

WERRIS CREEK COAL COMMUNITY CONSULTATIVE COMMITTEE
51st Meeting of the Committee held on site at the Werris Creek Coal Mine
Wednesday, 13 November 2019 at 9:30am

The normal four monthly meeting will begin at 9:30am - A site tour will be available today.

Meeting opened at 9:40am.

Record of attendance

Gae Swain	Independent Chairperson
Jane Bradford OAM	Independent Minute Taker
Rod Hicks	Werris Creek Coal (WCC) Operations Manager
Lynden Cini	Whitehaven Coal. Group Superintendent - Environment
Matt Hollis	Werris Creek Coal Environmental Superintendent
Donna Ausling	Director of Environment – Liverpool Shire Council
Ian Lobsey	Councillor – Liverpool Shire Council (proxy for Virginia Black)
Lindsay Bridge	Community Representative – Phone No. 0431 319 302
Noel Taylor	Community Representative
James O'Brien	Community Representative
Col Stewart OAM	Community Representative

Apologies

Mike Lomax Community Representative

Moved Lindsay Bridge, **seconded** Noel Taylor, THAT the apologies be accepted.

CARRIED

- 2 Declaration of Pecuniary or Other Interests – Gae Swain** has non-pecuniary interests – Son works at Gunnedah Mine and Son-in-law at Narrabri Mine
Donna Ausling – non-pecuniary interest - Family business may have performed powerline work for Whitehaven Coal

3 New Matters for Discussion under General Business today

- a) Alleged explosion at the mine on 12 October last after 1:00pm –to be discussed.
- b) Water, associated with the use of the irrigator.
- c) Tabled – Email received from Mr Peter Wills requesting response on water management at Werris Creek Coal

4 Minutes of the Previous Meeting

Moved Lindsay Bridge, **seconded** Col Stewart, THAT the Minutes of the previous meeting be accepted as a true and accurate record.

CARRIED

5 Matters Arising - Nil

6 Environment Monitoring Report from 1 June 2019 – to 30 September 2019

Lynden Cini provided commentary on each section of the above report.

1.1 Meteorology – Weather Station – minimal rainfall (33.8) for period recorded - conditions still very dry

2.1.1 Air quality– Dust storms regionally

2.2 Donna Ausling forwarded the web site to check dust levels as follows:

<https://www.environment.nsw.gov.au/aqms/subscribe.htm>

2.2.1 Very slight variation

2.3.1 Rail dust slight spike in August but coal as normal

2..

3.1 Noise levels – no issues for the period

4.1 Blasting – within guidelines

5.1 Ground Water –MW24A – slight adjustment – back to normal

6.0 Very few complaints – mainly blasting related complaints, all blasts were within compliance guidelines.

Moved Col Stewart, **seconded** Lindsay Bridge, **THAT** the Environmental Monitoring Report be accepted. **CARRIED**

7 General Business

7.1 “Alleged explosion at the mine on 12 October last after 1:00pm – *WCC personnel to check and report back for these Minutes*

7.2 Water – Pivot irrigator seems to be using excessive water / running for longer periods

Lynden confirmed that the Werris Creek Coal reports annually on any usage as water is metered to the irrigator.

7.3 Water – who owns the licence *and how much water is used each time the irrigator operates and how many irrigation events have occurred since it started? WCC personnel to review details and report back for these Minutes.*

7.4 Email from Mr Peter Wills, discussed. It is noted that the questions raised by Noel are of a similar theme to the items raised by Mr Wills. Response from Whitehaven Coal to items raised by Mr Wills will be forth coming.

Next meeting Wednesday, 11 March 2020 at 9:30am – same venue and to include a mine tour of Werris Creek Coal (weather permitting).

Meeting closed at 10:05AM

Multiple members undertook a mine site tour reviewing areas of interest.

Copy to all Committee Members

The Minutes will also be posted on the Whitehaven Coal Website

Appendices

A) Response to items taken on notice under General Business.

B) Discussed email from Mr Peter Wills.

