

WERRIS CREEK COAL COMMUNITY CONSULTATIVE COMMITTEE
58th Meeting of the Committee held at the Werris Creek Bowling Club on
Wednesday, 9 March 2022

Meeting opened at 9:40AM.

Record of attendance

Michael Silver OAM	Independent Chairperson
Jane Bradford OAM	Independent Minute Taker
Megan Martin	Werris Creek Coal - Environmental Superintendent
Harry Mills	Whitehaven Coal - Environmental Officer
Murray O'Keefe	Whitehaven Coal – Operations Manager
Andrew Garrett	Whitehaven Coal – General Manager Community Engagement
Lindsay Bridge	Community Representative
Noel Taylor	Community Representative

Note: *No Council representative has been appointed by Liverpool Plains Shire as yet.*

Non-Attendance

Mike Lomax	Community Representative
James O'Brien	Community Representative
Col Stewart OAM	Community Representative

2 Acknowledgement of Country

The Chair acknowledged the Traditional Owners of the land on which the meeting is being held and recognised their continuing connection to the land, water and culture, paying respects to their Elders past, present and emerging.

3 Declaration of Pecuniary or Other Interests –

The Chair advised that his meeting expenses are borne by the proponent.
Other members - Nil

4 Minutes of the previous 57th meeting held on 10 November 2021 were approved on 6 December 2021.

5 Matters Arising - Nil

6 Environmental Monitoring Report from 1 October to 31 January 2022

Megan Martin went through the Report with the following comments

1.0 Meteorology

1.1 Weather Station – The only comment was that it has been an exceptionally wet year with October – November well above the historical average – December – January just below average.

2.00 Air Quality

2.2.1 No non-compliance –DG34, 8 Kurrara Street had a high annual average, but this is under investigation as it is likely to be invalid data. Considering finding an alternate place for the dust deposition gauge to be placed.

4.2 Blast Complaints

4.2 There were five complaints during this period regarding random blast vibration or overpressure – windows shaken – however upon checking – all within criteria.

5.0 Water

5.1.2 Seasonal normal – Megan Martin to suggest that the Group Water Manager attends the next meeting. Majority of groundwater bores monitored have increased their standing water levels. Quipolly bore down 22' to find water – currently up to 58' – Noel Taylor wants to wait to see if the bore level balances out – not prepared to purchase a new meter at a cost of \$5,000.

7 General Business

7.1 Life of Mine Up-date

Still aiming for 2024 – no changes at this stage.

7.2 WCC Lodgement of Modification to existing approval (MOD5)

Proceeding as anticipated at this stage

7.4 WHC Sponsorship and Donations Process

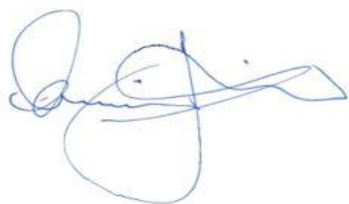
- Andrew Garratt advised of the following sponsorships granted by the community investment committee for the Liverpool Plains Shire Council made over the past four months:
 - ❖ Currabubula Preschool \$5,000
 - ❖ Walhollow Public School \$5,000
 - ❖ Currabubula Red Cross Art Show \$1,500
 - ❖ Murrurundi & District Pony Club \$1,500
- Andrew confirmed a meeting with Liverpool Plains Council five weeks ago suggesting that it should start looking at opportunities when the mine closes – not that far away.

Dates for Applications

Application Rounds	Round 1	Round 2	Round 3	Round 4
Applications open	1 January	1 April	1 July	1 October
Applications close	31 January	30 April	31 July	31 October
Successful applicants contacted	1 March	1 June	1 September	1 December

Next meeting Wednesday, 13 July 2022 at 9:30am – Venue - Werris Creek Bowling Club

Meeting closed at 10:15AM



Mike Silver OAM
Independent Chairperson

3 April 2022

Copy to all Committee Members and posted on the Whitehaven Coal website.



WERRIS CREEK COAL PTY LTD

QUARTERLY ENVIRONMENTAL MONITORING REPORT

October 2021 – January 2022

This Environmental Monitoring Report covers the period 1st October 2022 to 31st January 2022 for the Werris Creek Coal Mine Community Consultative Committee.

The report includes environmental monitoring results from the on-site Weather Station, Air Quality, Noise, Blasting, Surface Water, Groundwater and Discharge Water Quality together with any community complaints received and general details on site environmental matters.

Note: Elevated monitoring results above the relevant monitoring criteria are highlighted in **yellow**.

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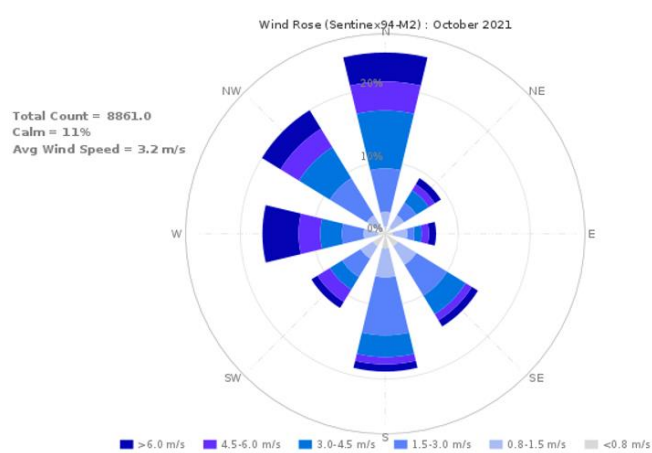
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1.0 METEOROLOGY

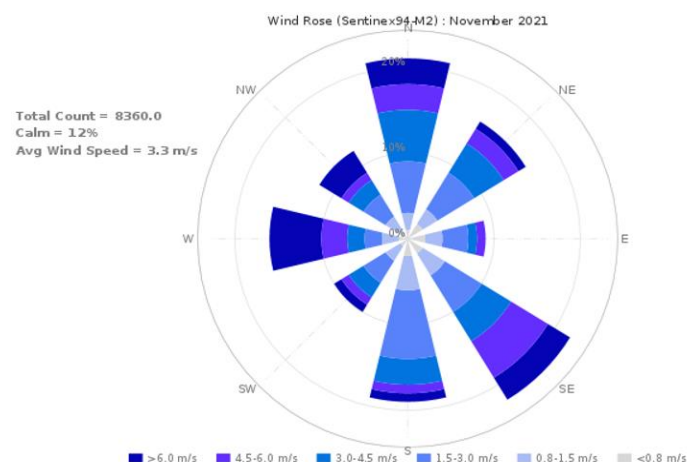
1.1 WEATHER STATION

Werris Creek Coal (WCC) collects meteorological data from the onsite weather station located on the top level of the overburden emplacement. The following table summarises rainfall data for the last four months. The monthly rainfall total in October-November 2021 was above the historical average and below during December 2021 and January 2022. Directional wind data, presented in the wind-rose figures below, indicate the prevailing wind direction was predominantly from the north in October 2021 and from the south-east November 2021 through to January 2022.

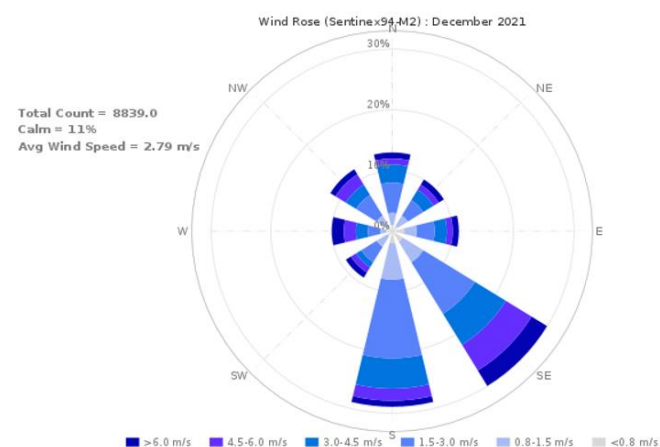
Month	Rainfall (mm)			
	Onsite	Historical Average	2021 Total	2022 Total
October 2021	68.0	58.8	771.0	
November 2021	243.4	88.9	1014.4	
December 2021	61.6	87.3	1076.0	
January 2022	60.4	65.2		60.4



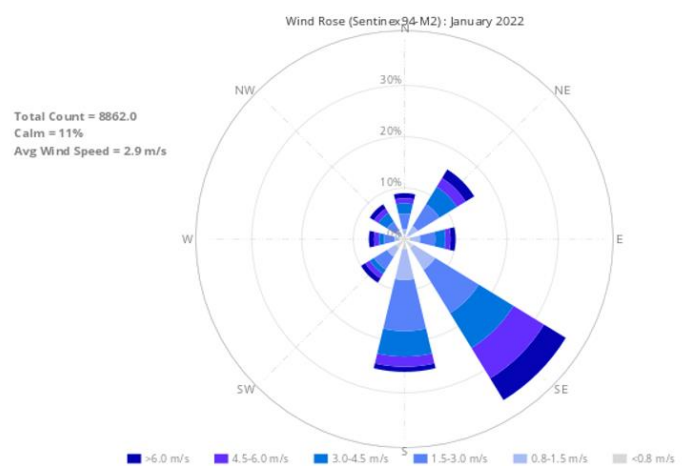
OCTOBER 2021



NOVEMBER 2021



DECEMBER 2021



JANUARY 2022

2.0 AIR QUALITY

2.1 HVAS (PM₁₀) and TEOM (PM₁₀ & PM_{2.5})

WCC operates five High Volume Air Samplers (HVAS), four sites measuring particulate matter less than 10 microns (PM₁₀) and one site measuring total suspended particulate (TSP) matter. HVAS sampling is scheduled every 6 days for a 24-hour run period in accordance with Environment Protection Authority (EPA) guidelines. Results are reported in micro grams per cubic metre (µg/m³) of air sampled. In addition, WCC operates a Tapered Element Oscillating Microbalance (TEOM) monitor in Werris Creek measuring real time PM₁₀ and PM_{2.5} (particulate matter less than 2.5 microns) dust levels. Dust monitoring locations are identified in **Figure 1**.

2.1.1 Monitoring Data Results

The average results for the last four months are provided in the table below.

MONITORING LOCATION	24Hr Maximum (µg/m ³)	OCT 2021 (µg/m ³)	NOV 2021 (µg/m ³)	DEC 2021 (µg/m ³)	2021 AVG (µg/m ³)	JAN 2022 (µg/m ³)	2022 AVG (µg/m ³)	CRITERIA (µg/m ³)	
								Annual	24hr
PM _{2.5} – TEOM92 “Werris Creek”	13.3	2.4	0.3	4.9	4.7	6.3	6.3	-	-
PM ₁₀ – TEOM92 “Werris Creek”	28.7	8.2	6.1	11.6	9.4	10.0	10.0	30	50
PM ₁₀ – HVP20 “Tonsley Park”	14.1	8.4	7.5	7.3	10.7	6.7	6.7	30	50
PM ₁₀ – HVP1 “Escott”	9.0	5.1	4.4	4.9	6.1	5.2	5.2	30	50
PM ₁₀ – HVP11 “Glenara”	23.3	6.6	6.3	9.1	8.9	8.2	8.2	30	50
PM ₁₀ – HVP98 “Kyooma”	9.0	5.8	4.3	4.0	5.6	4.7	4.7	30	50
TSP – HVT98 “Kyooma”	47.6	27.0	13.4	12.2	16.7	10.9	10.9	90	-

Yellow Bold – Elevated dust level.

2.1.2 Discussion - Compliance / Non Compliance

All TSP, PM₁₀ and PM_{2.5} dust results were within criteria during the period.

2.2 WERRIS CREEK MINE DEPOSITED DUST

Deposited dust monitoring measures particulate matter greater than 30 microns in size that readily settles out of the air related to visual impact. Dust deposition is monitored at 18 locations around WCC. Sampling is scheduled monthly in accordance with EPA guidelines and results are reported as grams per square metre per month (g/m².month). Dust monitoring locations are identified in **Figure 1**.

2.2.1 Monitoring Data Results

The results for the last four months are provided in the table below.

MONITORING LOCATION	OCT 2021 (g/m ² /month)	NOV 2021 (g/m ² /month)	DEC 2021 (g/m ² /month)	2021 AVERAGE (g/m ² /month)	JAN 2022 (g/m ² /month)	2022 AVERAGE (g/m ² /month)	Annual Criteria (g/m ² /month)
DG1 "Escott"	1.6	1.0	1.5	0.8	1.5	1.5	4.0
DG2 "Cintra"	2.3	2.7	1.9	3.8	#	#	4.0
DG3 "Eurunderee"	1.1	1.0	2.2	1.3	0.9	0.9	4.0
DG5 "Railway View"	4.0	3.0	1.8	2.5	2.6	2.6	4.0
DG9 "Marengo"	1.4	1.4	2.9	1.0	2.2	2.2	4.0
DG11 "Glenara"	1.1	0.6	0.4	0.9	2.2	2.2	4.0
DG14 "Greenslopes"	0.5	1.9	0.7	0.7	0.7	0.7	4.0
DG15 "Plain View"	0.2	0.6	0.4	0.6	0.8	0.8	4.0
DG17 "Woodlands"	1.2	1.2	0.8	1.1	1.4	1.4	4.0
DG20 "Tonsley Park"	0.8	0.4	0.9	1.2	1.8	1.8	4.0
DG22 "Mountain View"	1.1	1.5	3.0	1.1	1.2	1.2	4.0
DG24 "Hazeldene"	0.9	0.7	0.9	0.9	2.3	2.3	4.0
DG34 8 Kurrara St	0.8	0.6	0.7	5.8	0.2	0.2	4.0
DG62 Werris Creek South	1.2	0.8	0.8	0.6	0.8	0.8	4.0
DG92 Werris Creek Centre	0.5	0.6	0.5	0.4	0.3	0.3	4.0
DG98 "Kyooma"	1.0	1.2	2.1	0.8	2.6	2.6	4.0
DG101 "Westfall"	1.5	0.9	2.3	1.3	1.7	1.7	4.0
DG103 West Street	0.9	1.3	0.9	1.3	2.5	2.5	4.0

* - sample contaminated with excessive organic matter (>50%) from non-mining source (i.e., bird droppings and insects); # - indicates sample is contaminated from a Non-Werris Creek Coal dust source; **Yellow Bold** – Elevated dust level; NS - Not Sampled; Damage – stand and bottle vandalised

2.2.2 Discussion - Compliance / Non-Compliance

All monthly dust deposition gauge results were below the annual criteria of 4.0 g/m²/month throughout the period with the exception of:

- DG34 (8 Kurrara St) had an anomalous high result in August 2021 and subsequently a rolling average above criteria. Deposited dust levels remained low at all other nearby gauges, indicating a localised source of dust, unrelated to activities at Werris Creek Coal Mine.

2.3 AIR QUALITY COMPLAINTS

There were no dust complaints recorded during the period.

3.0 NOISE

3.1 OPERATIONAL NOISE

Monthly attended noise monitoring is undertaken representative of the following 16 properties from 13 monitoring points below. Attended noise monitoring was undertaken twice for either 60 minutes at privately owned properties or 15 minutes at properties with private agreements; representative of the day period and the evening/night period.

3.1.1 Monitoring Data Results

The WCC operations only noise level (not ambient noise) results for the last four months are outlined in the tables below. Noise monitoring locations are identified in **Figure 2**.

28th Thursday and 29th Friday, October 2021

Location		Day dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min	Evening/Night dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min
A	"Rosehill" R5	Inaudible	35	Inaudible*	35
B	West Quipolly (R7*, R8*, R9* & R22*)	Inaudible	40	Inaudible*	40
C	Central Quipolly (R10*, R11*)	Inaudible	40	Inaudible*	40
D	"Hazeldene" R24	Inaudible	37	Inaudible*	37
E	"Railway Cottage" R12	Inaudible	38	20*	38
F	"Talavera" R96	Inaudible	38	Inaudible	37
H	"Kyooma" R98*	Inaudible	40	23	40
I	Kurrara St, WC R57	Inaudible*	35	25	35
J	Coronation Ave, WC	Inaudible*	35	Inaudible	35
K	Alco Park (R21*)	27*	40	23*	40
L	West St, WC (R103)	24*	35	Inaudible*	35

WC – Werris Creek; * - Private agreement in place with resident; **Yellow Bold** – Elevated noise; # Adverse weather with wind >3m/s, temperature inversions >+12°C/100m or >2m/s and >0°C/100m; 1 – R22 criteria is 36 dB(A) L_{eq} 15min while R9 is 37 dB(A) L_{eq} 15min

NM- Denotes Not Measurable. If site only noise is noted as NM, this means some noise from the source of interest was audible at low-levels, but could not be quantified

16th Tuesday, November 2021

Location		Day dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min	Evening/Night dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min
A	"Rosehill" R5	Inaudible	35	Inaudible	35
B	West Quipolly (R7*, R8*, R9* & R22*)	Inaudible*	40	Inaudible	40
C	Central Quipolly (R10*, R11*)	Inaudible*	40	Inaudible	40
D	"Hazeldene" R24	Inaudible	37	Inaudible*	37
E	"Railway Cottage" R12	Inaudible	38	Inaudible	38
F	"Talavera" R96	25	38	21	37
H	"Kyooma" R98*	23*	40	24*	40
I	Kurrara St, WC R57	Inaudible*	35	Inaudible	35
J	Coronation Ave, WC	Inaudible	35	Inaudible	35
K	Alco Park (R21*)	24	40	27	40
L	West St, WC (R103)	25*	35	22*	35

WC – Werris Creek; * - Private agreement in place with resident; **Yellow Bold** – Elevated noise; # Adverse weather with wind >3m/s, temperature inversions >+12°C/100m or >2m/s and >0°C/100m; 1 – R22 criteria is 36 dB(A) L_{eq} 15min while R9 is 37 dB(A) L_{eq} 15min

NM- Denotes Not Measurable. If site only noise is noted as NM, this means some noise from the source of interest was audible at low-levels, but could not be quantified

20th Monday and 21st Tuesday, December 2021

Location		Day dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min	Evening/Night dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min
A	"Rosehill" R5	Inaudible*	35	Inaudible*	35
B	West Quipolly (R7*, R8*, R9* & R22*)	Inaudible*	40	30*	40
C	Central Quipolly (R10*, R11*)	23	40	Inaudible	40
D	"Hazeldene" R24	26*	37	Inaudible*	37
E	"Railway Cottage" R12	Inaudible*	38	Inaudible	38
F	"Talavera" R96	Inaudible*	38	Inaudible	37
H	"Kyooma" R98*	21*	40	Inaudible	40
I	Kurrara St, WC R57	24*	35	28	35
J	Coronation Ave, WC	Inaudible*	35	Inaudible	35
K	Alco Park (R21*)	Inaudible*	40	Inaudible	40
L	West St, WC (R103)	Inaudible*	35	Inaudible	35

WC – Werris Creek; * - Private agreement in place with resident; **Yellow Bold** – Elevated noise; # Adverse weather with wind >3m/s, temperature inversions >+12°C/100m or >2m/s and >0°C/100m; 1 – R22 criteria is 36 dB(A) L_{eq} 15min while R9 is 37 dB(A) L_{eq} 15min

NM- Denotes Not Measurable. If site only noise is noted as NM, this means some noise from the source of interest was audible at low-levels, but could not be quantified

17th Monday, January 2022

Location		Day dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min	Evening/Night dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min
A	"Rosehill" R5	Inaudible	35	Inaudible	35
B	West Quipolly (R7*, R8*, R9* & R22*)	Inaudible	40	Inaudible*	40
C	Central Quipolly (R10*, R11*)	Inaudible	40	Inaudible*	40
D	"Hazeldene" R24	Inaudible	37	Inaudible*	37
E	"Railway Cottage" R12	Inaudible	38	Inaudible	38
F	"Talavera" R96	Inaudible	38	Inaudible*	37
H	"Kyooma" R98*	Inaudible	40	Inaudible	40
I	Kurrara St, WC R57	Inaudible	35	Inaudible	35
J	Coronation Ave, WC	Inaudible	35	Inaudible*	35
K	Alco Park (R21*)	22	40	23*	40
L	West St, WC (R103)	Inaudible	35	Inaudible*	35

WC – Werris Creek; * - Private agreement in place with resident; **Yellow Bold** – Elevated noise; # Adverse weather with wind >3m/s, temperature inversions >+12°C/100m or >2m/s and >0°C/100m; 1 – R22 criteria is 36 dB(A) L_{eq} 15min while R9 is 37 dB(A) L_{eq} 15min

NM- Denotes Not Measurable. If site only noise is noted as NM, this means some noise from the source of interest was audible at low-levels, but could not be quantified

3.1.2 Discussion - Compliance / Non-Compliance

Noise from Werris Creek Coal Mine was inaudible at a high percentage of the monitoring sites during the quarter. Throughout the period, Werris Creek Coal Mine adjusted mining operations and shut down equipment at various times to reduce noise generation potential in response to noise levels measured at the real time noise monitors.

