion Applies?	Intermittency Modifying Factor? [1]	Tonality Modifying Factor? [1]	Frequency of Tonality[1]	Low-frequency Modifying Factor? [1]	Maximum Exceedance of Reference Spectrum [1,2]	Penalty dB[2]
Bulga RFS	17/08/2026 23:57	34	Yes	No	No	N/A	No	N/A	Nil
Bulga Village	17/08/2026 22:27	30	No	No	No	N/A	N/A	N/A	N/A
Gouldsville	17/08/2026 21:22	IA	Yes	No	No	N/A	No	N/A	Nil
Inlet Road	17/08/2026 21:26	29	Yes	No	No	N/A	No	N/A	Nil
Inlet Road West	17/08/2026 21:00	IA	Yes	No	No	N/A	No	N/A	Nil
Long Point	17/08/2026 21:00	IA	Yes	No	No	N/A	No	N/A	Nil
South Bulga	17/08/2026 23:36	33	Yes	No	No	N/A	No	N/A	Nil

Notes:

1. Yes/No denote modifying factor was or was not applied. N/A denotes assessment was 'not applicable' due to meteorological conditions or further assessment was not required.

2. Bold results indicate that application of NPfI modifying factor/s is required.

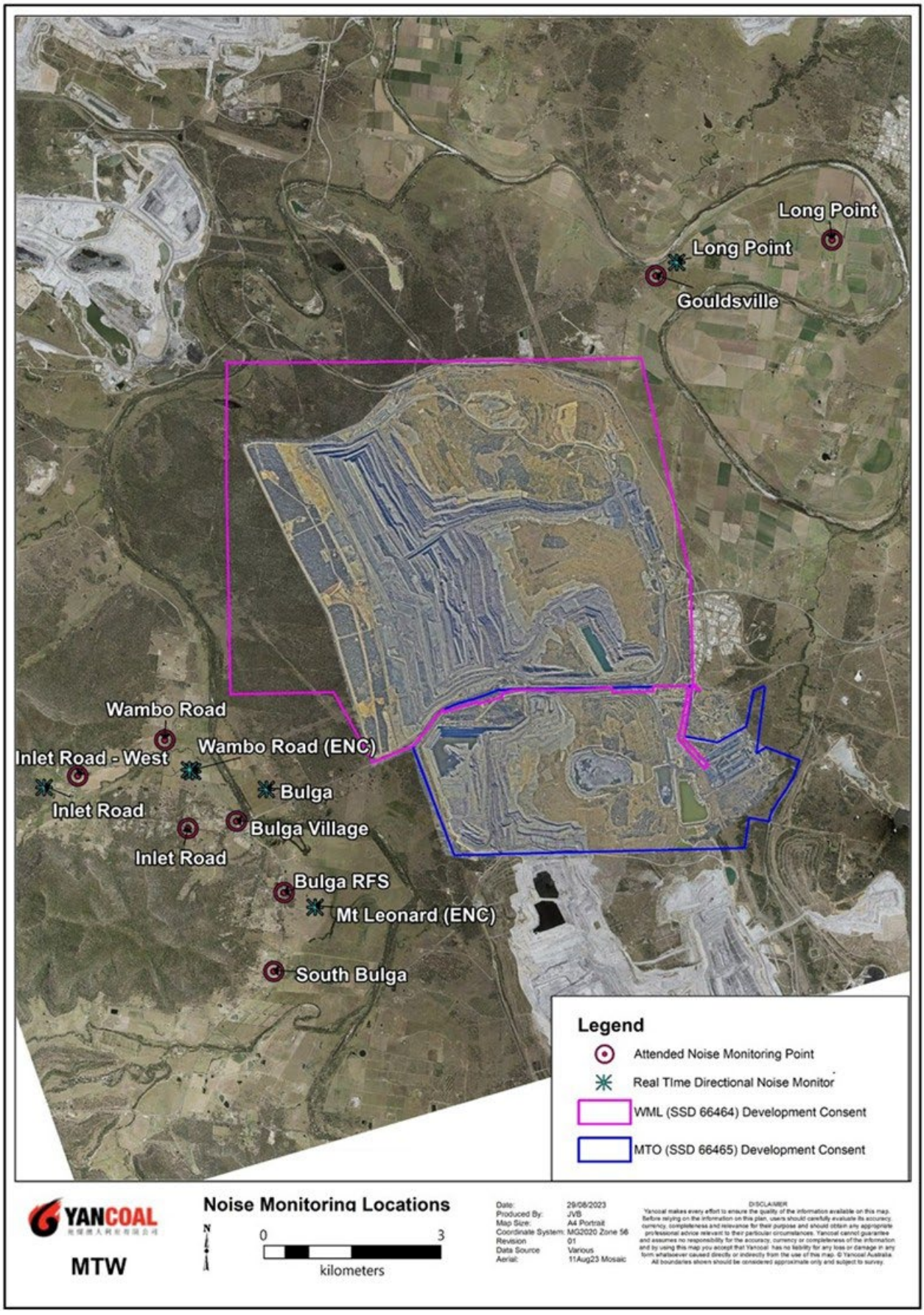


Figure 16: Noise Monitoring Location Plan

5.2 Noise Management Measures

A program of targeted supplementary attended noise monitoring is in place at MTW, supported by the real-time directional monitoring network and ensuring the highest level of noise management is maintained. The supplementary program is undertaken by MTW personnel and involves:

- Routine inspections from both inside and outside the mine boundary;
- Routine and as-required handheld noise assessments (undertaken in response to noise alarm and/or community complaint), comparing measured levels against consent noise limits; and