Gae Swain
Independent Chairperson

18 November 2019



WERRIS CREEK COAL PTY LTD

QUARTERLY ENVIRONMENTAL MONITORING REPORT - DRAFT

June, July, August and September 2019

This Environmental Monitoring Report covers the period 1st June 2019 to 30th September 2019 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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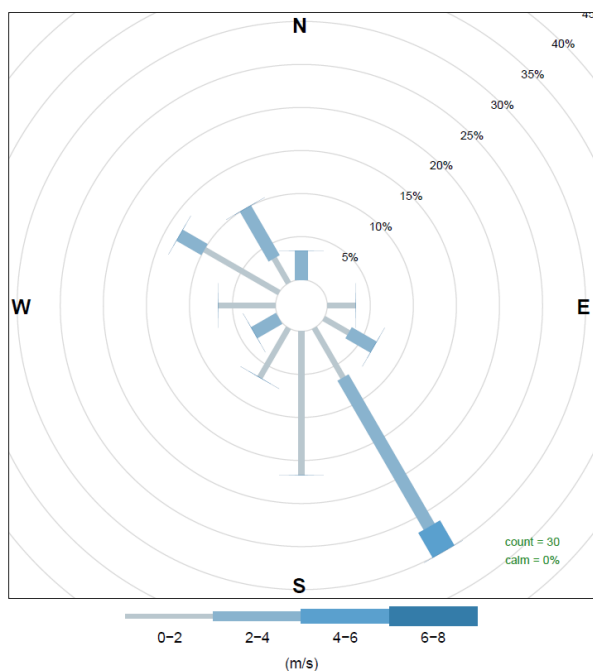
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1.0 METEOROLOGY

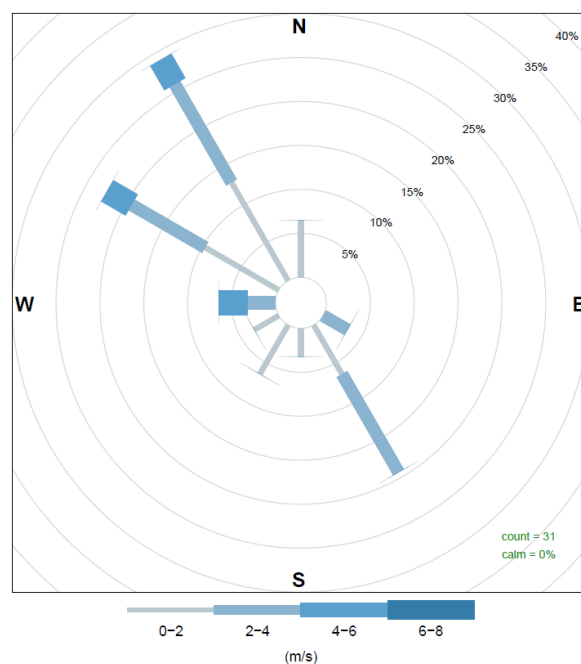
1.1 WEATHER STATION

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. Monthly rainfall totals in June, July, August and September 2019 were all lower than the historical average. Directional wind data, presented in the wind-rose figures below, indicate the prevailing wind direction was predominantly from the SSE in June, NW/ NWN in July and August and S/SW in September 2019.

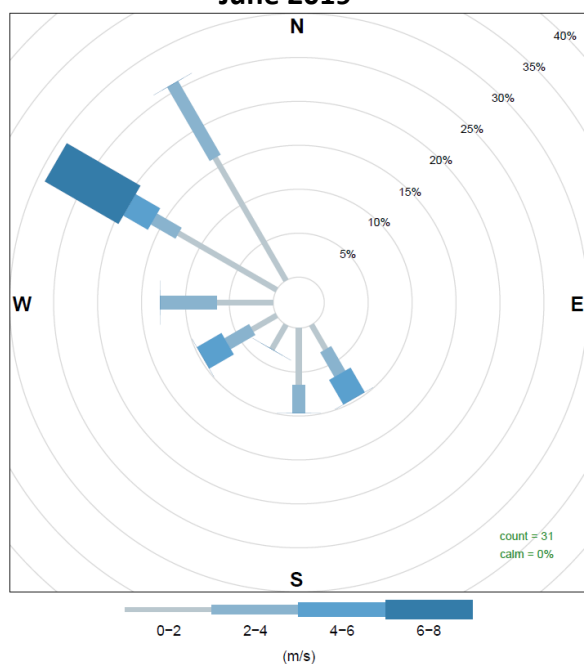
Month	Rainfall (mm)		
	Onsite	Historical Average	2019 Total
June 2019	13.0	61.0	181.2
July 2019	14.4	37.3	195.6
August 2019	2.2	33.6	197.8
September 2019	4.2	47.7	202.0