3.2 Noise complaints

There were no noise complaints recorded during the period.

4.0 BLASTING

During the reporting period there was a total of 17 blasts fired by WCC with monitoring of each blast undertaken at "Glenara", "Kyooma", "Werris Creek South" and "Werris Creek Mid". Compliance limits for blasting overpressure is 115dB(L) (and up to 120dB(L) for only 5% of blasts) and vibration is 5mm/s (and up to 10mm/s for only 5% of blasts). Blast monitoring locations are identified in **Figure 3**.

4.1 BLAST MONITORING**4.1.1 Monitoring Data Results**

The summary tables of blasting results over the last four months are provided below.

October 2021		"Glenara" R11		"Kyooma" R98		Werris Creek South R62		Werris Creek Mid R92	
		mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)
Monthly Average		0.18	100.7	1.43	103.9	1.00	103.6	0.45	100.7
Monthly Maximum		0.21	102.6	1.77	105.9	1.30	105.6	0.61	101.9
Annual Average		0.13	99.9	0.86	100.9	0.53	102.0	0.33	100.5
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	Rolling 12-mo Average	0.00%	1.69%	0.00%	0.00%	0.00%	1.69%	0.00%	0.00%
	YTD	0.00%	2.08%	0.00%	0.00%	0.00%	2.08%	0.00%	0.00%

November 2021		"Glenara" R11		"Kyooma" R98		Werris Creek South R62		Werris Creek Mid R92	
		mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)
Monthly Average		0.09	100.5	0.54	100.9	0.38	104.4	0.20	99.2
Monthly Maximum		0.16	108.4	0.74	104.0	0.65	111.9	0.26	103.8
Annual Average		0.12	99.9	0.83	100.9	0.52	102.3	0.32	100.4
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	Rolling 12-mo Average	0.00%	1.64%	0.00%	0.00%	0.00%	1.64%	0.00%	0.00%
	YTD	0.00%	1.89%	0.00%	0.00%	0.00%	1.89%	0.00%	0.00%

December 2021		"Glenara" R11		"Kyooma" R98		Werris Creek South R62		Werris Creek Mid R92	
		mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)
Monthly Average		0.12	98.1	0.80	100.6	0.50	102.1	0.30	96.9
Monthly Maximum		0.16	99.9	1.26	104.5	0.74	106.1	0.44	102.9
Annual Average		0.12	99.8	0.83	100.9	0.52	102.3	0.32	100.1
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	Rolling 12-mo Average	0.00%	1.72%	0.00%	0.00%	0.00%	1.72%	0.00%	0.00%
	YTD	0.00%	1.72%	0.00%	0.00%	0.00%	1.72%	0.00%	0.00%

January 2022		"Glenara" R11		"Kyooma" R98		Werris Creek South R62		Werris Creek Mid R92	
		mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)
Monthly Average		0.18	103.8	1.01	99.9	0.55	102.4	0.60	99.5
Monthly Maximum		0.24	112.2	1.71	102.3	0.78	110.5	0.89	104.7
Annual Average		0.18	103.8	1.01	99.9	0.55	102.4	0.60	99.5
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	Rolling 12-mo Average	0.00%	1.75%	0.00%	0.00%	0.00%	1.75%	0.00%	0.00%
	YTD	0.00%	2.22%	0.00%	0.00%	0.00%	2.22%	0.00%	0.00%

Yellow – overpressure >115dB(L) or Werris Creek vibration >5.0mm/s.

4.1.2 Discussion - Compliance / Non-Compliance

All blasts over the period complied with maximum licence limits (120dB(L) and 10mm/s) as well as the 95th percentile limits (115dB(L) and 5mm/s).

4.2 BLAST COMPLAINTS

There were five (5) blast complaints during the period regarding blast vibration or overpressure.

5.0 WATER

The groundwater monitoring program monitors groundwater levels bi-monthly and groundwater quality six monthly. Surface water monitoring is undertaken quarterly.

5.1 GROUND WATER

Groundwater monitoring is undertaken to identify if there are any impacts on groundwater quality and water levels as a result of the mining operations. WCC monitors approximately 38 groundwater wells/bore and piezometers in the key aquifers surrounding WCC including Werrie Basalt (next to WCC and further afield) and Quipolly Creek Alluvium.

Groundwater level surveys were completed between 5-30 November 2021 and also 7-11 January 2022. Groundwater monitoring locations are identified in **Figure 4**.

5.1.1 Monitoring Data Results

A summary of groundwater monitoring results has been provided below.

Site		November-21	
		mbgl	%
Werrie Basalt near WCC	MW1	Dry	
	MW2	43.50	13%
	MW3	18.74	2%
	MW4B	18.03	3%
	MW5	10.86	5%
	MW6	16.43	-1%
	MW27*	55.27	2%
	MW36A	17.27	-3%
	MW36B	17.29	-3%
Werrie Basalt	MW8*	11.29	7%
	MW10	8.79	1%
	MW14	13.59	-4%
	MW17B*	10.06	5%
	MW19A*	Pump over bore	
	MW20*	20.14	3%
	MW38A	8.58	0%
	MW38B*	8.77	2%
	MW38C*	21.59	0%
	MW38E*	8.36	1%
	MW41	5.34	4%
	MW43	4.68	2%
# ¹	MW24A*	12.53	-2%
	MW29*	10.26	-2%
Quipolly Alluvium	MW12*	7.02	9%
	MW13*	4.01	15%
	MW13B*	2.70	16%
	MW13D*	3.67	22%
	MW15*	No access	
	MW16*	3.72	22%
	MW17A*	3.40	13%
	MW18A*	3.56	7%
	MW21A*	#N/A	#N/A
	MW22A*	3.78	21%
	MW22B*	3.73	26%
	MW23A*	3.28	8%
	MW23B*	No access	
	MW26B*	4.48	25%
	MW28A*	5.72	6%
	MW32*	Pump over bore	
	MW40	5.35	4%
	MW42	4.62	2%
	MW34*	8.95	3%

Site		January-22	
		mbgl	%
Werrie Basalt near WCC	MW1	Dry	
	MW2	37.71	15%
	MW3	18.38	2%
	MW4B	17.28	4%
	MW5	9.87	10%
	MW6	15.47	6%
	MW27*	52.82	5%
	MW36A	17.29	0%
	MW36B	17.28	0%
Werrie Basalt	MW8*	10.81	4%
	MW10	8.53	3%
	MW14	13.52	1%
	MW17B*	9.15	10%
	MW19A*	Pump over bore	
	MW20*	19.41	4%
	MW38A	8.91	-4%
	MW38B*	8.60	2%
	MW38C*	21.29	1%
	MW38E*	No access	
	MW41	4.57	17%
	MW43	4.16	13%
# ¹	MW24A*	12.05	4%
	MW29*	9.66	6%
Quipolly Alluvium	MW12*	6.93	1%
	MW13*	4.49	-11%
	MW13B*	3.02	-11%
	MW13D*	3.94	-7%
	MW15*	No access	
	MW16*	3.91	-5%
	MW17A*	3.02	13%
	MW18A*	3.18	12%
	MW21A*	4.63	24%
	MW22A*	3.86	-2%
	MW22B*	3.78	-1%
	MW23A*	3.38	-3%
	MW23B*	No Record	
	MW26B*	4.16	8%
	MW28A*	5.12	12%
	MW32*	Pump over bore	
	MW40	4.58	17%
	MW42	4.22	9%
	MW34*	8.70	3%

mbgl – meters below ground level is the distance in meters from top of bore to groundwater surface; **Orange** – Change decrease; **Green** – change increase or no change; * - Indicates bore is used for water extraction unrelated to WCC (i.e. stock and domestic or irrigation). #¹ – Werrie Basalt in the Black Soil Gully valley to east of Werris Creek Mine. #² - Werris Creek Alluvium.

5.1.2 Discussion - Compliance / Non-Compliance

Measured groundwater levels in the Werrie Basalt and Quipolly Alluvium aquifer indicate an overall increase in water levels during November 2021 and January 2022, although some locations were noted as having a slight decrease.

5.2 SURFACE WATER

Surface water monitoring is undertaken in local creeks offsite as well as from discharge point dirty water dams to monitor for potential water quality issues. Quarterly surface water monitoring was undertaken 9th and 10th November 2021. Surface water monitoring locations are identified in **Figure 5**.

5.2.1 Monitoring Data Results

Summary of surface water quality monitoring results has been provided below.

9th & 10th November 2021

Site	pH	EC	TSS	O&G	Change from Previous Quarter or General Comments
ONSITE					
SB2	7.93	343	26	<5	Low water level
SB9	7.66	301	34	<5	Low water level
SB10	8.1	264	123	<5	Low water level
SB18	Dry	Dry	Dry	Dry	Dry (muddy)
OFFSITE					
QCU	7.53	316	9	<5	Flowing
QCD	7.84	873	24	<5	Flowing
WCU	7.82	543	28	<5	Flowing
WCD	7.65	563	128	<5	Flowing

pH – measure of acidity/alkalinity; EC – Electrical Conductivity measures salinity; TSS – Total Suspended Solids is a measure of suspended sediment in water (i.e. similar to turbidity); O&G – Oil and Grease measures amount of hydrocarbons (oils and fuels) in water. NA – No Access

5.2.2 Discussion - Compliance / Non-Compliance

Quarterly surface water monitoring was undertaken on 9th and 10th November 2021. All water quality results were within long-term averages and the Site Water Management Plan trigger values.

5.3 SURFACE WATER DISCHARGES

5.3.1 Monitoring Data Results

There were two uncontrolled discharge events in November 2021 following above average rainfall during the month. Four controlled discharge events also occurred in November 2021.

Sampling conducted within the Quipolly and Werris Creek system during the discharge events was in accordance with licence conditions.

Sample Date	Dam	pH	EC	TSS	O&G	Compliance	Type	5 Day Rain (mm)
04/11/2021	SB3 (EPA10)	8.0	550	11	<5	Yes	Controlled	N/A
04/11/2021	QCU (EPA25)	7.1	1120	<2	<5	Yes	Controlled	N/A
04/11/2021	QCD (EPA26)	7.8	990	16	<5	Yes	Controlled	N/A
18/11/2021	SB3 (EPA10)	8.0	1040	14	<5	Yes	Controlled	N/A
18/11/2021	SB11 (EPA12)	7.9	510	4	<5	Yes	Controlled	N/A
18/11/2021	QCU (EPA25)	7.2	700	<2	<5	N/A	Controlled	N/A
18/11/2021	QCD (EPA26)	7.7	540	8	<5	N/A	Controlled	N/A
22/11/2021	SB10 (EPA14)	7.5	150	148	<5	Yes - TSS Ok because rainfall >39.2mm	Wet weather - uncontrolled	62.6
22/11/2021	WCU (WPA23)	8.0	190	162	<5	N/A	Wet weather - uncontrolled	62.6
22/11/2021	WCD (WPA24)	8.1	190	681	6	N/A	Wet weather - uncontrolled	62.6
24/11/2021	SB3 (EPA10)	8.2	380	18	<5	Yes	Controlled	N/A
24/11/2021	SB11 (EPA12)	8.1	410	14	<5	Yes	Controlled	N/A
24/11/2021	SB10 (EPA14)	7.8	310	34	<5	Yes	Controlled	N/A
24/11/2021	QCU (EPA25)	8.1	310	16	6	N/A	Controlled	N/A
24/11/2021	QCD (EPA26)	8.0	320	20	<5	N/A	Controlled	N/A
24/11/2021	WCU (WPA23)	8.2	360	24	<5	N/A	Controlled	N/A
24/11/2021	WCD (WPA24)	8.2	360	36	<5	N/A	Controlled	N/A

26/11/2021	SB3 (EPA10)	7.9	200	2980	<5	Yes - TSS Ok because rainfall >39.2mm	Wet weather - uncontrolled	88.2
26/11/2021	SB11 (EPA12)	7.9	300	77	<5	Yes - TSS Ok because rainfall >39.2mm	Wet weather - uncontrolled	88.2
26/11/2021	SB10 (EPA14)	7.3	110	231	<5	Yes - TSS Ok because rainfall >39.2mm	Wet weather - uncontrolled	88.2
26/11/2021	QCU (EPA25)	7.9	190	256	<5	N/A	Wet weather - uncontrolled	88.2
26/11/2021	QCD (EPA26)	7.2	140	84	<5	N/A	Wet weather - uncontrolled	88.2
26/11/2021	WCU (WPA23)	8.1	150	535	<5	N/A	Wet weather - uncontrolled	88.2
26/11/2021	WCD (WPA24)	8.2	160	2305	<5	N/A	Wet weather - uncontrolled	88.2
29/11/2021	SB3 (EPA10)	7.6	170	6	<5	Yes	Controlled	N/A
29/11/2021	SB11 (EPA12)	7.9	380	35	<5	Yes	Controlled	N/A
29/11/2021	SB10 (EPA14)	7.9	330	32	<5	Yes	Controlled	N/A
29/11/2021	QCU (EPA25)	8.0	250	16	<5	N/A	Controlled	N/A
29/11/2021	QCD (EPA26)	7.9	270	23	<5	N/A	Controlled	N/A
29/11/2021	WCU (WPA23)	8.2	420	25	<5	N/A	Controlled	N/A
29/11/2021	WCD (WPA24)	8.2	310	57	<5	N/A	Controlled	N/A
Criteria		6.5 - 8.5	N/A	50	10			

pH – measure of acidity/alkalinity; EC – Electrical Conductivity measures salinity; TSS – Total Suspended Solids is a measure of suspended sediment in water (i.e. similar to turbidity); O&G – Oil and Grease measures amount of hydrocarbons (oils and fuels) in water; **Bold** – indicates results outside criteria due to 5 day rain trigger >39.2mm.

5.3.2 Discussion - Compliance / Non-Compliance

Sampling results were in compliance with WCC's Environmental Protection Licence.

5.4 WATER COMPLAINTS

There were no water release complaints during the period.

6.0 COMPLAINTS SUMMARY

There were 7 complaints received during the period which are summarised below.

#	Date	Issue	Complaint	Investigation	Action Taken
634	8/10/2021	Vibration	Complainant advised the blast rattled the entire house shaking windows and doors.	EO confirmed blast was within compliance limits.	EO confirmed blast was within compliance limits.
635	8/10/2021	Vibration	Complainant advised they wished to advise the mine that the vibration from the blast could be felt in Werris Creek.	EO confirmed blast was within compliance limits.	EO confirmed blast was within compliance limits.
636	8/10/2021	Vibration	Complainant advised they wished to advise the mine that the vibration from the blast could be felt in Werris Creek.	EO confirmed blast was within compliance limits.	EO confirmed blast was within compliance limits.
637	4/11/2021	Other	Complainant advised of presence of uncontrolled St John's Wort in neighbouring Biodiversity Offset property	Biodiversity Officer notified and targeted weed control program implemented in area	Weeds sprayed as per weed control requirements
638	10/11/2021	Other	Complainant advised of presence of uncontrolled St John's Wort in neighbouring Biodiversity Offset property	Biodiversity Officer notified and targeted weed control program implemented in area	Weeds sprayed as per weed control requirements
639	12/01/2022	Blast	Complainant wished to advise the mine that the vibration from the blast could be felt in Werris Creek.	EO confirmed blast was within compliance limits.	No further follow-up actions
640	31/01/2022	Blast/Light	Complainant wished to advise the mine that the vibration from the blast could be felt in Werris Creek. And lighting could be seen at night.	EO confirmed blast was within compliance limits. Lighting plant inspection.	Lighting Plant Inspection. EO advised blast was within compliance limits and emailed a copy of the results to the complainant

7.0 GENERAL

Please feel free to ask any questions in relation to the information contained within this document during Item 7 of the meeting agenda.