- Validation monitoring following operational modifications to assess the adequacy of the modifications.

Where a noise assessment identifies noise emissions which are exceeding the relevant noise limit(s) for any particular residence, modifications will be made to ensure that the noise event is resolved within 75 minutes of identification. The actions taken are commensurate with the nature and severity of the noise event, but can include:

- Changing the haul route to a less noise sensitive haul;
- Changing dump locations (in-pit or less exposed dump option);
- Reducing equipment numbers;
- Shut down of task; or
- Site shut down.

A summary of these assessments undertaken during the reporting period are provided in **Table 9.**

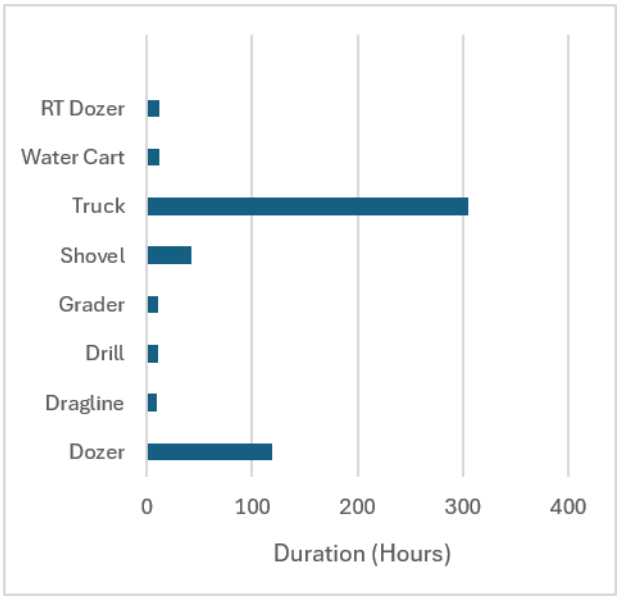
Table 9: Supplementary Attended Noise Monitoring Data – August 2026

No. of assessments	No. of assessments > trigger	No. of nights where assessments > trigger	% greater than trigger
695	8	7	1.15

6.0 OPERATIONAL DOWNTIME

During August, a total of 524 hours of equipment downtime was logged in response to environmental events such as dust, noise and adverse meteorological conditions. Operational downtime by equipment type is shown in **Figure 17**.

Figure 17: Operational Downtime by Equipment Type – August 2026



[7.0 REHABILITATION

During August 2026, 6.91 Ha of land was released, 14.16 Ha was bulk shaped, 4.31 Ha was topsoiled, 7.75 Ha was composted, and 0 Ha was rehabilitated (seeded).