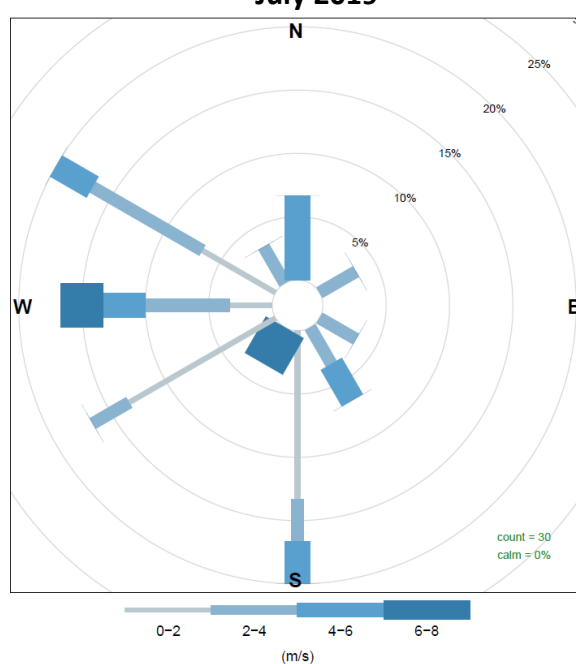
June 2019



July 2019



August 2019



September 2019

2.0 AIR QUALITY

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

WCC operates five High Volume Air Samplers (HVAS) measuring particulate matter less than 10 micron (PM₁₀) and total suspended particulate (TSP) matter at four sites. 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 micron) 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.

Monitor Location	Daily Maximum (µg/m ³)	June 2019 (µg/m ³)	July 2019 (µg/m ³)	August 2019 (µg/m ³)	September 2019 (µg/m ³)	2019 Average (g/m ² /month)	Criteria (µg/m ³)	
							Annual	Daily
PM _{2.5} – TEOM92 “Werris Creek”	14.7	4.8	3.2	3.7	5.4	5.4	8	25
PM ₁₀ – TEOM92 “Werris Creek”	118.3	9.6	9.6	17.2	20.7	17.1	30	50
PM ₁₀ – HVP20 “Tonsley Park”	32.2	15.9	11.2	14.2	19.7	24.8	30	50
PM ₁₀ – HVP1 “Escott”	27.0	7.2	6.8	9.6	11.1	16.5	30	50
PM ₁₀ – HVP11 “Glenara”	33.3	13.7	13.0	17.8	19.6	25.6	30	50
PM ₁₀ – HVP98 “Kyooma”	17.0	4.8	6.9	7.2	10.9	15.6	30	50
TSP – HVT98 “Kyooma”	41.1	11.9	13.1	19.1	28.6	35.2	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 with the exception of two PM₁₀ results measured at “TEOM92 “Werris Creek””, on the 6th and 7th September 2019. On both occasions the exceedances were reported with the elevated results affected by high regional elevated dust levels.

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 20 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.