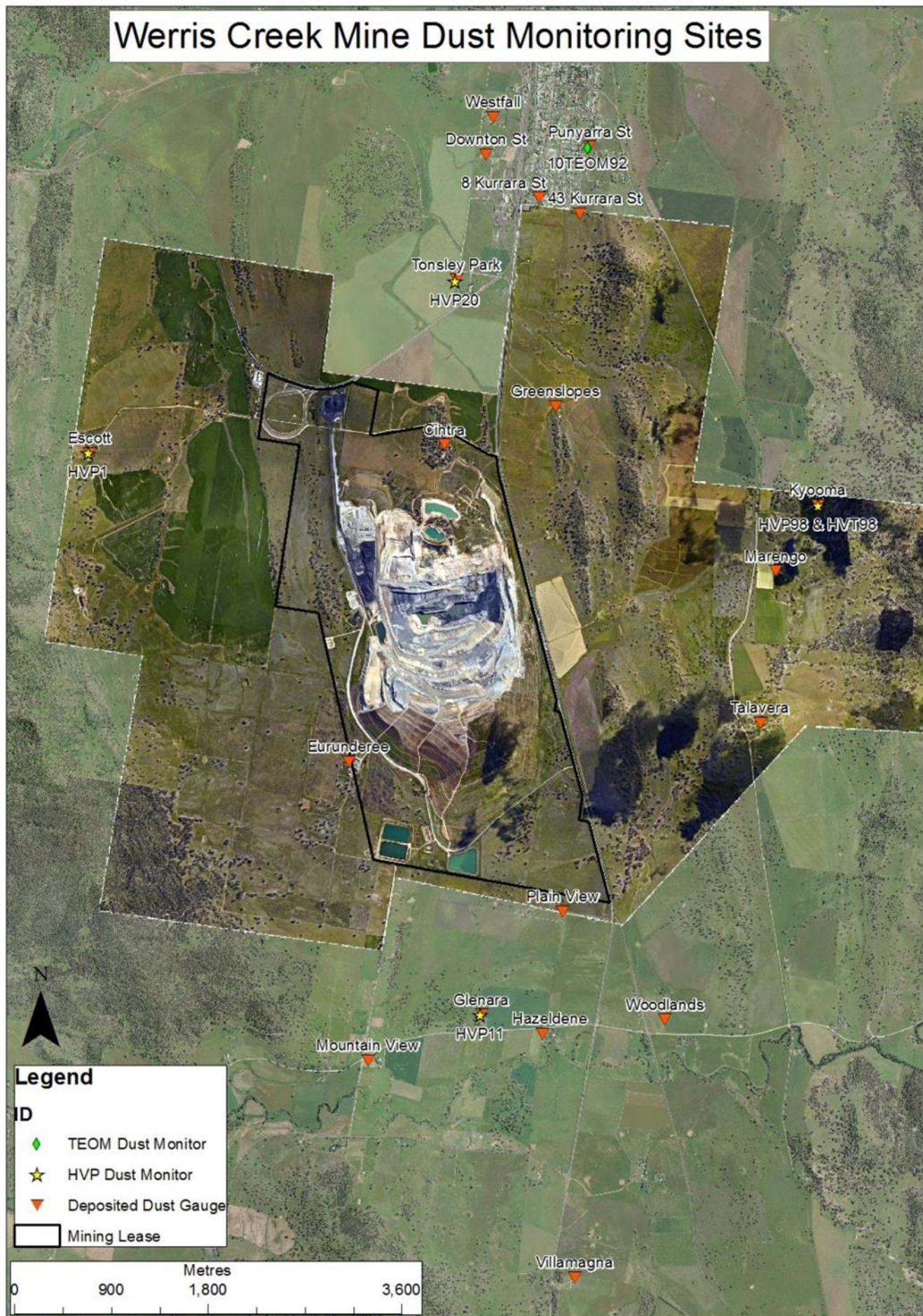


Figure 1 – WCC Dust Monitoring Locations

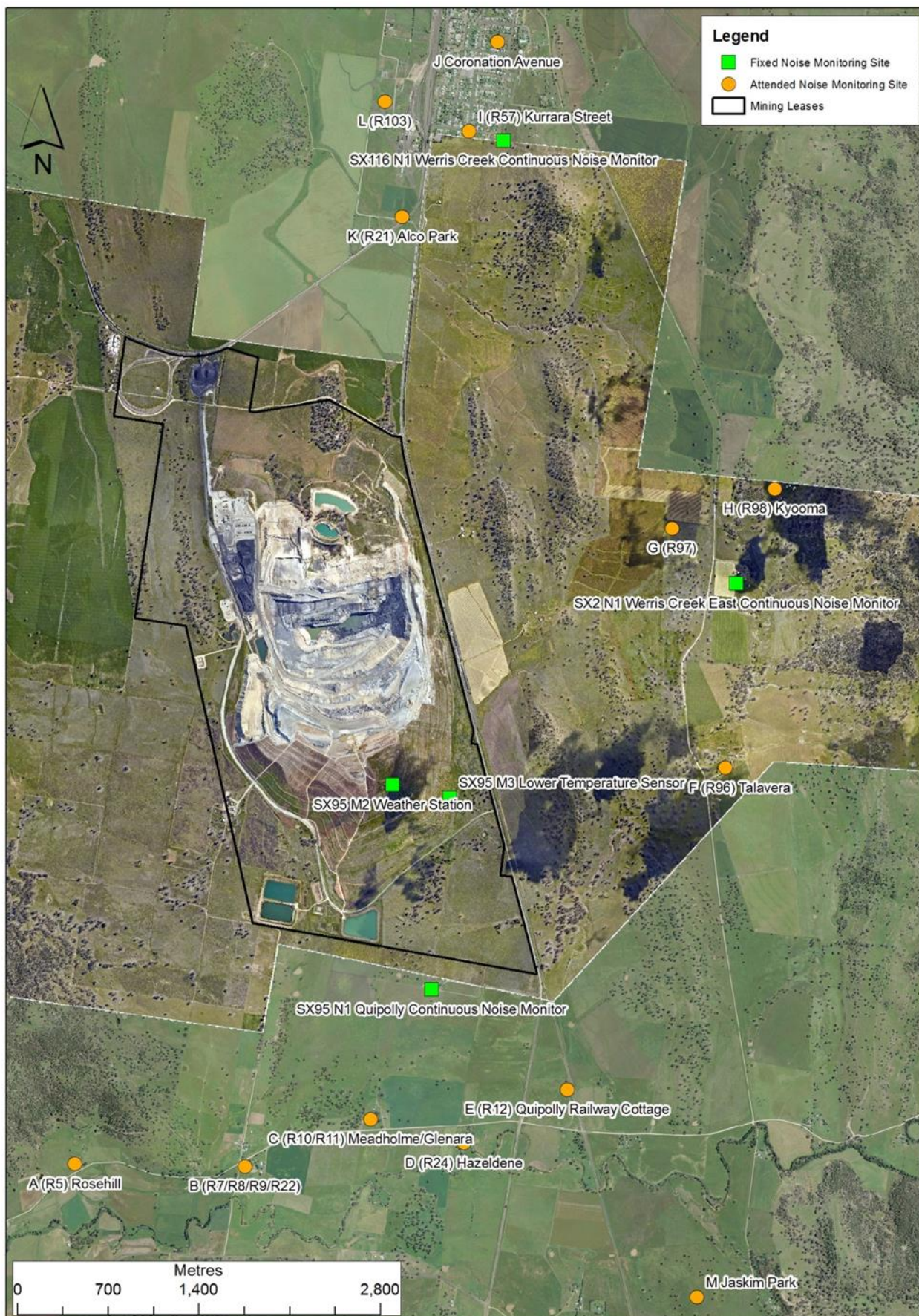


Figure 2– WCC Noise Monitoring Locations

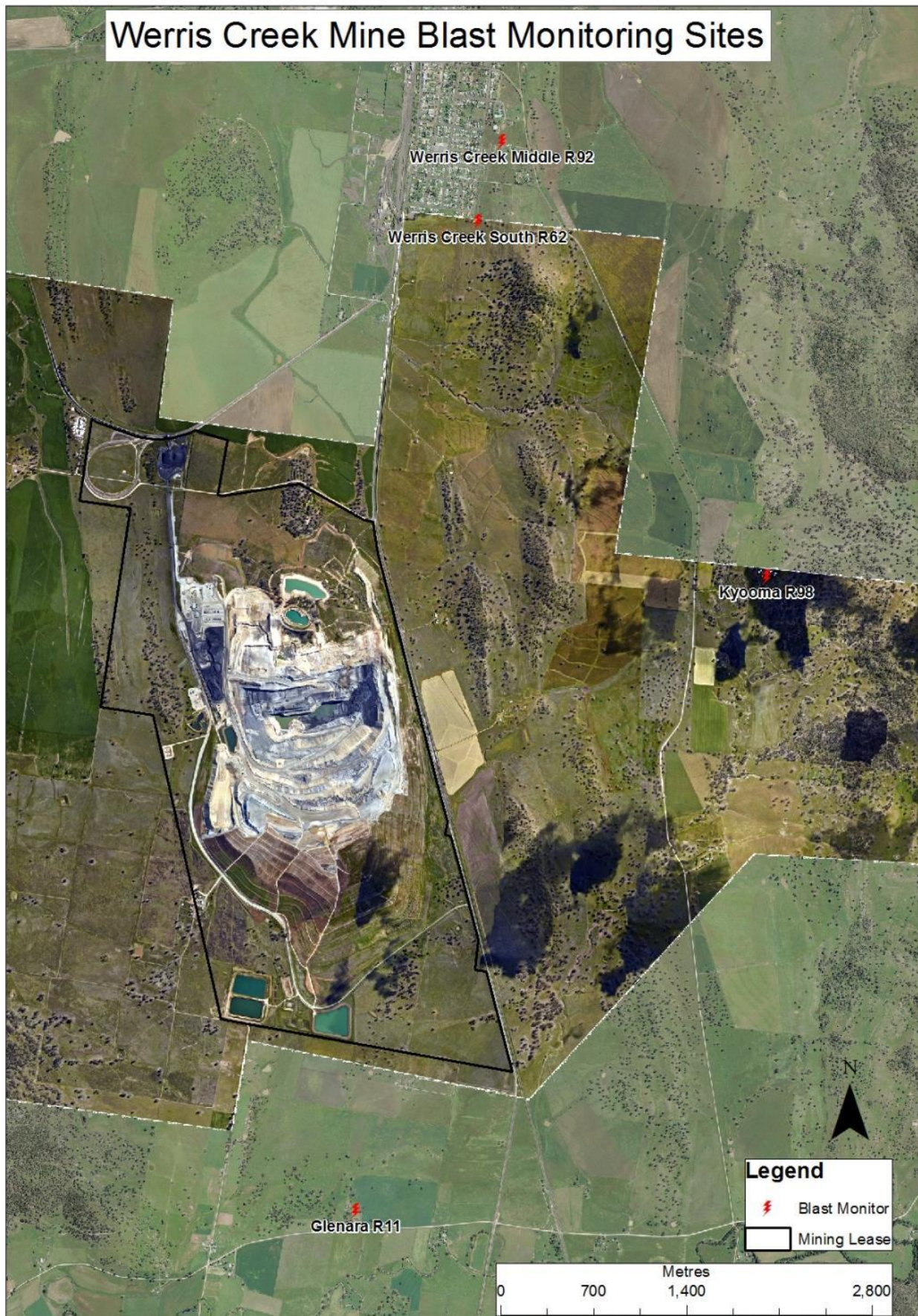


Figure 3 – WCC Blast Monitoring Locations

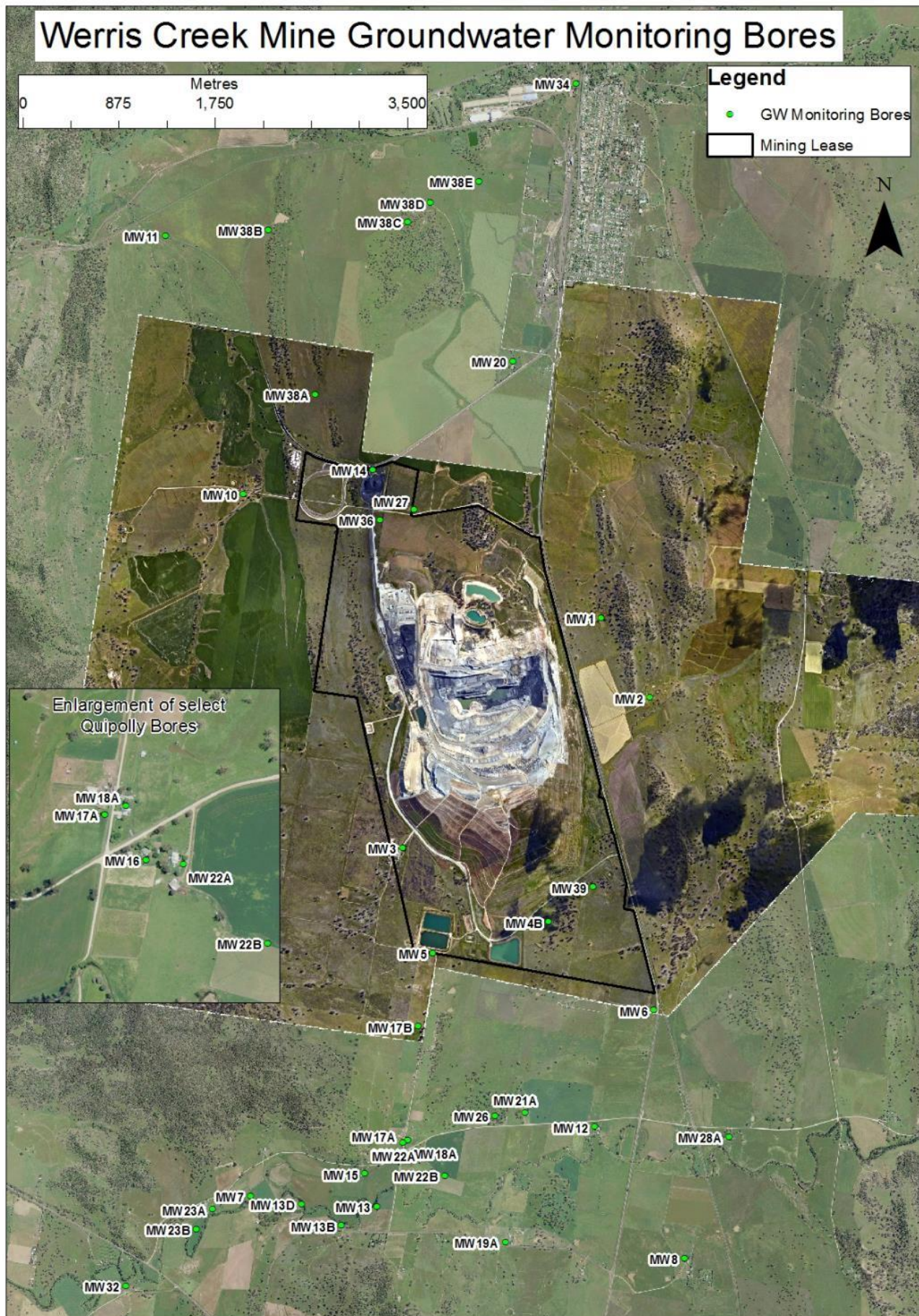


Figure 4 – WCC Groundwater Monitoring Locations



Figure 5 – WCC Surface Water Monitoring Locations

WERRIS CREEK COAL COMMUNITY CONSULTATIVE COMMITTEE
59th Meeting of the Committee held at the Werris Creek Bowling Club on
Wednesday, 13 July 2022 at 9:30AM

Meeting opened at 9:40AM.

Record of attendance

Michael Silver OAM	Independent Chairperson
Jane Bradford OAM	Independent Minute Taker
Megan Martin	Werris Creek Coal - Environmental Superintendent
Harry Mills	Whitehaven Coal - Environmental Officer
Murray O'Keefe	Whitehaven Coal – Operations Manager
Huw Morgan	Whitehaven Coal – Group Manager Property and Water
Jacki Scott	Whitehaven Coal – Manager Community Partnerships and Investment
Lindsay Bridge	Community Representative
Noel Taylor	Community Representative
Col Stewart OAM	Community Representative

The Chair noted that Councillor Terry Cohen had been appointed by Liverpool Plains Shire as its representative to the Werris Creek Coal CCC. However, Cr Cohen was not in attendance. The Chair indicated he would contact Liverpool Plains Shire Council regarding Councillor Cohen's future attendance.

Apology

Darren Swain Whitehaven Coal – General Manager Community Engagement

Non-Attendance

Mike Lomax	Community Representative
James O'Brien	Community Representative

2 Acknowledgement of Country

The Chair acknowledged the Traditional Owners of the land on which the meeting is being held and recognised their continuing connection to the land, water and culture, paying respects to their Elders past, present and emerging.

3 Declaration of Pecuniary or Other Interests –

The Chair advised that his meeting expenses are borne by the proponent.
Other members - Nil

4 Minutes of the previous 58th meeting held on 9 March 2022 were approved on 3 April 2022

5 Matters Arising

Water Management – Huw Morgan, Group Manager Property and Water provided an overview on water management at the mine to the Committee.

- Mr Morgan advised that the residual rainfall mass trend was decreasing between 2015 and 2019. The drought broke in 2020 and the residual rain mass is now positive. An increase in ground water bore levels has resulted. Alluvial bores have also returned to higher levels.
- Noel Taylor advised that during the drought, particularly during 2018-19, locals had no water, but noted the mine was still pumping watering, despite bore levels dropping. Mr Taylor indicated that two short bores on his property – one at 22 feet deep and the other at 20 feet deep did run dry but have partially recovered, although the levels are only about 50% of what they were before mining started and the period of the drought. He advised that he has just de-commission the two bores and to re-start them will come at a cost. He added that he has been unable to irrigate since 2015 and is still unable to do so.
- In response, Mr Morgan commented that if the mine was impacting the bores, then they would not have recovered to the extent they have. He added that the data from 2020/21 is invaluable. Whitehaven Coal is happy to come and meet Mr Taylor and discuss the results in more detail.

6 Environmental Monitoring Report from 1 February to 31 May 2022

Megan Martin went through the Report with the following comment:

5.2 Seasonal normal – Basically no water complaints over the past quarter – too much rather than too little rain.

7 General Business

- Megan Martin confirmed that community planning was going ahead with the Forward Plan and the new Rehabilitation Management Plan should be available by end of August.
- Harry Mills confirmed that over 15,000 appropriate trees have now been planted plus native grasses. The wallabies have started to return to the top of the mound as have birds and other native animals. The past two and a half years of good seasons has made a remarkable difference to the landscape which is thriving. Now expanding rehabilitation areas as the mine is getting closer to closure. Murray O'Keefe added that the Resource Regulator is less about approval – more about compliance and will be checking the mine more closely as closure approaches in January 2024.