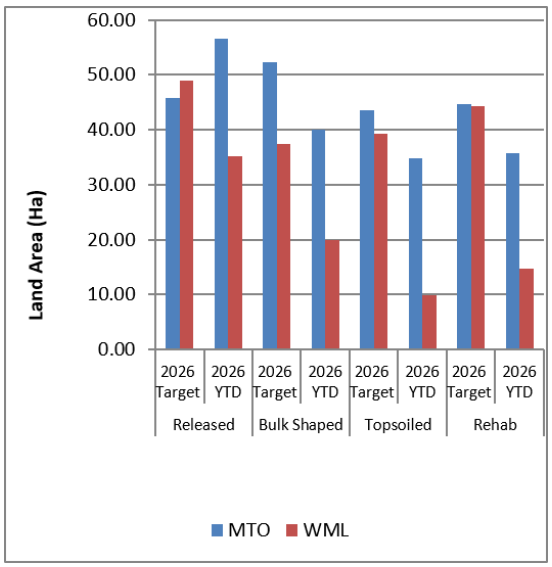


Figure 18: Rehabilitation YTD – August 2026

8.0 ENVIRONMENTAL INCIDENTS

There were no environmental incidents recorded during the reporting period.

9.0 COMPLAINTS

Seven complaints were received during the reporting period. Details of these complaints are shown in **Table 10**.

Table 10: Complaints Summary YTD

	Noise	Dust	Blast	Lighting	Other	Total
January	0	4	0	0	0	4
February	1	1	1	0	0	3
March	1	1	0	0	0	2
April	0	16	0	0	0	16
May	1	6	0	0	1	8
June	0	4	1	0	0	5
July	0	1	1	0	0	2
August	2	4	0	0	1	7
September						
October						
November						
December						
Total	5	37	3	0	2	47

Appendix A: Meteorological Data

Table 11: Meteorological Data – Charlton Ridge Meteorological Station – August 2026

Date	Air Temperature		Relative Humidity		Wind Direction	Wind Speed	Rainfall
	Maximum (°C)	Minimum (°C)	Maximum (%)	Minimum (%)	Average (°)	Average (m/sec)	total (mm)
1/08/2026	17	4	96	48	171	2.4	0.0
2/08/2026	19	4	100	42	249	2.0	0.0
3/08/2026	20	6	100	45	278	2.1	5.2
4/08/2026	19	5	100	30	278	2.1	0.2
5/08/2026	15	3	91	36	306	2.5	0.0
6/08/2026	15	2	88	37	298	1.9	0.0
7/08/2026	17	1	96	37	236	1.7	0.0
8/08/2026	17	3	95	36	167	1.6	0.0
9/08/2026	15	4	100	52	233	1.7	2.6
10/08/2026	14	7	100	53	297	5.1	5.2
11/08/2026	20	10	92	39	313	4.2	0.0
12/08/2026	19	8	79	38	318	2.7	0.0
13/08/2026	18	7	94	39	295	2.3	0.0
14/08/2026	18	4	97	38	227	1.7	0.0
15/08/2026	17	7	95	56	180	2.2	0.0
16/08/2026	17	9	100	51	159	2.8	1
17/08/2026	17	8	100	55	152	2.8	0.8
18/08/2026	16	9	100	71	162	2.6	1.2
19/08/2026	18	7	100	55	152	1.6	0.2
20/08/2026	23	6	100	35	283	1.6	0.0
21/08/2026	16	10	100	64	323	2.5	3.4
22/08/2026	22	11	99	40	324	3.1	0.0
23/08/2026	19	8	91	55	166	1.9	0.0
24/08/2026	23	7	100	38	198	1.8	0.0
25/08/2026	20	10	100	58	312	1.7	5.8
26/08/2026	21	12	100	60	232	2.2	3.4
27/08/2026	18	10	97	56	122	1.6	0.2
28/08/2026	22	7	100	44	233	2.3	0.0
29/08/2026	19	10	99	53	147	2.1	0.0
30/08/2026	21	7	100	43	226	1.8	0.0
31/08/2026	22	7	100	30	183	1.7	0.0