Monitor Location	June 2019 (g/m ² /month)	July 2019 (g/m ² /month)	August 2019 (g/m ² /month)	September 2019 (g/m ² /month)	2019 Average (g/m ² /month)	Annual Criteria (g/m ² /month)
DG1 "Escott"	0.3	0.1	2.3	0.8	0.8	4.0
DG2 "Cintra"	5.0	5.8	4.1	8.3	5.0	4.0
DG3 "Eurunderee"	1.0	3.5	0.8	1.2	2.3	4.0
DG5 "Railway View"	2.6	1.0	0.7	3.8	2.3	4.0
DG9 "Marengo"	0.7	0.5	0.7	0.7	1.1	4.0
DG11 "Glenara"	0.7	0.5	2.7	0.7	1.4	4.0
DG14 "Greenslopes"	2.1	0.3	0.6	2.6	1.4	4.0
DG15 "Plain View"	0.8	0.4	0.6	1.4	1.1	4.0
DG17 "Woodlands"	1.0	0.4	0.5	0.6	1.0	4.0
DG20 "Tonsley Park"	1.3	0.6	3.1	1.2	1.9	4.0
DG22 "Mountain View"	0.7	0.8	1.1	0.6	1.5	4.0
DG24 "Hazeldene"	10.2	0.6	0.7	1.4	2.3	4.0
DG34 8 Kurrara St	0.8	0.6	0.6	0.8	8.4	4.0
DG62 Werris Creek South	0.5	0.2	0.6	0.5	0.9	4.0
DG92 Werris Creek Centre	0.5	0.2	2.5	0.5	1.1	4.0
DG96 "Talavera"	NS	NS	NS	NS	NA	NA
DG98 "Kyooma"	0.4	0.2	0.8	0.5	0.8	4.0
DG101 "Westfall"	0.9	0.5	2.2	1.6	1.9	4.0
DG103 West Street	1.4	0.5	0.6	0.6	1.2	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; Broken- Dust bottle broken in transit

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) which had high results in June, July, August and September 2019 and a rolling average above criteria.

DG24 (Hazeldene) in June 2019 had one anomalous high dust deposition measurement, deposited dust levels remained low at nearby gauges, indicating a localised source of dust, unrelated to activities at Werris Creek Coal Mine. DG34 (8 Kurrara St) has a current rolling 2019 average above criteria. Consistently high dust levels at this gauge and low deposited dust levels at nearby gauges indicate a localised source of dust generation, unrelated to activities at Werris Creek Coal Mine.

2.3 QUIRINDI TRAIN DUST DEPOSITION

2.3.1 Monitoring Data Results

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

Monitor Location	June 2019		July 2019		August 2019		September 2019		2019 Average (g/m ² /month)
	g/m ² /month	% Coal	g/m ² /month	% Coal	g/m ² /month	% Coal	g/m ² /month	% Coal	
DDW30	1.0	10%	0.4	40%	1.8	10%	1.2	20%	1.6
DDW20	1.9	10%	1.0	5%	9.4*	<5%	1.2	10%	1.6
DDW13	1.5	30%	0.9	5%	4.1*	<5%	1.5	25%	1.9
Train Line									
DDE13	0.5	25%	0.9	20%	1.4	15%	1.0	20%	1.5
DDE20	0.7	50%	0.5	10%	1.1	15%	0.8	10%	1.2
DDE30	2.5	<5%	0.8	10%	2.3	<5%	0.2	10%	2.1

* - sample contaminated with excessive organic matter (>50%) from non-mining source (i.e. bird droppings and insects); NS – Not Sampled, bottle and funnel smashed.

2.3.2 Discussion - Compliance / Non Compliance

Overall, the dust fallout levels adjacent to the train line are low, well below the impact assessment criteria nominated by the EPA of 4.0 g/m²/month and comparable to the levels monitored around Werris Creek Coal Mine. Coal contributions to the dust fraction remain generally low.

2.4 AIR QUALITY COMPLAINTS

There was one dust complaint 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 three months are outlined in the table below. Noise monitoring locations are identified in **Figure 2**.

Thursday 20th June 2019

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	25#	38	Inaudible#	38
F	"Talavera" R96	Inaudible#	38	22	37
H	"Kyooma" R98	26#	38	24	38
I	Kurrara St, WC R57	Inaudible#	35	Inaudible#	35
J	Coronation Ave, WC	Inaudible#	35	Inaudible#	35
K	Alco Park (R21*)	Inaudible#	40	29	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

Thursday 25th July 2019

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	25	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	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

Monday 26TH and Tuesday 27th August 2019

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	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*)	Inaudible	40	25#	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