7.1 Life of Mine Up-date

- Murray O'Keefe confirmed that Werris Creek Coal is still aiming for January 2024 as the completion of active mining – no changes at this stage. He added that there are four strips left to mine – Strip 20 is almost completed with Strips 21 and 22 to be completed by June 2023, then challenging work to complete Strip 24 by January 2024. It is expected that last coal to be despatched by train will occur towards the end of March 2024. He advised that staff are already being trained for future roles. Mr O'Keefe indicated that it may be expected there will be more rail traffic throughout 2023.

Community Aspects - Staff

- Whitehaven Coal is keen to transfer as many trained staff as possible to other areas.
- Some staff may leave now or in the near future.
- Some staff wish to stay to the very end and make final decisions closer to that deadline.

7.2 WCC Lodgement of Modification to existing approval (MOD5)

Proceeding as anticipated at this stage

7.4 WHC Sponsorship and Donations Process

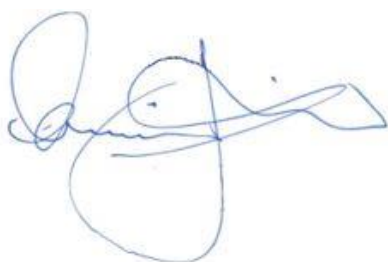
- Jacki Scott confirmed that advertisements would be going into the Quirindi and Gunnedah papers for Round 3 this week seeking applications for sponsorship.
- Noel Taylor questioned why sponsorship was granted to the Murrurundi Pony Club – suggesting this organisation is based in the Hunter Valley? *Response:* Whitehaven Coal employees have family members who are members of this pony club.

Dates for Applications

Application Rounds	Round 1	Round 2	Round 3	Round 4
Applications open	1 January	1 April	1 July	1 October
Applications close	31 January	30 April	31 July	31 October
Successful applicants contacted	1 March	1 June	1 September	1 December

Next meeting Wednesday, 9 November 2022 at 9:30am – Venue - Werris Creek Bowling Club.

Meeting closed at 10:50AM



Michael J Silver OAM
Independent Chairperson

9 August 2022



WERRIS CREEK COAL PTY LTD

QUARTERLY ENVIRONMENTAL MONITORING REPORT

February – May 2022

This Environmental Monitoring Report covers the period 1st February to 31st May 2022 for the Werris Creek Coal Mine Community Consultative Committee.

The report includes environmental monitoring results from the on-site Weather Station, Air Quality, Noise, Blasting, Surface Water, Groundwater and Discharge Water Quality together with any community complaints received and general details on site environmental matters.

Note: Elevated monitoring results above the relevant monitoring criteria are highlighted in **yellow**.

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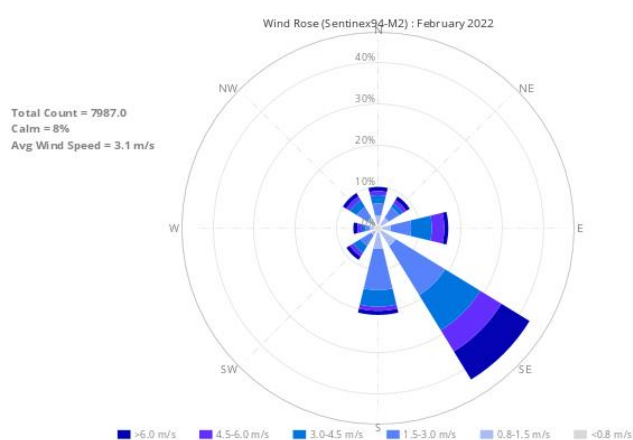
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1.0 METEOROLOGY

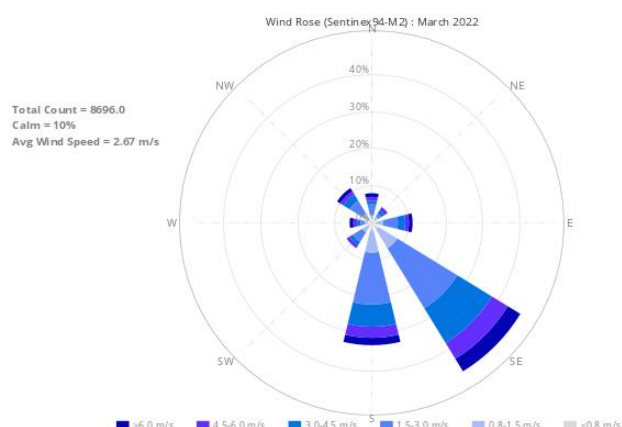
1.1 WEATHER STATION

Werris Creek Coal (WCC) collects meteorological data from the onsite weather station located on the top level of the overburden emplacement. The following table summarises rainfall data for the last four months. The monthly rainfall total in March & May 2022 was above the historical average and below during February & April 2022. Directional wind data, presented in the wind-rose figures below, indicate the prevailing wind direction was predominantly from the south-east in February through May 2022 and from the south to south-east in May 2022.

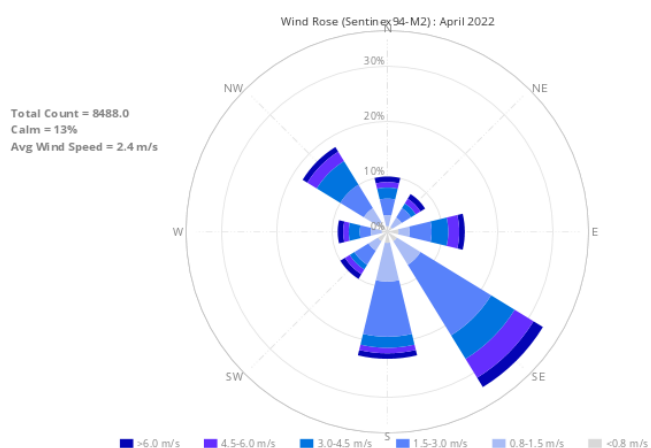
Month	Rainfall (mm)		
	Onsite	Historical Average	2022 Total
February 2022	52.4	69.2	112.8
March 2022	105.8	66.1	218.6
April 2022	21.8	30.9	240.4
May 2022	75.8	37.0	316.2



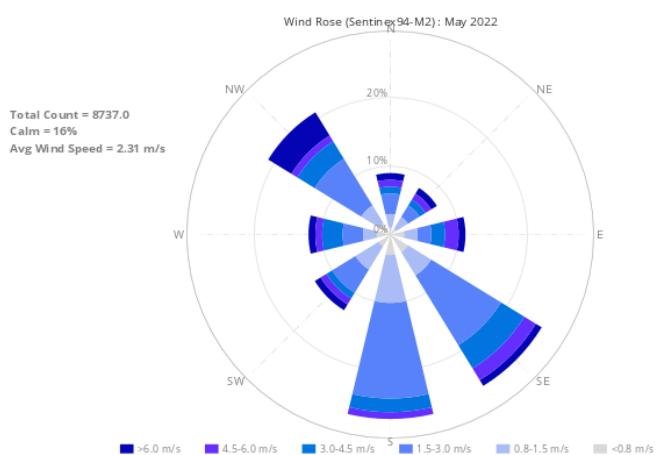
FEBRUARY 2022



MARCH 2022



APRIL 2022



MAY 2022

2.0 AIR QUALITY

2.1 HVAS (PM₁₀) and TEOM (PM₁₀ & PM_{2.5})

WCC operates five High Volume Air Samplers (HVAS), four sites measuring particulate matter less than 10 microns (PM₁₀) and one site measuring total suspended particulate (TSP) matter. HVAS sampling is scheduled every 6 days for a 24-hour run period in accordance with Environment Protection Authority (EPA) guidelines. Results are reported in micro grams per cubic metre (µg/m³) of air sampled. In addition, WCC operates a Tapered Element Oscillating Microbalance (TEOM) monitor in Werris Creek measuring real time PM₁₀ and PM_{2.5} (particulate matter less than 2.5 microns) dust levels. Dust monitoring locations are identified in **Figure 1**.

2.1.1 Monitoring Data Results

The average results for the last four months are provided in the table below.

MONITORING LOCATION	24Hr Maximum (µg/m ³)	FEB 2022 (µg/m ³)	MAR 2022 (µg/m ³)	APR 2022 (µg/m ³)	MAY 2022 (µg/m ³)	2022 AVG (µg/m ³)	CRITERIA (µg/m ³)	
							Annual	24hr
PM _{2.5} – TEOM92 “Werris Creek”	10.8	4.9	2.4	2.6	1.1	3.4	-	-
PM ₁₀ – TEOM92 “Werris Creek”	18.6	9.5	7.3	6.8	5.1	7.7	30	50
PM ₁₀ – HVP20 “Tonsley Park”	25.3	6.8	12.5	5.0	7.3	7.7	30	50
PM ₁₀ – HVP1 “Escott”	13.3	4.9	8.0	2.2	3.6	4.8	30	50
PM ₁₀ – HVP11 “Glenara”	30.8	8.1	10.3	11.5	7.7	9.2	30	50
PM ₁₀ – HVP98 “Kyooma”	13.2	4.4	6.9	1.8	3.8	4.3	30	50
TSP – HVT98 “Kyooma”	30.0	11.3	16.5	6.1	10.9	11.1	90	-

Yellow Bold – Elevated dust level.

2.1.2 Discussion - Compliance / Non Compliance

All TSP, PM₁₀ and PM_{2.5} dust results were within criteria during the period.

2.2 WERRIS CREEK MINE DEPOSITED DUST

Deposited dust monitoring measures particulate matter greater than 30 microns in size that readily settles out of the air related to visual impact. Dust deposition is monitored at 18 locations around WCC. Sampling is scheduled monthly in accordance with EPA guidelines and results are reported as grams per square metre per month (g/m².month). Dust monitoring locations are identified in **Figure 1**.

2.2.1 Monitoring Data Results

The results for the last four months are provided in the table below.

MONITORING LOCATION	FEB 2022 (g/m ² /month)	MAR 2022 (g/m ² /month)	APR 2022 (g/m ² /month)	MAY 2022 (g/m ² /month)	2022 AVERAGE (g/m ² /month)	Annual Criteria (g/m ² /month)
DG1 "Escott"	1.8	1.1	0.6	1.0	1.2	4.0
DG2 "Cintra"	2.6	5.3	6.1*	3.5	3.8	4.0
DG3 "Eurunderee"	0.8	0.5	0.8	0.9	0.8	4.0
DG5 "Railway View"	2.1	1.2	0.7	1.6	1.6	4.0
DG9 "Marengo"	2.4	0.9	0.5	1.5	1.5	4.0
DG11 "Glenara"	0.6	0.1	0.3	1.0	0.8	4.0
DG14 "Greenslopes"	1.1	0.5	0.2	1.5	0.8	4.0
DG15 "Plain View"	0.7	0.9	5.2	1.3	1.8	4.0
DG17 "Woodlands"	1.3	4.8*	0.9	1.8	1.4	4.0
DG20 "Tonsley Park"	1.1	2.4	1.2	1.4	1.6	4.0
DG22 "Mountain View"	0.8	0.6	0.4	1.4	0.9	4.0
DG24 "Hazeldene"	4.1	0.7	1.6	1.7	2.1	4.0
DG34 8 Kurrara St	1.0	0.4	0.6	1.2	0.7	4.0
DG62 Werris Creek South	1.0	2.1	0.5	0.7	1.0	4.0
DG92 Werris Creek Centre	0.9	0.1	0.2	0.5	0.4	4.0
DG98 "Kyooma"	1.2	0.2	0.1	1.0	1.0	4.0
DG101 "Westfall"	1.4	1.0	0.4	1.6	1.2	4.0
DG103 West Street	2.2	0.4	0.9	2.9	1.8	4.0

* - sample contaminated with excessive organic matter (>50%) from non-mining source (i.e., bird droppings and insects); # - indicates sample is contaminated from a Non-Werris Creek Coal dust source; **Yellow Bold** – Elevated dust level; NS - Not Sampled; Damage – stand and bottle vandalised

2.2.2 Discussion - Compliance / Non-Compliance

All monthly dust deposition gauge results were below the annual criteria of 4.0 g/m²/month throughout the period, with the exception of:

- DG24 (Hazeldene) had an anomalous high result in Feb 2022. The rolling average remained below criteria. Deposited dust levels remained low at all other nearby gauges and average wind rose diagrams show wind blowing in an opposite direction. This evidence indicates a localised source of dust, unrelated to activities at Werris Creek Coal Mine.
- DG15 (Plainview) had an anomalous high result in April 2022. The rolling average remained below criteria. Deposited dust levels remained low at all other nearby gauges and average wind rose diagrams show wind blowing in an opposite direction. This evidence indicates a localised source of dust, unrelated to activities at Werris Creek Coal Mine.
- DG2 (Cintra) had an anomalous high result in March 2022. The rolling average remained below criteria.

2.3 AIR QUALITY COMPLAINTS

There were no dust complaints recorded during the period.

3.0 NOISE

3.1 OPERATIONAL NOISE

Monthly attended noise monitoring is undertaken representative of the following 16 properties from 13 monitoring points below. Attended noise monitoring was undertaken twice for either 60 minutes at privately owned properties or 15 minutes at properties with private agreements; representative of the day period and the evening/night period.

3.1.1 Monitoring Data Results

The WCC operation's noise level (not ambient noise) results for the last four months are outlined in the tables below. Noise monitoring locations are identified in **Figure 2**.

24th Thursday, February 2022

Location		Day dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min	Evening/Night dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min
A	"Rosehill" R5	Inaudible#	35	Inaudible	35
B	West Quipolly (R7*, R8*, R9* & R22*)	Inaudible	40	Inaudible	40
C	Central Quipolly (R10*, R11*)	Inaudible	40	Inaudible	40
D	"Hazeldene" R24	Inaudible	37	Inaudible#	37
E	"Railway Cottage" R12	Inaudible#	38	Inaudible	38
F	"Talavera" R96	Inaudible#	38	Inaudible#	37
H	"Kyooma" R98	Inaudible	35	Inaudible#	35
I	Kurrara St, WC R57	Inaudible#	35	Inaudible	35
J	Coronation Ave, WC	Inaudible#	35	Inaudible	35
K	Alco Park (R21*)	Inaudible#	40	Inaudible#	40
L	West St, WC (R103)	Inaudible#	35	Inaudible#	35

WC – Werris Creek; * - Private agreement in place with resident; **Yellow Bold** – Elevated noise; # Adverse weather with wind >3m/s, temperature inversions >+12°C/100m or >2m/s and >0°C/100m; 1 – R22 criteria is 36 dB(A) L_{eq} 15min while R9 is 37 dB(A) L_{eq} 15min

NM- Denotes Not Measurable. If site only noise is noted as NM, this means some noise from the source of interest was audible at low-levels, but could not be quantified

24th Thursday, March 2022

Location		Day dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min	Evening/Night dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min
A	"Rosehill" R5	Inaudible#	35	Inaudible	35
B	West Quipolly (R7*, R8*, R9* & R22*)	Inaudible#	40	22	40
C	Central Quipolly (R10*, R11*)	20#	40	23	40
D	"Hazeldene" R24	Inaudible#	37	Inaudible	37
E	"Railway Cottage" R12	Inaudible#	38	Inaudible	38
F	"Talavera" R96	21#	38	Inaudible	37
H	"Kyooma" R98	22#	35	Inaudible	35
I	Kurrara St, WC R57	Inaudible#	35	Inaudible	35
J	Coronation Ave, WC	Inaudible#	35	Inaudible	35
K	Alco Park (R21*)	22#	40	21	40
L	West St, WC (R103)	Inaudible#	35	Inaudible	35

WC – Werris Creek; * - Private agreement in place with resident; **Yellow Bold** – Elevated noise; # Adverse weather with wind >3m/s, temperature inversions >+12°C/100m or >2m/s and >0°C/100m; 1 – R22 criteria is 36 dB(A) L_{eq} 15min while R9 is 37 dB(A) L_{eq} 15min

NM- Denotes Not Measurable. If site only noise is noted as NM, this means some noise from the source of interest was audible at low-levels, but could not be quantified

28th Thursday, April 2022

Location		Day dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min	Evening/Night dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min
A	"Rosehill" R5	Inaudible	35	Inaudible	35
B	West Quipolly (R7*, R8*, R9* & R22*)	24	40	Inaudible	40
C	Central Quipolly (R10*, R11*)	Inaudible	40	Inaudible	40
D	"Hazeldene" R24	Inaudible	37	Inaudible	37
E	"Railway Cottage" R12	Inaudible	38	Inaudible	38
F	"Talavera" R96	Inaudible	38	Inaudible	37
H	"Kyooma" R98	Inaudible	35	Inaudible	35
I	Kurrara St, WC R57	Inaudible	35	Inaudible	35
J	Coronation Ave, WC	Inaudible	35	Inaudible	35
K	Alco Park (R21*)	Inaudible	40	Inaudible	40
L	West St, WC (R103)	Inaudible	35	Inaudible	35

WC – Werris Creek; * - Private agreement in place with resident; **Yellow Bold** – Elevated noise; # Adverse weather with wind >3m/s, temperature inversions >+12°C/100m or >2m/s and >0°C/100m; 1 – R22 criteria is 36 dB(A) L_{eq} 15min while R9 is 37 dB(A) L_{eq} 15min

NM- Denotes Not Measurable. If site only noise is noted as NM, this means some noise from the source of interest was audible at low-levels, but could not be quantified

10th Tuesday, May 2022

Location		Day dB(A) L _{eq} 15min	Criteria dB(A) L _{eq} 15min	Evening/Night dB(A) L _{eq} 15min	Criteria dB(A) L _{eq} 15min
A	"Rosehill" R5	Inaudible#	35	Inaudible	35
B	West Quipolly (R7*, R8*, R9* & R22*)	Inaudible#	40	Inaudible	40
C	Central Quipolly (R10*, R11*)	Inaudible#	40	Inaudible	40
D	"Hazeldene" R24	Inaudible#	37	Inaudible	37
E	"Railway Cottage" R12	Inaudible#	38	Inaudible	38
F	"Talavera" R96	Inaudible#	38	Inaudible	37
H	"Kyooma" R98	Inaudible#	35	Inaudible	35
I	Kurrara St, WC R57	Inaudible#	35	Inaudible	35
J	Coronation Ave, WC	Inaudible#	35	Inaudible	35
K	Alco Park (R21*)	Inaudible#	40	23	40
L	West St, WC (R103)	Inaudible#	35	21	35

WC – Werris Creek; * - Private agreement in place with resident; **Yellow Bold** – Elevated noise; # Adverse weather with wind >3m/s, temperature inversions >+12°C/100m or >2m/s and >0°C/100m; 1 – R22 criteria is 36 dB(A) L_{eq} 15min while R9 is 37 dB(A) L_{eq} 15min

NM- Denotes Not Measurable. If site only noise is noted as NM, this means some noise from the source of interest was audible at low-levels, but could not be quantified

3.1.2 Discussion - Compliance / Non-Compliance

Noise from Werris Creek Coal Mine was inaudible at a high percentage of the monitoring sites during the quarter. Throughout the period, Werris Creek Coal Mine adjusted mining operations and shut down equipment at various times to reduce noise generation potential in response to noise levels measured at the real time noise monitors.