September 2019

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	TBA	35	TBA	35
B	West Quipolly (R7*, R8*, R9* & R22*)	TBA	40	TBA	40
C	Central Quipolly (R10*, R11*)	TBA	40	TBA	40
D	"Hazeldene" R24	TBA	37	TBA	37
E	"Railway Cottage" R12	TBA	38	TBA	38
F	"Talavera" R96	TBA	38	TBA	37
H	"Kyooma" R98	TBA	40	TBA	40
I	Kurrara St, WC R57	TBA	35	TBA	35
J	Coronation Ave, WC	TBA	35	TBA	35
K	Alco Park (R21*)	TBA	40	TBA	40
L	West St, WC (R103)	TBA	35	TBA	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 forty-two 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 (and up to 120dB 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 2019		“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	100.5	0.33	102.6	0.21	103.2	0.13	100.4
Monthly Maximum		0.12	106.2	0.55	112.3	0.41	110.0	0.21	106.3
Annual Average		0.10	99.61	0.58	100.35	0.34	101.50	0.20	99.74
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	Rolling Ave	0.00%	0.00%	0.00%	0.00%	0.00%	0.77%	0.00%	0.00%
	Reporting Year	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

July 2019		“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		0.10	101.3	0.58	101.5	0.35	103.6	0.21	100.6
Monthly Maximum		0.20	106.0	1.08	106.7	0.93	115.6	0.54	114.0
Annual Average		0.10	99.84	0.58	100.52	0.34	101.80	0.20	99.86
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	Rolling Ave	0.00%	0.00%	0.00%	0.00%	0.00%	0.75%	0.00%	0.00%
	Reporting Year	0.00%	0.00%	0.00%	0.00%	0.00%	1.32%	0.00%	0.00%

August 2019		“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	99.2	0.56	101.9	0.28	101.8	0.14	102.8
Monthly Maximum		0.22	113.1	1.28	109.0	0.56	112.0	0.28	111.9
Annual Average		0.10	99.76	0.58	100.69	0.33	101.80	0.20	100.23
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	Rolling Ave	0.00%	0.00%	0.00%	0.00%	0.00%	0.78%	0.00%	0.00%
	Reporting Year	0.00%	0.00%	0.00%	0.00%	0.00%	1.15%	0.00%	0.00%

September 2019		“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	100.7	0.17	103.5	0.29	102.6	0.17	98.8
Monthly Maximum		0.14	111.2	0.53	114.4	0.64	113.7	0.30	110.7
Annual Average		0.10	99.86	0.54	101.00	0.33	101.89	0.19	100.07
Criteria		5	5	115	5	115	5	115	5
% >115dB(L) or 5mm/s	Rolling Ave	0.00%	0.00%	0.00%	0.00%	0.00%	0.84%	0.00%	0.00%
	Reporting Year	0.00%	0.00%	0.00%	0.00%	0.00%	1.06%	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 of 10mm/s) as well as the 95th percentile limits 5mm/s. However one blast was above the 95th percentile limits of 115dB(L) at Werris Creek South R62 on the 5 July 2019.

4.2 BLAST COMPLAINTS

There were six blast complaints during the period.

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 on the 5, 10, 12, 18, 22 and 24 July 2019 and 4, 5, 6 and 9 September 2019. 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-19		Site		September-19	
		mbgl	%			mbgl	%
Werrie Basalt near WCC	MW1	Dry		Werrie Basalt near WCC	MW1	Dry	
	MW2	Dry			MW2	58.32	-9%
	MW3	20.73	-1%		MW3	20.78	0%
	MW4B	19.10	-2%		MW4B	19.35	-1%
	MW5	13.70	-1%		MW5	13.76	0%
	MW6	16.23	0%		MW6	16.32	-1%
	MW27*	Dry			MW27*	Dry	
	MW36A	22.63	-4%		MW36A	23.35	-3%
Werrie Basalt	MW36B	22.62	-4%		MW36B	23.34	-3%
	MW8*	20.89	-1%	Werrie Basalt	MW8*	21.06	-1%
	MW10	14.27	-1%		MW10	14.32	0%
	MW14	18.26	-6%		MW14	19.32	-5%
	MW17B*	15.96	-9%		MW17B*	15.94	0%
	MW19A*	No access			MW19A*	No access	
	MW20*	22.88	0%		MW20*	23.03	-1%
	MW38A	13.10	-7%		MW38A	13.73	-5%
	MW38B*	10.40	0%		MW38B*	10.42	0%
	MW38C*	24.25	0%		MW38C*	24.24	0%
	MW38E*	11.81	0%		MW38E*	11.92	-1%
# ¹	MW41	10.51	-2%		MW41	10.60	-1%
	MW43	9.26	-2%		MW43	9.36	-1%
	MW24A*	17.7	0%		MW24A*	16.05	10%
	MW29*	14.69	0%		MW29*	14.84	-1%
Quipolly Alluvium	MW12*	Dry		Quipolly Alluvium	MW12*	Dry	
	MW13*	Dry			MW13*	Dry	
	MW13B*	6.8	-4%		MW13B*	6.82	0%
	MW13D*	6.62	0%		MW13D*	6.63	0%
	MW15*	Dry			MW15*	No access	
	MW16*	Dry			MW16*	Dry	
	MW17A*	8.37	-1%		MW17A*	8.59	-3%
	MW18A*	Dry			MW18A*	Dry	
	MW21A*	Dry			MW21A*	Dry	
	MW22A*	Dry			MW22A*	Dry	
	MW22B*	Dry			MW22B*	Dry	
	MW23A*	4.83	-1%		MW23A*	4.9	-1%
	MW23B*	5.62	-15%		MW23B*	5.67	-1%
	MW26B*	10.8	-1%		MW26B*	10.93	-1%
	MW28A*	Dry			MW28A*	Dry	
	MW32*	Pump over bore			MW32*	Pump over bore	
	MW40	10.53	-1%		MW40	10.63	-1%
	MW42	9.15	-2%		MW42	9.25	-1%
# ²	MW34*	No access		# ²	MW34*	12.33	-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 general sustained or decreased water levels during July and September 2019.

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 on the 8th August 2019. 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.

8th August 2019

Site	pH	EC	TSS	O&G	Change from Previous Quarter or General Comments
ONSITE					
SB2	Dry	Dry	Dry	Dry	Dry- grassy basin
SB9	Dry	Dry	Dry	Dry	Dry- clay basin
SB10	Dry	Dry	Dry	Dry	Dry
OFFSITE					
QCU	Dry	Dry	Dry	Dry	Dry. Gravel bed.
QCD	Dry	Dry	Dry	Dry	Dry
WCU	Dry	Dry	Dry	Dry	Dry
WCD	8.19	1560	38	<5	pH increased and EC decreased, TSS slightly increased and O&G unchanged. Pooled.

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

5.2.2 Discussion - Compliance / Non Compliance

Quarterly surface water monitoring was undertaken on 8 August 2019 with all onsite and offsite sampling undertaken in dry conditions represented by low or dry pools, which reflected on water quality. All water quality results were within long-term averages and the Site Water Management Plan trigger values.

5.3 SURFACE WATER DISCHARGES

There were no discharge events in June, July, August and September 2019.

5.3 WATER COMPLAINTS

There were no water release complaints during the period.

6.0 COMPLAINTS SUMMARY

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

#	Date	Issue	Complaint	Investigation	Action Taken
609	3/7/2019	Vibration	Complainant advised they felt the blast vibration at their workshop.	EO explained that all monitors indicated the blast was within compliance limits.	No further follow - up actions
610	5/7/2019	Blast	Complainant left a voice mail message on the EO phone advised they felt the blast at their residence. Requested results via email no call back required	EO confirmed blast was within compliance limits	EO emailed a copy of the results to the complainant.
611	8/7/2019	Blast	Complainant advised they felt the blast at their residence on the 3/07/2019	EO explained that all monitors indicated the blast was within compliance limits.	EO emailed a copy of the results to the complainant.
612	21/8/2019	Blast	Complainant left a voice mail message on the EO phone advised they felt the blast at their residence. Requested results via email.	EO left message on phone indicating blast did not trigger and would download results following manual trigger and send via e-mail.	EO emailed a copy of the results to the complainant.
613	21/8/2019	Blast	Complainant left a voice mail message on the EO phone advised they felt the blast at their residence. Did not want a call back, just to formally register complaint	EO confirmed blast was within compliance limits	No further follow-up actions
614	10/9/2019	Blast	Complainant left a voice mail message on the EO phone advised they felt the blast at their residence. Did not want a call back, just to formally register complaint	EO confirmed blast was within compliance limits	No further follow-up actions
615	17/9/2019	Dust	Complainant left a voice mail message on the EO phone wanting to register a complaint regarding dust leaving the mine site and heading towards town.	EO called back and spoke with Complainant notifying them that the entire pit, crusher and TLO had been shut down due to rapid wind increase and risk of dust.	EO checked dust monitors and confirmed no exceedances had been recorded. 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.