3.2 Noise complaints

There were no noise complaints recorded during the period.

4.0 BLASTING

During the reporting period there was a total of 22 blasts fired by WCC with monitoring of each blast undertaken at "Glenara", "Kyooma", "Werris Creek South" and "Werris Creek Mid". Compliance limits for blasting overpressure is 115dB(L) (and up to 120dB(L) for only 5% of blasts) and vibration is 5mm/s (and up to 10mm/s for only 5% of blasts). Blast monitoring locations are identified in **Figure 3**.

4.1 BLAST MONITORING**4.1.1 Monitoring Data Results**

The summary tables of blasting results over the last four months are provided below.

February 2022		"Glenara" R11		"Kyooma" R98		Werris Creek South R62		Werris Creek Mid R92	
		mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)
Monthly Average		0.11	103.2	0.89	100.4	0.54	103.7	0.30	98.2
Monthly Maximum		0.14	113.3	1.20	107.9	0.76	109.4	0.41	103.5
Annual Average		0.15	103.1	1.07	100.3	0.58	103.1	0.42	98.0
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	Rolling 12- mo Average	0.00%	1.72%	0.00%	0.00%	0.00%	1.72%	0.00%	0.00%
	YTD	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

March 2022		"Glenara" R11		"Kyooma" R98		Werris Creek South R62		Werris Creek Mid R92	
		mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)
Monthly Average		0.08	94.1	0.68	99.3	0.36	102.3	0.26	96.4
Monthly Maximum		0.17	101.5	1.81	108.0	0.52	106.3	0.44	104.1
Annual Average		0.13	100.1	0.94	100.0	0.51	102.9	0.37	97.5
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	Rolling 12-mo Average	0.00%	1.67%	0.00%	0.00%	0.00%	1.67%	0.00%	0.00%
	YTD	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

April 2022		"Glenara" R11		"Kyooma" R98		Werris Creek South R62		Werris Creek Mid R92	
		mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)
Monthly Average		0.14	102.3	0.63	100.8	0.45	98.8	0.22	96.2
Monthly Maximum		0.18	103.7	0.70	103.0	0.60	102.4	0.30	101.6
Annual Average		0.13	100.6	0.86	100.2	0.49	101.8	0.33	97.1
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	Rolling 12-mo Average	0.00%	1.69%	0.00%	0.00%	0.00%	1.69%	0.00%	0.00%
	YTD	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

May 2022		"Glenara" R11		"Kyooma" R98		Werris Creek South R62		Werris Creek Mid R92	
		mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)
Monthly Average		0.12	103.1	0.73	103.4	0.47	103.1	0.36	94.4
Monthly Maximum		0.17	107.1	1.14	107.7	0.71	106.6	0.57	100.9
Annual Average		0.13	101.1	0.83	100.8	0.49	102.1	0.34	96.6
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	Rolling 12-mo Average	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	YTD	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Yellow – overpressure >115dB(L) or Werris Creek vibration >5.0mm/s.

4.1.2 Discussion - Compliance / Non-Compliance

All blasts over the period complied with maximum licence limits (120dB(L) and 10mm/s) as well as the 95th percentile limits (115dB(L) and 5mm/s).

4.2 BLAST COMPLAINTS

There were no blast complaints during the period regarding blast vibration or overpressure.

5.0 WATER

The groundwater monitoring program monitors groundwater levels bi-monthly and groundwater quality six monthly. Surface water monitoring is undertaken quarterly.

5.1 GROUND WATER

Groundwater monitoring is undertaken to identify if there are any impacts on groundwater quality and water levels as a result of the mining operations. WCC monitors approximately 38 groundwater wells/bores and piezometers in the key aquifers surrounding WCC including Werrie Basalt (next to WCC and further afield) and Quipolly Creek Alluvium.

Groundwater level surveys were completed between 8-24 March 2021 and also 9-12 May 2022. Groundwater monitoring locations are identified in **Figure 4**.

5.1.1 Monitoring Data Results

A summary of groundwater monitoring results has been provided below.

Site		March-22	
		mbgl	%
Werrie Basalt near WCC	MW1	Dry	
	MW2	33.18	14%
	MW3	17.60	4%
	MW4B	16.56	4%
	MW5	9.73	1%
	MW6	15.20	2%
	MW27*	52.05	1%
	MW36A	18.35	-6%
	MW36B	18.33	-6%
Werrie Basalt	MW8*	No access	
	MW10	8.78	-3%
	MW14	14.39	-6%
	MW17B*	13.78	-34%
	MW19A*	Pump over bore	
	MW20*	19.27	1%
	MW38A	9.81	-9%
	MW38B*	8.74	-2%
	MW38C*	20.70	3%
	MW38E*	No access	
	MW41	4.73	-3%
	MW43	4.35	-4%
# ¹	MW24A*	12.14	-1%
	MW29*	10.09	-4%
Quipolly Alluvium	MW12*	8.63	-20%
	MW13*	4.76	-6%
	MW13B*	3.20	-6%
	MW13D*	4.40	-10%
	MW15*	No Access	
	MW16*	3.96	-1%
	MW17A*	3.78	-20%
	MW18A*	3.35	-5%
	MW21A*	5.00	-7%
	MW22A*	4.22	-9%
	MW22B*	4.11	-8%
	MW23A*	4.02	-16%
	MW23B*	No access	
	MW26B*	4.18	0%
	MW28A*	6.67	-23%
	MW32*	Pump over bore	
	MW40	4.70	-3%
	MW42	4.26	-1%
# ²	MW34*	8.78	-1%

Site		May-22	
		mbgl	%
Werrie Basalt near WCC	MW1	Dry	
	MW2	33.46	-1%
	MW3	17.34	1%
	MW4B	16.18	2%
	MW5	9.62	1%
	MW6	14.92	2%
	MW27*	51.84	0%
	MW36A	18.86	-3%
	MW36B	18.84	-3%
Werrie Basalt	MW8*	No access	
	MW10	9.19	-4%
	MW14	14.74	-2%
	MW17B*	11.30	22%
	MW19A*	Pump over bore	
	MW20*	18.83	2%
	MW38A	10.42	-6%
	MW38B*	8.90	-2%
	MW38C*	20.67	0%
	MW38E*	10.65	-22%
	MW41	4.94	-4%
	MW43	4.45	-2%
# ¹	MW24A*	12.27	-1%
	MW29*	10.46	-4%
Quipolly Alluvium	MW12*	8.93	-3%
	MW13*	4.60	3%
	MW13B*	3.18	1%
	MW13D*	4.36	1%
	MW15*	No Access	
	MW16*	4.04	-2%
	MW17A*	3.60	5%
	MW18A*	3.42	-2%
	MW21A*	5.47	-9%
	MW22A*	4.22	0%
	MW22B*	4.28	-4%
	MW23A*	3.73	8%
	MW23B*	No access	
	MW26B*	4.55	-8%
	MW28A*	8.33	-20%
	MW32*	Pump over bore	
	MW40	4.91	-4%
	MW42	4.40	-3%
# ²	MW34*	8.91	-1%

mbgl – meters below ground level is the distance in meters from top of bore to groundwater surface; **Orange** – Change decrease; **Green** – change increase or no change; * - Indicates bore is used for water extraction unrelated to WCC (i.e. stock and domestic or irrigation). #¹ – Werrie Basalt in the Black Soil Gully valley to east of Werris Creek Mine. #² - Werris Creek Alluvium.

5.1.2 Discussion - Compliance / Non-Compliance

Measured groundwater levels in the Werrie Basalt and Quipolly Alluvium aquifer indicate an overall decrease in water levels during March 2022 and May 2022, although some locations were noted as having a slight increase.

5.2 SURFACE WATER

Surface water monitoring is undertaken in local creeks offsite as well as from discharge point dirty water dams to monitor for potential water quality issues. Quarterly surface water monitoring was undertaken 7th - 8th February 2022 and 25th - 26th May 2022. Surface water monitoring locations are identified in **Figure 5**.

5.2.1 Monitoring Data Results

Summary of surface water quality monitoring results has been provided below.

7th & 8th February 2022

Site	pH	EC	TSS	O&G	Change from Previous Quarter or General Comments
ONSITE					
SB2	8.3	376	51	<5	Previously dry (muddy)
SB9	DRY	DRY	DRY	DRY	Previously low now dry
SB10	7.84	254	37	<5	Remained low water level
SB18	7.78	217	105	<5	Remained low water level
OFFSITE					
QCU	7.43	870	14	<5	Remained flowing
QCD	7.67	866	5	<5	Remained flowing
WCU	7.95	1030	<5	<5	Remained flowing
WCD	8.05	1050	11	<5	Remained flowing

25th & 26th May 2022

Site	pH	EC	TSS	O&G	Change from Previous Quarter or General Comments
ONSITE					
SB2	Dry	Dry	Dry	Dry	Remained dry (muddy)
SB9	Dry	Dry	Dry	Dry	Remained dry
SB10	7.51	1100	<5	<5	Water remains in dam
SB18	Dry	Dry	Dry	Dry	Previously low now dry
OFFSITE					
QCU	7.88	672	7	<5	Remained flowing
QCD	8.06	871	12	<5	Remained flowing
WCU	8.28	1130	<5	<5	Remained flowing
WCD	8.34	1230	22	<5	Remained flowing

pH – measure of acidity/alkalinity; EC – Electrical Conductivity measures salinity; TSS – Total Suspended Solids is a measure of suspended sediment in water (i.e. similar to turbidity); O&G – Oil and Grease measures amount of hydrocarbons (oils and fuels) in water. NA – No Access

5.2.2 Discussion - Compliance / Non-Compliance

Quarterly surface water monitoring was undertaken on February 7th - 8th and May 25th - 26th 2022. All water quality results were within long-term averages and the Site Water Management Plan trigger values.

5.3 SURFACE WATER DISCHARGES

5.3.1 Monitoring Data Results

There were no discharge events in February, March, April and May 2022, except for discharge used for irrigation purposes (Special Frequency 4) indicated in the table below.

Sample Date	Site	pH	EC (mg/L)	O&G (mg/L)
01/02/2022	VWD1 (EPA33)	8.3*	1645*	<5 ⁺
10/02/2022	VWD1 (EPA33)	8.2*	1626*	<5 ⁺
11/04/2022	VWD1 (EPA33)	7.87	1530	<5
04/05/2022	VWD1 (EPA33)	8.01	1560	<5
Criteria		9.0	2000	10

* - Field results; NR – no result (not tested)

⁺ - Oil and Grease measurements taken as part of quarterly water surface sampling (special frequency 3)

pH – measure of acidity/alkalinity; EC – Electrical Conductivity measures salinity; O&G – Oil and Grease measures the amount of hydrocarbons (oils and fuels) in water; **Bold** – indicates results outside criteria

5.3.2 Discussion - Compliance / Non-Compliance

Sampling results were in compliance with WCC's Environmental Protection Licence.

5.4 WATER COMPLAINTS

There were no water release complaints during the period.

6.0 COMPLAINTS SUMMARY

There were no complaints received during the reporting period.

7.0 GENERAL

Please feel free to ask any questions in relation to the information contained within this document during Item 7 of the meeting agenda.