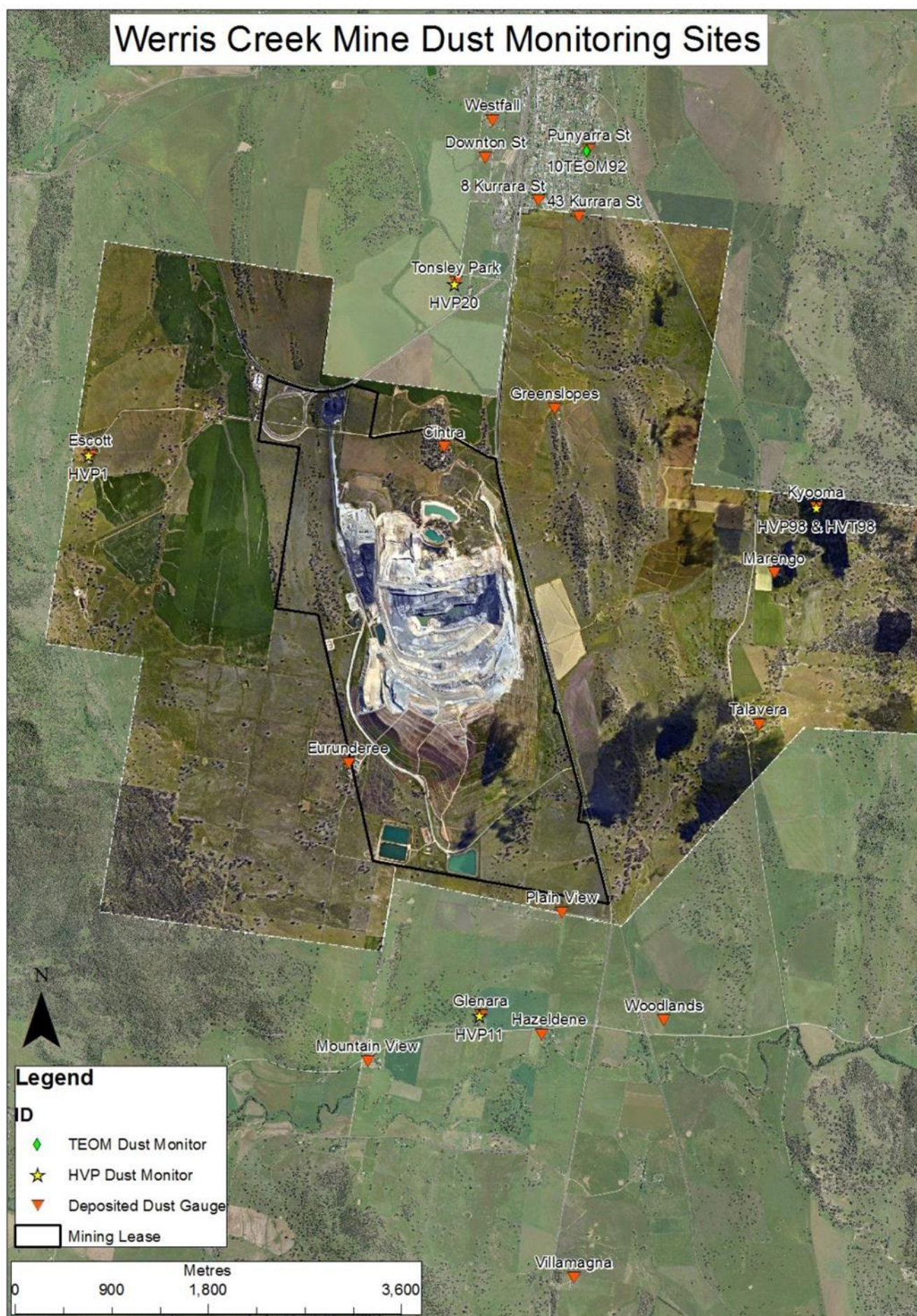


Figure 1 – WCC Dust Monitoring Locations



Figure 2– WCC Noise