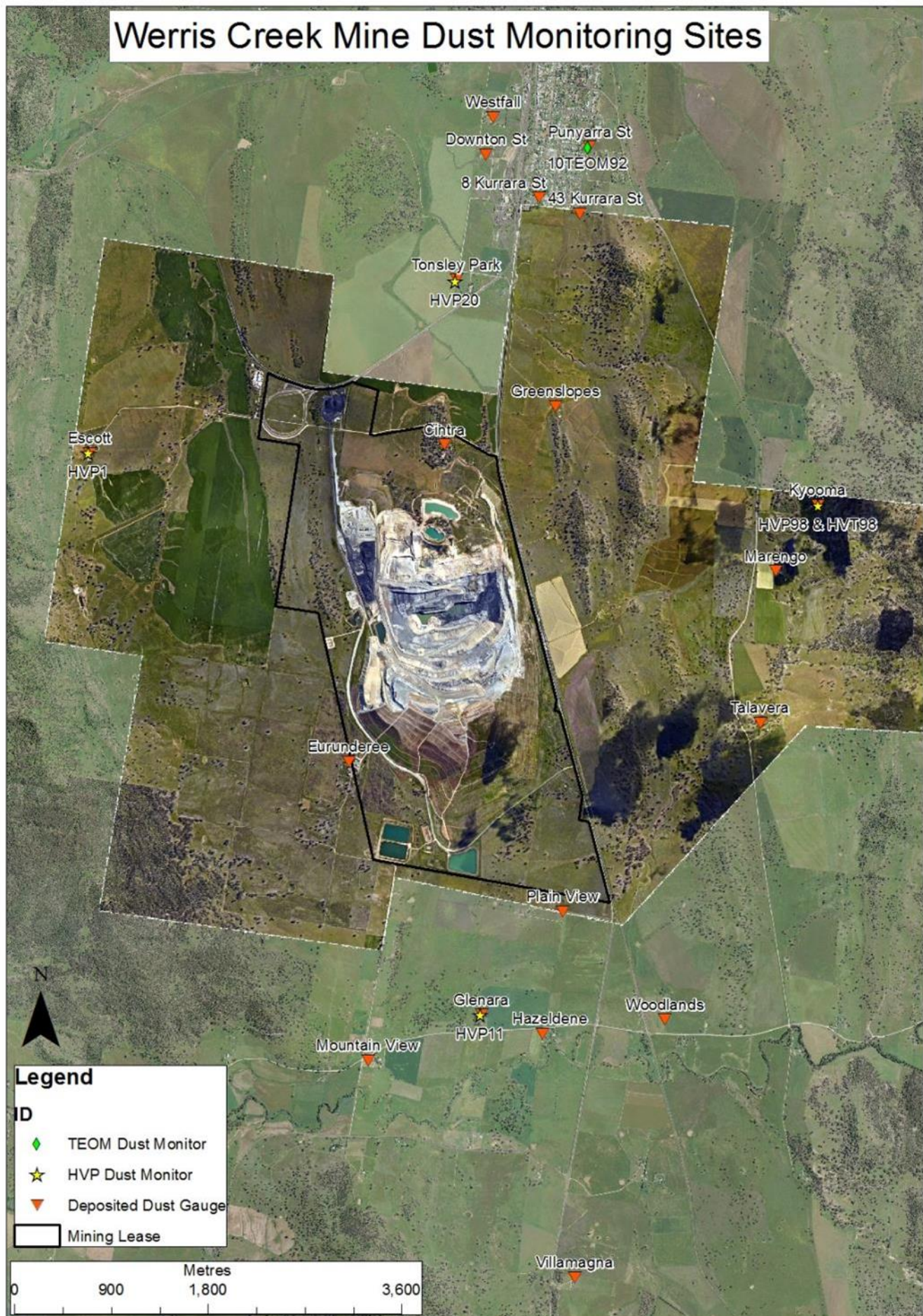


Figure 1 – WCC Dust Monitoring Locations



Figure 2– WCC Noise Monitoring Locations

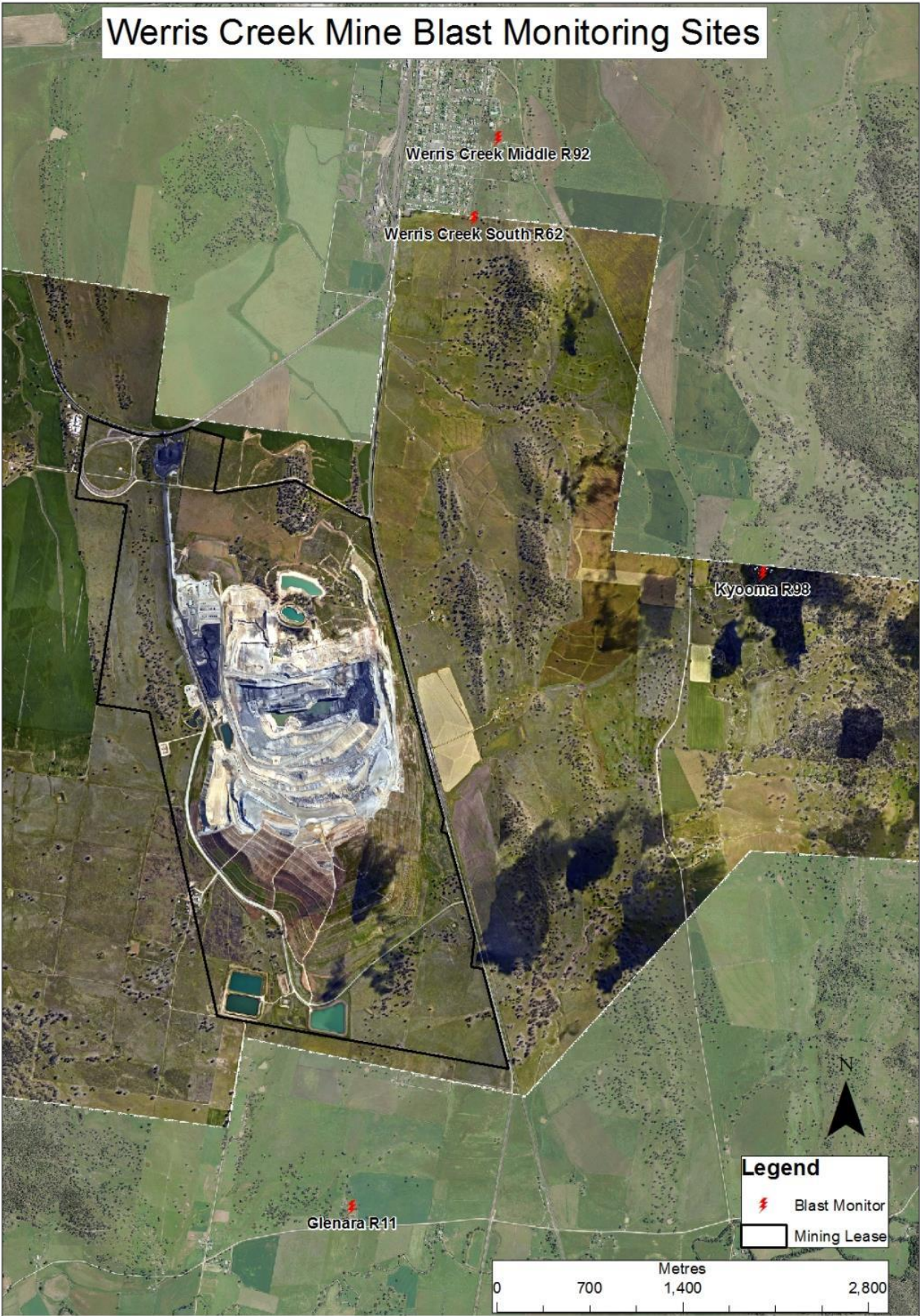


Figure 3 – WCC Blast Monitoring Locations

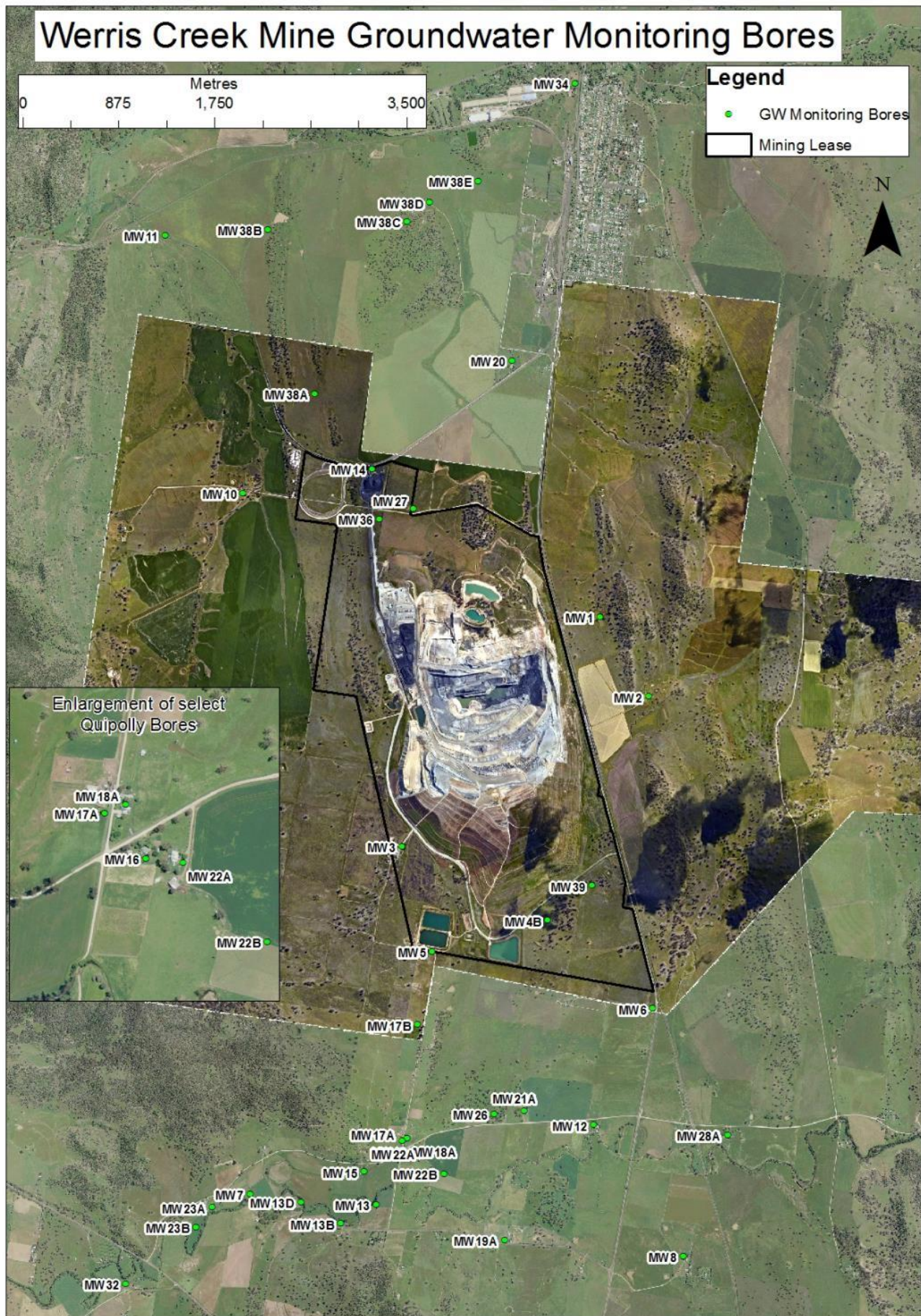


Figure 4 – WCC Groundwater Monitoring Locations



Figure 5 – WCC Surface Water Monitoring Locations

WERRIS CREEK COAL COMMUNITY CONSULTATIVE COMMITTEE
60th Meeting of the Committee held at the Werris Creek Bowling Club on
Wednesday, 9 November 2022 at 9:30AM

Meeting opened at 9:40AM.

Record of attendance

Michael Silver OAM	Independent Chairperson
Jane Bradford OAM	Independent Minute Taker
Megan Martin	Werris Creek Coal - Environmental Superintendent
Harry Mills	Whitehaven Coal - Environmental Officer
Jacki Scott	Whitehaven Coal – Manager Community Partnerships and Investment
James O'Brien	Community Representative
Lindsay Bridge	Community Representative

Apology

Murray O'Keefe	Whitehaven Coal – Operations Manager
Mike Lomax	Community Representative
Col Stewart OAM	Community Representative

Non-Attendance

Noel Taylor	Community Representative
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2 Acknowledgement of Country

The Chair acknowledged the Traditional Owners of the land on which the meeting is being held and recognised their continuing connection to the land, water and culture, paying respects to their Elders past, present and emerging.

3 Declaration of Pecuniary or Other Interests –

The Chair advised that his meeting expenses are borne by the proponent.
Other members - Nil

4 Minutes of the previous 59th meeting held on 13 July 2022 were approved on 9 August 2022

5 Matters Arising - Nil

6 Environmental Monitoring Report from 1 June to 30 September 2022

Harry Mills went through the Report with the following comments:

1.1 Weather Station – The annual rainfall here is 680mm – currently at 571mm since July 2022 still with two months to end of the calendar year.

2.0 Air Quality – Excellent – rain has kept dust levels down.

2.2.1 Monitoring Data Results – one high reading – quick return to normal levels.

3.2 Noise complaints - 11.07.2022 had one complaint from Coronation Street (a new resident) – a night-time complaint – checked and not the mine.

4.2 Blast complaints – 15.07.2022 one complaint – felt vibrations. As the mining moves closer to the township we are making smaller and smaller blasts.

5.4 Water complaints – water samples are varying with the rainfall. However considerable maintenance is required for the roads with so much rain. Water bores are recovering. Lindsay Bridge highlighted the height and flows in Quipoly Creek recently. James O'Brien questioned how the rain is impacting the mine pit? Harry Mills advised that it is being pumped out but is manageable. Mr O'Brien enquired as to what impact this was having on the dam. Mr Mills advised that there has been no irrigation offtake whilst Megan Martin advised that the evaporation fans have been operating.

7 General Business

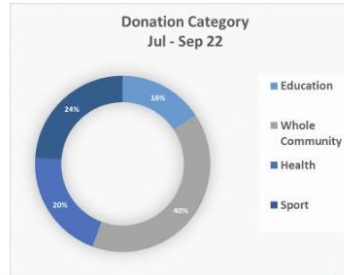
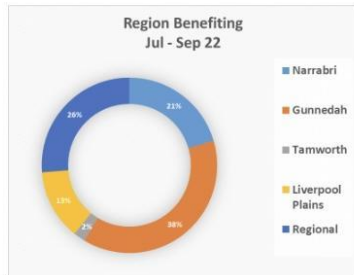
- **Rehabilitation Management Plan:** Megan Martin confirmed that community planning was going ahead with the draft Rehabilitation Management Plan which was emailed to the Committee earlier in October but no responses received to date.
- **Coal Mining:** James O'Brien asked what impact the recent flooding was having on mining operations. Megan Martin advised that it has significantly impacted Whitehaven's Maules Creek and Tarrawonga operations. It has had much less impact at Werris Creek with the pit taking about 12 hours to dry-out. Coal is still being mined at Werris Creek with productivity anticipated to improve over the next six months and the stockpile anticipated to last until the end of 2024.
- **Rail Loop:** James O'Brien enquired as the future of the rail loop. Megan Martin indicated options for the loop are still being considered.
- **Rail Overpass:** James O'Brien noted a proposal for a rail overpass being considered by Liverpool Plains Shire Council. He highlighted various local comments, however no decision on the proposal has yet been made.
- **Tree Planting:** Harry Mills confirmed that over 12,000 appropriate trees have been planted plus filling in where trees / shrubs have died plus native grasses. The wallabies, birds and other native animals have settled in at the top of the mound. However snakes, pigs, foxes and wild deer have also been sighted in the rehabilitation area, so we are monitoring numbers carefully at this stage.

7.1 Whitehaven Coal Sponsorship and Donations Process

- Jacki Scott confirmed that a meeting on Thursday 10 November 2022 would finalise the successful applicants for Round 4 and the successful awardees would be notified on 1 December 2022. The next funding round will open in January 2023.

Community

- Whitehaven continues to support the local Community with donations and sponsorships.
- More information on Sponsorships and Donations can be found at:
<https://whitehavencoal.com.au/sustainability/community/donations-sponsorships/>
- Donations for July – Sept 2022 over \$92,200 spent in the local community.
- Some highlights – Dorothea Mackellar Poetry Awards, Gunnedah Meals on Wheels, Narrabri Harmony Choir, Swimming Gunnedah Incorporated, Narrabri Junior Rugby League, Gunnedah Gunnedah Homes for the Aged.



1

Next meeting Wednesday, 8 March 2023 at 9:30am – Venue - Werris Creek Bowling Club. A site visit will be considered as part of this meeting.

Meeting closed at 10:50AM

Mike Silver OAM
Independent Chairperson

30 November 2022



WERRIS CREEK COAL PTY LTD

QUARTERLY ENVIRONMENTAL MONITORING REPORT

June - September 2022

This Environmental Monitoring Report covers the period 1st June to 30th September 2022 for the Werris Creek Coal Mine Community Consultative Committee.

The report includes environmental monitoring results from the on-site Weather Station, Air Quality, Noise, Blasting, Surface Water, Groundwater and Discharge Water Quality together with any community complaints received and general details on site environmental matters.

Note: Elevated monitoring results above the relevant monitoring criteria are highlighted in **yellow**.

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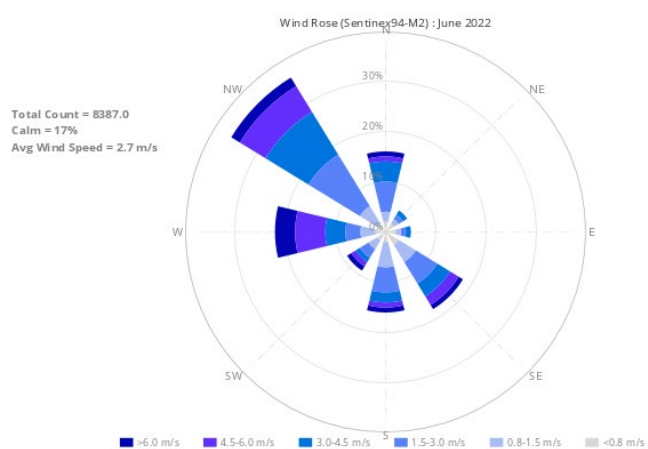
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1.0 METEOROLOGY

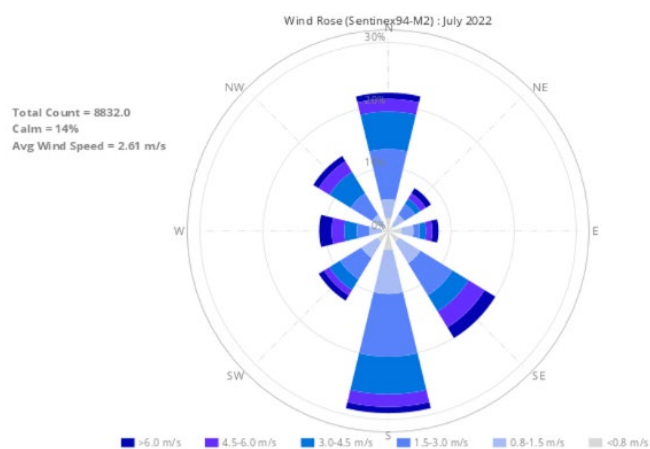
1.1 WEATHER STATION

Werris Creek Coal (WCC) collects meteorological data from the onsite weather station located on the top level of the overburden emplacement. The following table summarises rainfall data for the last four months. The monthly rainfall total for June-July 2022 was below the historical average and above during August-September 2022. Directional wind data, presented in the wind-rose figures below, indicate the prevailing wind direction was predominantly from the north-west in June, from the south in July and September 2022 and from the north in August 2022.

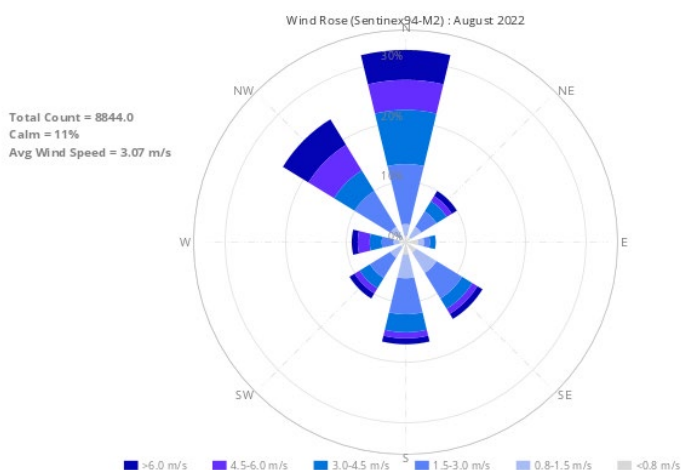
Month	Rainfall (mm)		
	Onsite	Historical Average	2022 Total
June 2022	22.4	61.9	338.6
July 2022	33.0	42.0	371.6
August 2022	116.4	38.3	488.0
September 2022	156.8	48.4	644.8



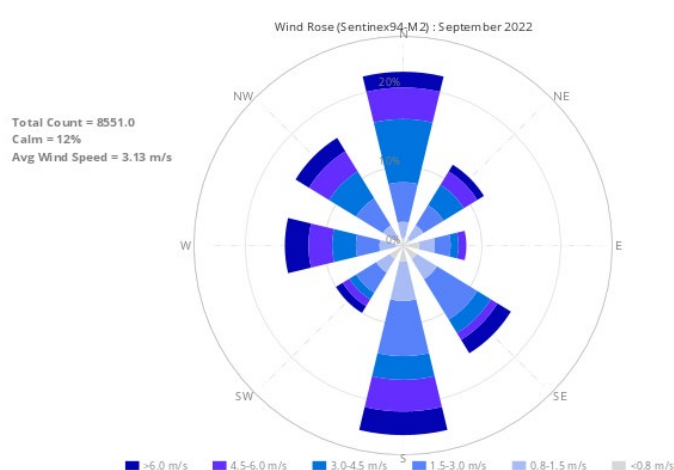
JUNE 2022



JULY 2022



AUGUST 2022



SEPTEMBER 2022

2.0 AIR QUALITY

2.1 HVAS (PM₁₀) and TEOM (PM₁₀ & PM_{2.5})

WCC operates five High Volume Air Samplers (HVAS), four sites measuring particulate matter less than 10 microns (PM₁₀) and one site measuring total suspended particulate (TSP) matter. HVAS sampling is scheduled every 6 days for a 24-hour run period in accordance with Environment Protection Authority (EPA) guidelines. Results are reported in micro grams per cubic metre (µg/m³) of air sampled. In addition, WCC operates a Tapered Element Oscillating Microbalance (TEOM) monitor in Werris Creek measuring real time PM₁₀ and PM_{2.5} (particulate matter less than 2.5 microns) dust levels. Dust monitoring locations are identified in **Figure 1**.

2.1.1 Monitoring Data Results

The average results for the last four months are provided in the table below.

MONITORING LOCATION	24Hr Maximum (µg/m ³)	JUN 2022 (µg/m ³)	JUL 2022 (µg/m ³)	AUG 2022 (µg/m ³)	SEP 2022 (µg/m ³)	2022 AVG (µg/m ³)	CRITERIA (µg/m ³)	
							Annual	24hr
PM _{2.5} – TEOM92 “Werris Creek”	14.2	1.7	1.9	6.1	4.2	3.5	-	-
PM ₁₀ – TEOM92 “Werris Creek”	17.3	6.0	5.0	8.0	8.3	7.3	30	50
PM ₁₀ – HVP20 “Tonsley Park”	15.2	9.8	4.6	3.7	8.1	7.2	30	50
PM ₁₀ – HVP1 “Escott”	6.9	3.0	1.6	1.9	4.8	3.9	30	50
PM ₁₀ – HVP11 “Glenara”	20.0	10.8	5.0	3.3	10.0	8.3	30	50
PM ₁₀ – HVP98 “Kyooma”	6.7	2.8	1.4	1.9	3.8	3.5	30	50
TSP – HVT98 “Kyooma”	15.8	7.3	5.5	4.1	11.6	9.3	90	-

Yellow Bold – Elevated dust level.

2.1.2 Discussion - Compliance / Non Compliance

All TSP, PM₁₀ and PM_{2.5} dust results were within criteria during the period.

2.2 WERRIS CREEK MINE DEPOSITED DUST

Deposited dust monitoring measures particulate matter greater than 30 microns in size that readily settles out of the air related to visual impact. Dust deposition is monitored at 18 locations around WCC. Sampling is scheduled monthly in accordance with EPA guidelines and results are reported as grams per square metre per month (g/m².month). Dust monitoring locations are identified in **Figure 1**.

2.2.1 Monitoring Data Results

The results for the last four months are provided in the table below.

MONITORING LOCATION	JUN 2022 (g/m ² /month)	JUL 2022 (g/m ² /month)	AUG 2022 (g/m ² /month)	SEP 2022 (g/m ² /month)	2022 AVERAGE (g/m ² /month)	Annual Criteria (g/m ² /month)
DG1 "Escott"	0.6	0.1	0.8	0.6	0.9	4.0
DG2 "Cintra"	5.8	10.7*	6.2*	8.5	5.1	4.0
DG3 "Eurunderee"	1.4	0.6	1.5	1.0	0.9	4.0
DG5 "Railway View"	2.2	3.0	4.4	1.9	2.2	4.0
DG9 "Marengo"	2.0	0.3	0.3	0.8	1.2	4.0
DG11 "Glenara"	0.9	0.3	0.7	0.9	0.8	4.0
DG14 "Greenslopes"	0.7	0.2	0.8	0.7	0.7	4.0
DG15 "Plain View"	5.5*	0.5	0.6	0.8	1.4	4.0
DG17 "Woodlands"	6.6	0.7	3.1	1.5	2.2	4.0
DG20 "Tonsley Park"	2.2	1.6	2.2	1.4	1.7	4.0
DG22 "Mountain View"	0.9	0.5	2.6	1.0	1.0	4.0
DG24 "Hazeldene"	2.1	1.2	4.1	1.8	2.2	4.0
DG34 8 Kurrara St	0.8	1.3	0.6	0.9	0.8	4.0
DG62 Werris Creek South	0.9	0.6	0.6	4.1*	0.9	4.0
DG92 Werris Creek Centre	0.6	0.2	0.4	0.7	0.4	4.0
DG98 "Kyooma"	0.5	0.3	0.9	1.7	0.9	4.0
DG101 "Westfall"	2.3	2.2	13.5*	3.2	1.7	4.0
DG103 West Street	1.9	1.5	3.4	3.9	2.2	4.0

* - sample contaminated with excessive organic matter (>50%) from non-mining source (i.e., bird droppings and insects); # - indicates sample is contaminated from a Non-Werris Creek Coal dust source; **Yellow Bold** – Elevated dust level; NS - Not Sampled; Damage – stand and bottle vandalised

2.2.2 Discussion - Compliance / Non-Compliance

All monthly dust deposition gauge results were below the annual criteria of 4.0 g/m²/month throughout the period, with the exception of:

- DG2 (Cintra) has exhibited some high dust levels through the reporting period. The dust is consistent with the activities of the nearby mining activity immediately adjacent to the dust gauge – DG2 is located within the Mining Lease Boundary.
- DG5 (Railway View) had an anomalous high result in August 2022. The rolling average remained below criteria.
- DG17 (Woodlands) had an anomalous high result in June 2022. The rolling average remained below criteria.
- DG24 (Hazeldene) had an anomalous high result in August 2022. The rolling average remained below criteria.

2.3 AIR QUALITY COMPLAINTS

There were no dust complaints recorded during the period.

3.0 NOISE

3.1 OPERATIONAL NOISE

Monthly attended noise monitoring is undertaken representative of the following 16 properties from 13 monitoring points below. Attended noise monitoring was undertaken twice for either 60 minutes at privately owned properties or 15 minutes at properties with private agreements; representative of the day period and the evening/night period.

3.1.1 Monitoring Data Results

The WCC operation's noise level (not ambient noise) results for the last four months are outlined in the tables below. Noise monitoring locations are identified in **Figure 2**.

28th Tuesday, June 2022

Location		Day dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min	Evening/Night dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min
A	"Rosehill" R5	Inaudible	35	Inaudible	35
B	West Quipolly (R7*, R8*, R9* & R22*)	Inaudible#	40	Inaudible	40
C	Central Quipolly (R10*, R11*)	Inaudible	40	Inaudible	40
D	"Hazeldene" R24	Inaudible#	37	Inaudible	37
E	"Railway Cottage" R12	Inaudible#	38	Inaudible	38
F	"Talavera" R96	Inaudible	38	Inaudible	37
H	"Kyooma" R98	Inaudible#	35	Inaudible	35
I	Kurrara St, WC R57	Inaudible#	35	Inaudible	35
J	Coronation Ave, WC	Inaudible#	35	Inaudible	35
K	Alco Park (R21*)	Inaudible#	40	23	40
L	West St, WC (R103)	Inaudible#	35	Inaudible	35

WC – Werris Creek; * - Private agreement in place with resident; **Yellow Bold** – Elevated noise; # Adverse weather with wind >3m/s, temperature inversions >+12°C/100m or >2m/s and >0°C/100m; 1 – R22 criteria is 36 dB(A) L_{eq} 15min while R9 is 37 dB(A) L_{eq} 15min

NM- Denotes Not Measurable. If site only noise is noted as NM, this means some noise from the source of interest was audible at low-levels, but could not be quantified

14th – 15th Thursday-Friday, July 2022

Location		Day dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min	Evening/Night dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min
A	"Rosehill" R5	Inaudible	35	Inaudible	35
B	West Quipolly (R7*, R8*, R9* & R22*)	Inaudible#	40	Inaudible	40
C	Central Quipolly (R10*, R11*)	Inaudible#	40	Inaudible	40
D	"Hazeldene" R24	Inaudible#	37	Inaudible	37
E	"Railway Cottage" R12	Inaudible	38	Inaudible	38
F	"Talavera" R96	Inaudible	38	Inaudible	37
H	"Kyooma" R98	Inaudible#	35	Inaudible	35
I	Kurrara St, WC R57	Inaudible	35	Inaudible	35
J	Coronation Ave, WC	Inaudible#	35	Inaudible	35
K	Alco Park (R21*)	Inaudible	40	26	40
L	West St, WC (R103)	Inaudible	35	Inaudible	35

WC – Werris Creek; * - Private agreement in place with resident; **Yellow Bold** – Elevated noise; # Adverse weather with wind >3m/s, temperature inversions >+12°C/100m or >2m/s and >0°C/100m; 1 – R22 criteria is 36 dB(A) L_{eq} 15min while R9 is 37 dB(A) L_{eq} 15min

NM- Denotes Not Measurable. If site only noise is noted as NM, this means some noise from the source of interest was audible at low-levels, but could not be quantified

18th – 19th Thursday-Friday, August 2022

Location		Day dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min	Evening/Night dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min
A	"Rosehill" R5	26	35	Inaudible#	35
B	West Quipolly (R7*, R8*, R9* & R22*)	27	40	Inaudible	40
C	Central Quipolly (R10*, R11*)	23	40	22#	40
D	"Hazeldene" R24	Inaudible	37	26#	37
E	"Railway Cottage" R12	Inaudible	38	26	38
F	"Talavera" R96	Inaudible	38	29#	37
H	"Kyooma" R98	22#	35	Inaudible#	35
I	Kurrara St, WC R57	Inaudible#	35	Inaudible	35
J	Coronation Ave, WC	Inaudible#	35	Inaudible#	35
K	Alco Park (R21*)	Inaudible#	40	Inaudible#	40
L	West St, WC (R103)	Inaudible#	35	Inaudible#	35

WC – Werris Creek; * - Private agreement in place with resident; **Yellow Bold** – Elevated noise; # Adverse weather with wind >3m/s, temperature inversions >+12°C/100m or >2m/s and >0°C/100m; 1 – R22 criteria is 36 dB(A) L_{eq} 15min while R9 is 37 dB(A) L_{eq} 15min

NM- Denotes Not Measurable. If site only noise is noted as NM, this means some noise from the source of interest was audible at low-levels, but could not be quantified

19th and 20th Monday-Tuesday, September 2022

Location		Day dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min	Evening/Night dB(A) L_{eq} 15min	Criteria dB(A) L_{eq} 15min
A	"Rosehill" R5	Inaudible	35	Inaudible	35
B	West Quipolly (R7*, R8*, R9* & R22*)	Inaudible	40	Inaudible	40
C	Central Quipolly (R10*, R11*)	Inaudible	40	Inaudible	40
D	"Hazeldene" R24	Inaudible	37	Inaudible	37
E	"Railway Cottage" R12	Inaudible	38	Inaudible	38
F	"Talavera" R96	Inaudible	38	25	37
H	"Kyooma" R98	21	35	Inaudible	35
I	Kurrara St, WC R57	Inaudible#	35	25	35
J	Coronation Ave, WC	Inaudible	35	Inaudible	35
K	Alco Park (R21*)	Inaudible	40	23	40
L	West St, WC (R103)	Inaudible	35	Inaudible	35

WC – Werris Creek; * - Private agreement in place with resident; **Yellow Bold** – Elevated noise; # Adverse weather with wind >3m/s, temperature inversions >+12°C/100m or >2m/s and >0°C/100m; 1 – R22 criteria is 36 dB(A) L_{eq} 15min while R9 is 37 dB(A) L_{eq} 15min

NM- Denotes Not Measurable. If site only noise is noted as NM, this means some noise from the source of interest was audible at low-levels, but could not be quantified

3.1.2 Discussion - Compliance / Non-Compliance

Noise from Werris Creek Coal Mine was inaudible at a high percentage of the monitoring sites during the quarter. Throughout the period, Werris Creek Coal Mine adjusted mining operations and shut down equipment at various times to reduce noise generation potential in response to noise levels measured at the real time noise monitors.

3.2 Noise complaints

There was one noise complaint (11/07/2022) recorded during the period.

4.0 BLASTING

During the reporting period there was a total of 26 blasts fired by WCC with monitoring of each blast undertaken at "Glenara", "Kyooma", "Werris Creek South" and "Werris Creek Mid". Compliance limits for blasting overpressure is 115dB(L) (and up to 120dB(L) for only 5% of blasts) and vibration is 5mm/s (and up to 10mm/s for only 5% of blasts). Blast monitoring locations are identified in **Figure 3**.

4.1 BLAST MONITORING**4.1.1 Monitoring Data Results**

The summary tables of blasting results over the last four months are provided below.

June 2022		"Glenara" R11		"Kyooma" R98		Werris Creek South R62		Werris Creek Mid R92	
		mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)
Monthly Average		0.09	100.6	0.49	105.1	0.56	102.2	0.29	96.9
Monthly Maximum		0.17	104.1	0.98	112.5	1.22	104.5	0.54	99.7
Annual Average		0.12	101.1	0.78	101.5	0.50	102.1	0.33	96.6
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

July 2022		"Glenara" R11		"Kyooma" R98		Werris Creek South R62		Werris Creek Mid R92	
		mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)
Monthly Average		0.13	102.5	0.93	103.2	0.56	103.1	0.36	101.2
Monthly Maximum		0.20	107.5	1.32	107.9	0.97	109.1	0.53	112.7
Annual Average		0.12	101.3	0.80	101.8	0.51	102.2	0.33	97.3
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

August 2022		"Glenara" R11		"Kyooma" R98		Werris Creek South R62		Werris Creek Mid R92	
		mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)
Monthly Average		0.07	100.6	0.48	100.6	0.37	101.1	0.24	92.4
Monthly Maximum		0.11	109.2	0.89	104.4	0.49	109.1	0.31	109.1
Annual Average		0.12	101.2	0.76	101.6	0.49	102.1	0.32	96.7
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

September 2022		"Glenara" R11		"Kyooma" R98		Werris Creek South R62		Werris Creek Mid R92	
		mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)	mm/s	dB(L)
Monthly Average		0.12	98.9	0.69	102.0	0.38	101.5	0.27	98.3
Monthly Maximum		0.17	105.7	1.40	110.6	0.45	107.5	0.33	102.6
Annual Average		0.12	100.9	0.75	101.7	0.48	102.0	0.32	96.8
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Yellow – overpressure >115dB(L) or Werris Creek vibration >5.0mm/s.

4.1.2 Discussion - Compliance / Non-Compliance

All blasts over the period complied with maximum licence limits (120dB(L) and 10mm/s) as well as the 95th percentile limits (115dB(L) and 5mm/s).

4.2 BLAST COMPLAINTS

There was one blast complaints (15/07/2022) during the period regarding vibration.

5.0 WATER

The groundwater monitoring program monitors groundwater levels bi-monthly and groundwater quality six monthly. Surface water monitoring is undertaken quarterly.

5.1 GROUND WATER

Groundwater monitoring is undertaken to identify if there are any impacts on groundwater quality and water levels as a result of the mining operations. WCC monitors approximately 38 groundwater wells/bore and piezometers in the key aquifers surrounding WCC including Werrie Basalt (next to WCC and further afield) and Quipolly Creek Alluvium. Groundwater level surveys were completed between 11-28 July 2022 and 12 September to 5 October 2022. Groundwater monitoring locations are identified in **Figure 4**.

5.1.1 Monitoring Data Results

A summary of groundwater monitoring results has been provided below.

Site		July-22	
		mbgl	%
Werrie Basalt near WCC	MW1	Dry	
	MW2	34.10	-2%
	MW3	17.05	2%
	MW4B	15.78	3%
	MW5	9.48	1%
	MW6	14.73	1%
	MW27*	52.48	-1%
	MW36A	19.23	-2%
	MW36B	19.22	-2%
Werrie Basalt	MW8*	No access	
	MW10	9.40	-2%
	MW14	14.95	-1%
	MW17B*	9.50	19%
	MW19A*	Pump over bore	
	MW20*	18.92	0%
	MW38A	10.93	-5%
	MW38B*	9.08	-2%
	MW38C*	20.64	0%
	MW38E*	7.62	40%
	MW41	5.13	-4%
	MW43	4.57	-3%
# ¹	MW24A*	12.16	1%
	MW29*	10.57	-1%
Quipolly Alluvium	MW12*	9.06	-1%
	MW13*	4.61	0%
	MW13B*	3.13	2%
	MW13D*	4.32	1%
	MW15*	No Access	
	MW16*	4.31	-6%
	MW17A*	3.40	6%
	MW18A*	3.26	5%
	MW21A*	5.88	-7%
	MW22A*	4.43	-5%
	MW22B*	4.58	-7%
	MW23A*	3.64	2%
	MW23B*	3.80	2%
	MW26B*	4.78	-5%
	MW28A*	9.79	-15%
	MW32*	Pump over bore	
	MW40	5.11	-4%
	MW42	4.50	-2%
# ²	MW34*	9.11	-2%

Site		September-22	
		mbgl	%
Werrie Basalt near WCC	MW1	Dry	
	MW2	33.70	1%
	MW3	16.68	2%
	MW4B	15.57	1%
	MW5	8.88	7%
	MW6	15.61	-6%
	MW27*	52.07	1%
	MW36A	18.74	3%
	MW36B	18.72	3%
Werrie Basalt	MW8*	No access	
	MW10	9.26	2%
	MW14	14.84	1%
	MW17B*	8.85	7%
	MW19A*	Pump over bore	
	MW20*	18.72	1%
	MW38A	10.30	6%
	MW38B*	8.94	2%
	MW38C*	-	-
	MW38E*	7.33	4%
	MW41	#N/A	#N/A
	MW43	4.15	10%
# ¹	MW24A*	11.94	2%
	MW29*	9.77	8%
Quipolly Alluvium	MW12*	6.61	37%
	MW13*	4.27	8%
	MW13B*	2.94	6%
	MW13D*	4.17	4%
	MW15*	No Access	
	MW16*	4.15	4%
	MW17A*	3.10	10%
	MW18A*	2.95	11%
	MW21A*	5.08	16%
	MW22A*	4.01	10%
	MW22B*	4.06	13%
	MW23A*	3.56	2%
	MW23B*	3.75	1%
	MW26B*	4.39	9%
	MW28A*	6.57	49%
	MW32*	Pump over bore	
	MW40	4.57	12%
	MW42	4.13	9%
# ²	MW34*	8.92	2%

mbgl – meters below ground level is the distance in meters from top of bore to groundwater surface; **Orange** – Change decrease; **Green** – change increase or no change; * - Indicates bore is used for water extraction unrelated to WCC (i.e. stock and domestic or irrigation). #¹ – Werrie Basalt in the Black Soil Gully valley to east of Werris Creek Mine. #² - Werris Creek Alluvium.

5.1.2 Discussion - Compliance / Non-Compliance

Measured groundwater levels in the Werrie Basalt and Quipolly Alluvium aquifer indicate an overall increase in water levels from July to September 2022.

5.2 SURFACE WATER

Surface water monitoring is undertaken in local creeks offsite as well as from discharge point dirty water dams to monitor for potential water quality issues. Quarterly surface water monitoring was undertaken 24th to 25th August 2022. Surface water monitoring locations are identified in **Figure 5**.

5.2.1 Monitoring Data Results

Summary of surface water quality monitoring results has been provided below.

24th & 25th August 2022

Site	pH	EC	TSS	O&G	Change from Previous Quarter or General Comments
ONSITE					
SB2	7.7	347	14	<5	Previously dry (muddy)
SB9	7.55	284	38	<5	Previously dry, low water level now
SB10	7.5	427	24	<5	Water remains in dam
SB18	7.97	321	8	<5	Previously dry, low water level now
OFFSITE					
QCU	7.99	434	<5	<5	Remained flowing
QCD	8.08	643	18	<5	Remained flowing
WCU	8.33	904	8	<5	Remained flowing
WCD	8.39	1040	12	<5	Remained flowing

pH – measure of acidity/alkalinity; EC – Electrical Conductivity measures salinity; TSS – Total Suspended Solids is a measure of suspended sediment in water (i.e. similar to turbidity); O&G – Oil and Grease measures amount of hydrocarbons (oils and fuels) in water. NA – No Access

5.2.2 Discussion - Compliance / Non-Compliance

Quarterly surface water monitoring was undertaken on August 24th and 25th 2022. All water quality results were within long-term averages and the Site Water Management Plan trigger values.

5.3 SURFACE WATER DISCHARGES

5.3.1 Monitoring Data Results

There were three uncontrolled discharge events between July and September 2022 following above average rainfall during the month. Eight controlled discharge events also occurred this period.

Sampling conducted within the Quipolly and Werris Creek system during the discharge events was in accordance with licence conditions.

Sample Date	Dam	pH	EC	TSS	O&G	Compliance	Type	5 Day Rain (mm)
01/07/2022	SB11 (EPA12)	7.8	780	4	<5	Yes	Controlled	N/A
01/07/2022	QCU (EPA25)	7.2	510	3	<5	N/A	Controlled	N/A
01/07/2022	QCD (EPA26)	7.9	780	2	<5	N/A	Controlled	N/A
11/08/2022	SB11 (EPA12)	7.4	650	13	<5	Yes	Controlled	N/A
11/08/2022	SB10 (EPA14)	7.4	590	11	<5	Yes	Controlled	N/A
11/08/2022	QCU (EPA25)	7.4	460	8	<5	N/A	Controlled	N/A
11/08/2022	QCD (EPA26)	7.6	540	20	<5	N/A	Controlled	N/A
11/08/2022	WCU (WPA23)	8.2	900	19	<5	N/A	Controlled	N/A
11/08/2022	WCD (WPA24)	8.2	980	24	<5	N/A	Controlled	N/A
14/08/2022	SB10 (EPA14)	7.3	140	89	<5	Yes - TSS Ok because rainfall >39.2mm	Wet weather - uncontrolled	42.8
14/08/2022	WCU (WPA23)	8.0	290	105	<5	N/A	Controlled	N/A
14/08/2022	WCD (WPA24)	7.9	260	460	<5	N/A	Controlled	N/A
18/08/2022	SB3 (EPA10)	7.0	570	5	<5	Yes	Controlled	N/A
18/08/2022	SB11 (EPA12)	7.1	570	6	<5	Yes	Controlled	N/A
18/08/2022	SB10 (EPA14)	7.2	430	35	<5	Yes	Controlled	N/A
18/08/2022	QCU (EPA25)	7.0	330	2	<5	N/A	Controlled	N/A
18/08/2022	QCD (EPA26)	7.0	380	6	<5	N/A	Controlled	N/A
18/08/2022	WCU (WPA23)	7.1	600	8	<5	N/A	Controlled	N/A

18/08/2022	WCD (WPA24)	7.0	660	28	<5	N/A	Controlled	N/A
15/09/2022	SB3 (EPA10)	7.7	840	21	<5	Yes	Controlled	N/A
15/09/2022	SB10 (EPA14)	7.3	270	47	<5	Yes	Controlled	N/A
15/09/2022	QCU (EPA25)	7.8	340	23	<5	N/A	Controlled	N/A
15/09/2022	QCD (EPA26)	7.7	400	22	<5	N/A	Controlled	N/A
15/09/2022	WCU (WPA23)	8.2	650	18	<5	N/A	Controlled	N/A
15/09/2022	WCD (WPA24)	8.2	760	29	<5	N/A	Controlled	N/A
16/09/2022	SB2 (EPA10)	7.7	192	633	<5	Yes - TSS Ok because rainfall >39.2mm	Wet weather - Uncontrolled	58.6
16/09/2022	SB10 (EPA14)	7.1	123	100	<5	Yes - TSS Ok because rainfall >39.2mm	Wet weather - Uncontrolled	58.6
16/09/2022	QCU (EPA25)	7.7	230	135	<5	N/A	Wet weather - Uncontrolled	N/A
16/09/2022	QCD (EPA26)	7.7	278	157	<5	N/A	Wet weather - Uncontrolled	N/A
16/09/2022	WCU (WPA23)	7.6	157	237	<5	N/A	Wet weather - Uncontrolled	N/A
16/09/2022	WCD (WPA24)	7.6	159	552	<5	Yes	Controlled	N/A
20/09/2022	SB11 (EPA12)	7.4	320	20	<5	Yes	Controlled	N/A
20/09/2022	QCU (EPA25)	7.9	280	10	<5	N/A	Controlled	N/A
20/09/2022	QCD (EPA26)	7.7	300	28	<5	N/A	Controlled	N/A
21/09/2022	SB10 (EPA14)	7.2	140	21	<5	Yes	Controlled	N/A
21/09/2022	WCU (WPA23)	8.0	380	59	<5	N/A	Controlled	N/A
21/09/2022	WCD (WPA24)	8.2	650	53	<5	N/A	Controlled	N/A
22/09/2022	SB2 (EPA10)	7.4	340	40	<5	N/A	Wet weather - Uncontrolled	N/A
22/09/2022	SB10 (EPA14)	7.1	110	68	<5	Yes - TSS Ok because rainfall >39.2mm	Wet weather - Uncontrolled	51.4
22/09/2022	QCU (EPA25)	7.1	110	84	<5	N/A	Wet weather - Uncontrolled	N/A
22/09/2022	QCD (EPA26)	7.5	240	127	<5	N/A	Wet weather - Uncontrolled	N/A
22/09/2022	WCU (WPA23)	7.8	180	133	<5	N/A	Wet weather - Uncontrolled	N/A
22/09/2022	WCD (WPA24)	7.8	170	858	<5	N/A	Wet weather - Uncontrolled	N/A
28/09/2022	SB3 (EPA10)	7.7	360	63	<5	No [#]	Controlled	N/A
28/09/2022	SB11 (EPA12)	7.5	310	117	<5	No [#]	Controlled	N/A
28/09/2022	SB13 (EPA14)	7.4	140	9	<5	N/A	Controlled	N/A
28/09/2022	QCU (EPA25)	7.8	320	11	<5	N/A	Controlled	N/A
28/09/2022	QCD (EPA26)	7.8	380	27	<5	N/A	Controlled	N/A
28/09/2022	WCU (WPA23)	8.2	550	28	<5	N/A	Controlled	N/A
28/09/2022	WCD (WPA24)	8.2	670	70	<5	N/A	Controlled	N/A
30/09/2022	SB16 (EPA12)	7.4	290	112	<5	No [#]	Controlled	N/A
30/09/2022	QCU (EPA25)	7.9	340	21	<5	N/A	Controlled	N/A
30/09/2022	QCD (EPA26)	7.7	440	28	<5	N/A	Controlled	N/A
Criteria		6.5 - 8.5	N/A	50	10			

pH – measure of acidity/alkalinity; EC – Electrical Conductivity measures salinity; TSS – Total Suspended Solids is a measure of suspended sediment in water (i.e. similar to turbidity); O&G – Oil and Grease measures amount of hydrocarbons (oils and fuels) in water; **Bold** – indicates results outside criteria due to 5 day rain trigger >39.2mm

[#] The discharge sample was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.

5.3.2 Discussion - Compliance / Non-Compliance

The discharge sample taken on the 28th and 30th of September was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.

5.4 WATER COMPLAINTS

There were no water release complaints during the period.

6.0 COMPLAINTS SUMMARY

There were two complaints received during the reporting period.

#	Date	Issue	Complaint	Investigation	Action Taken
641	11/07/2022	Noise	Complainant wished to advise that noise could be heard coming from the mine.	EO Investigated noise levels and active noise modification measures.	EO advised noise levels were within compliance limits and mining operations will continue to be modified to minimise noise impacts.
642	15/07/2022	Blast	Complainant wished to advise the mine that the vibration from the blast could be felt in Werris Creek.	EO confirmed blast was within compliance limits.	No further follow-up actions

7.0 GENERAL

Please feel free to ask any questions in relation to the information contained within this document during Item 7 of the meeting agenda.

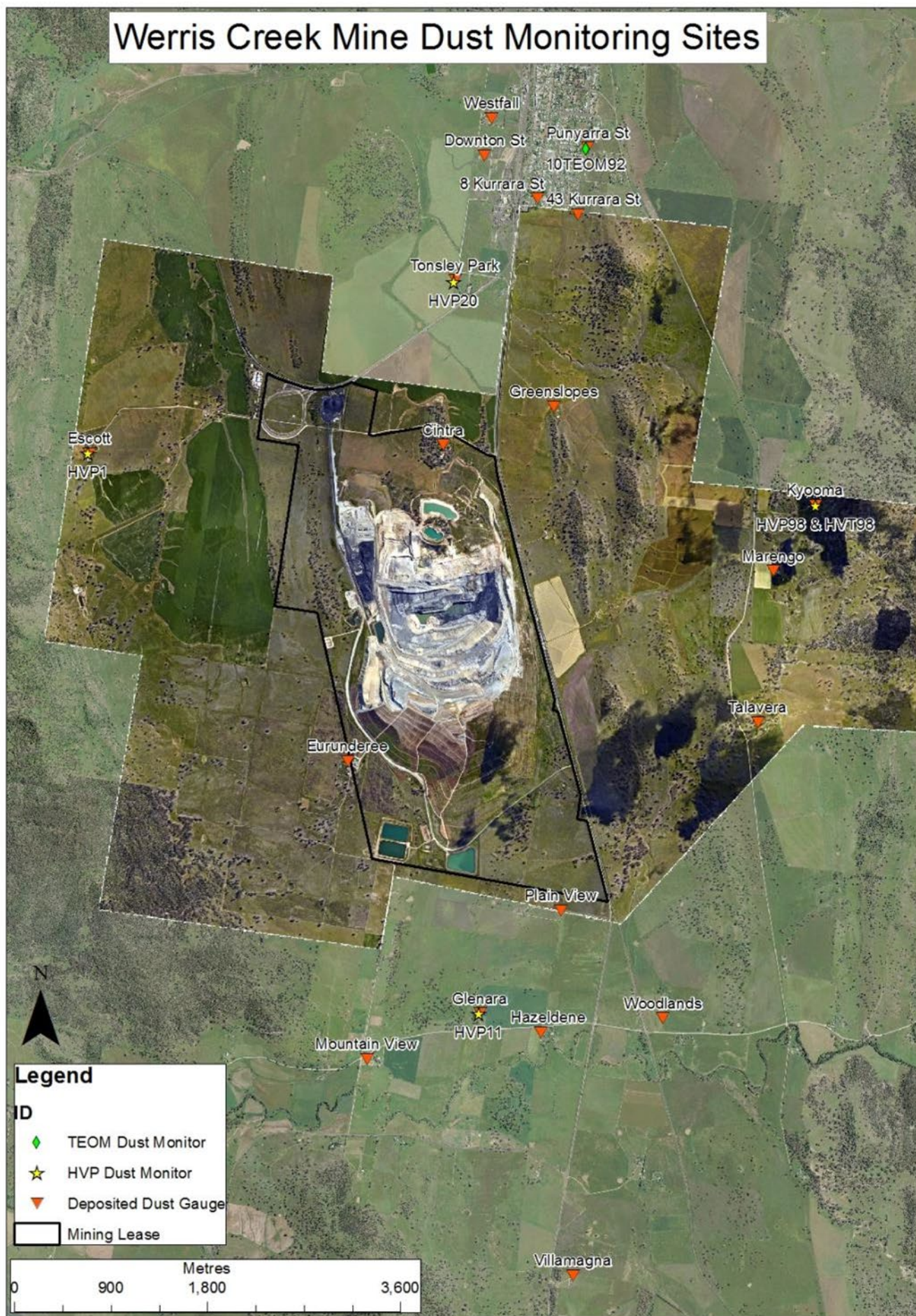


Figure 1 – WCC Dust Monitoring Locations



Figure 2– WCC Noise Monitoring Locations

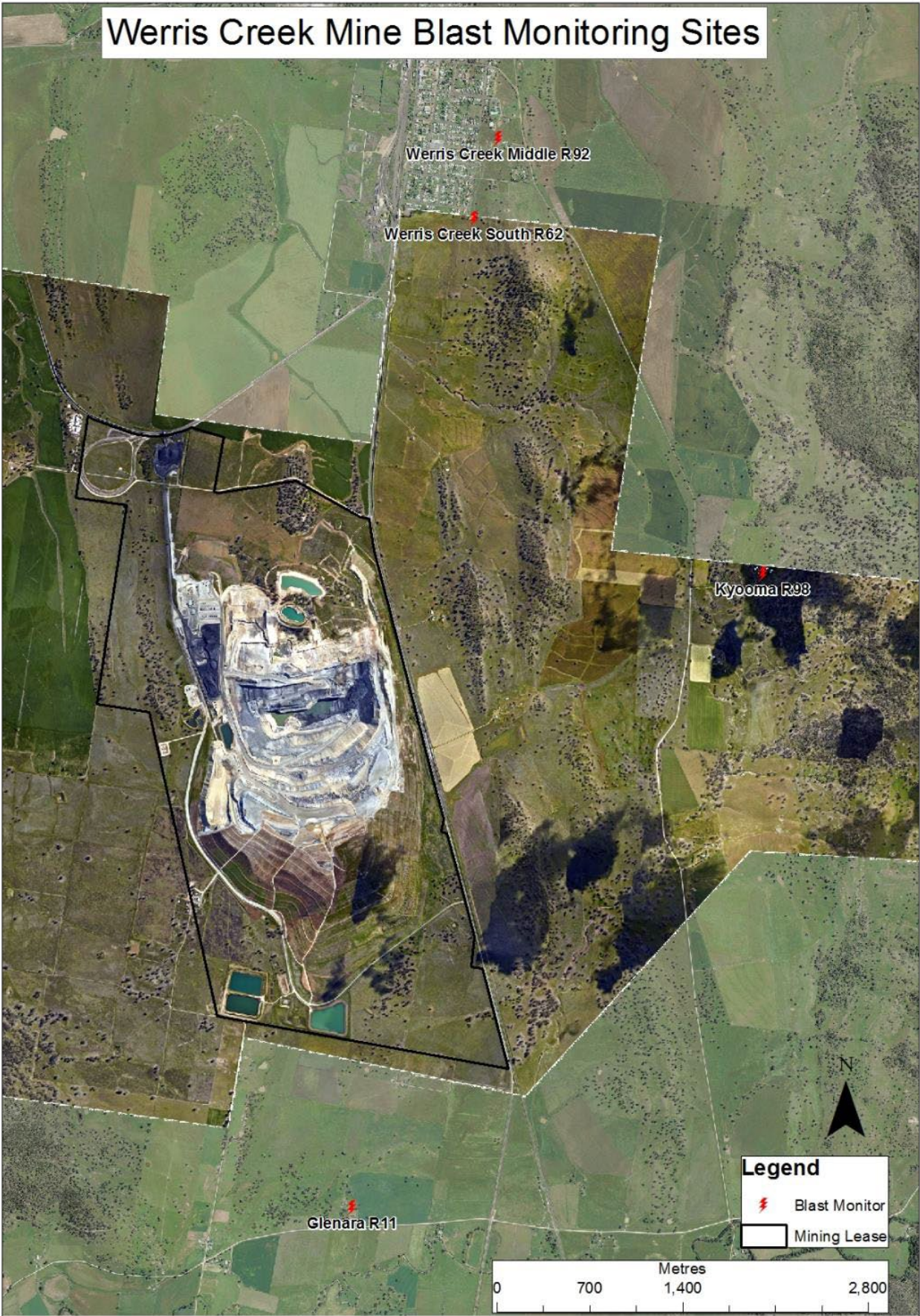


Figure 3 – WCC Blast Monitoring Locations

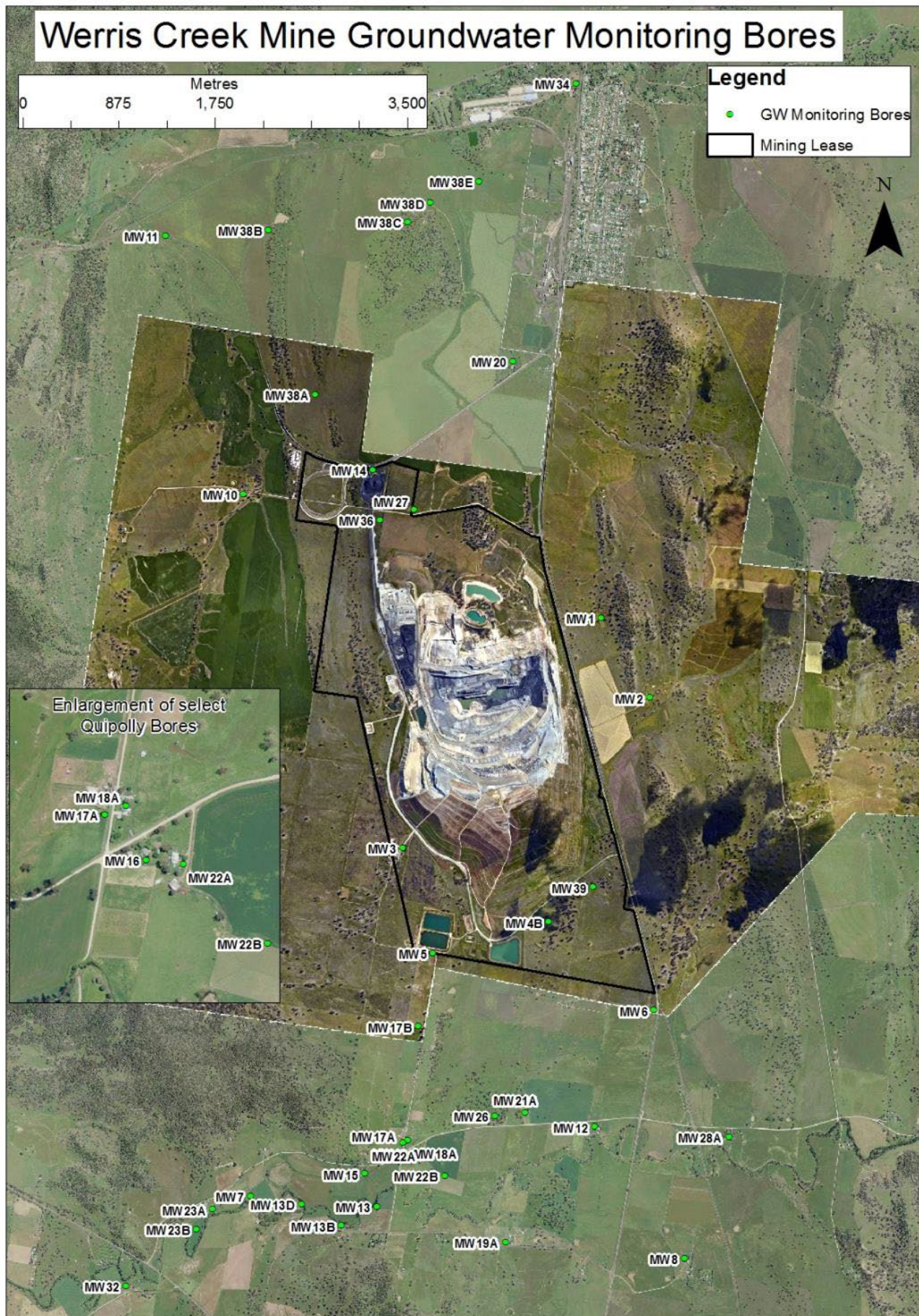


Figure 4 – WCC Groundwater Monitoring Locations



Figure 5 – WCC Surface Water Monitoring Locations