Monitoring Locations

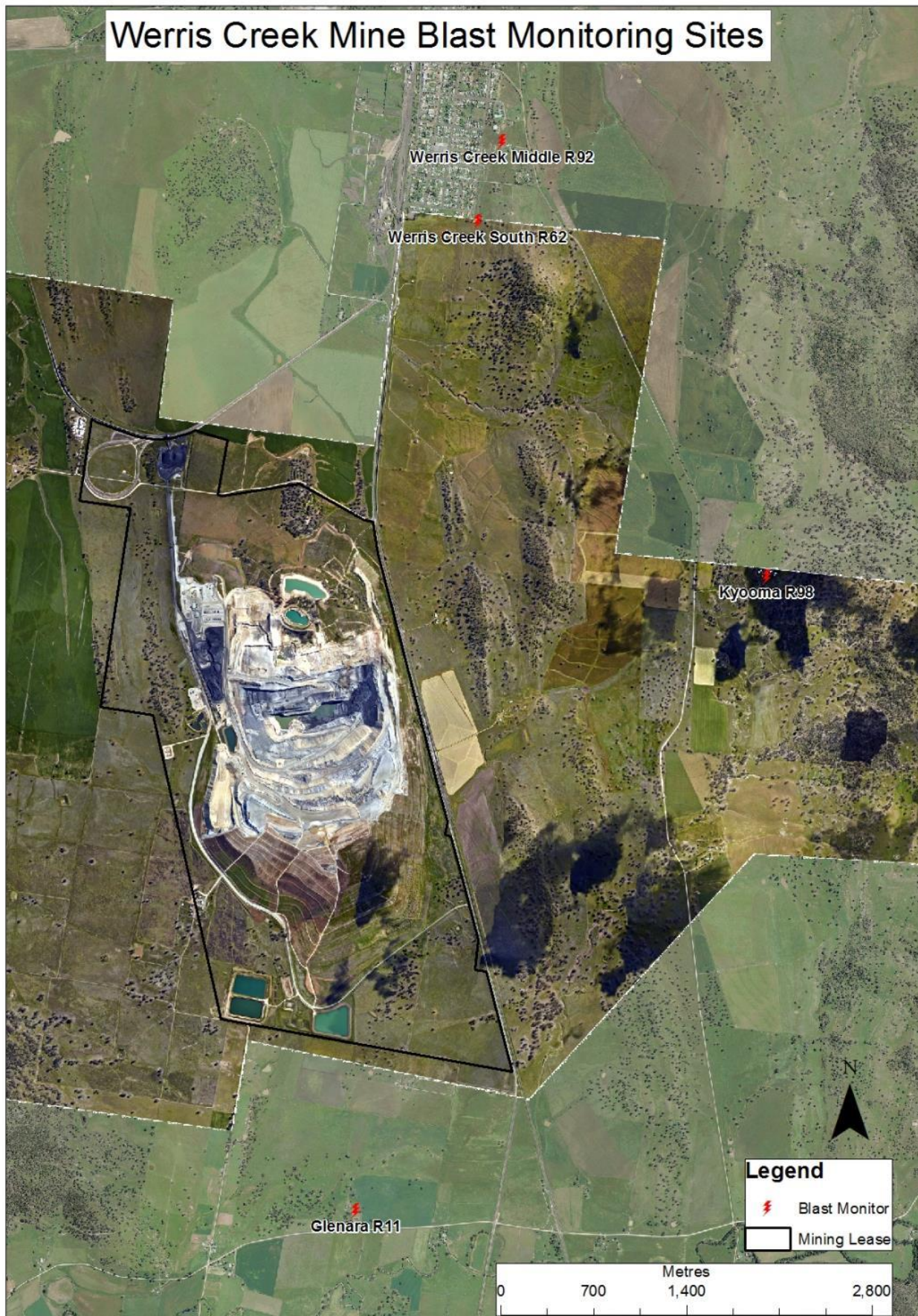


Figure 3 – WCC Blast Monitoring Locations

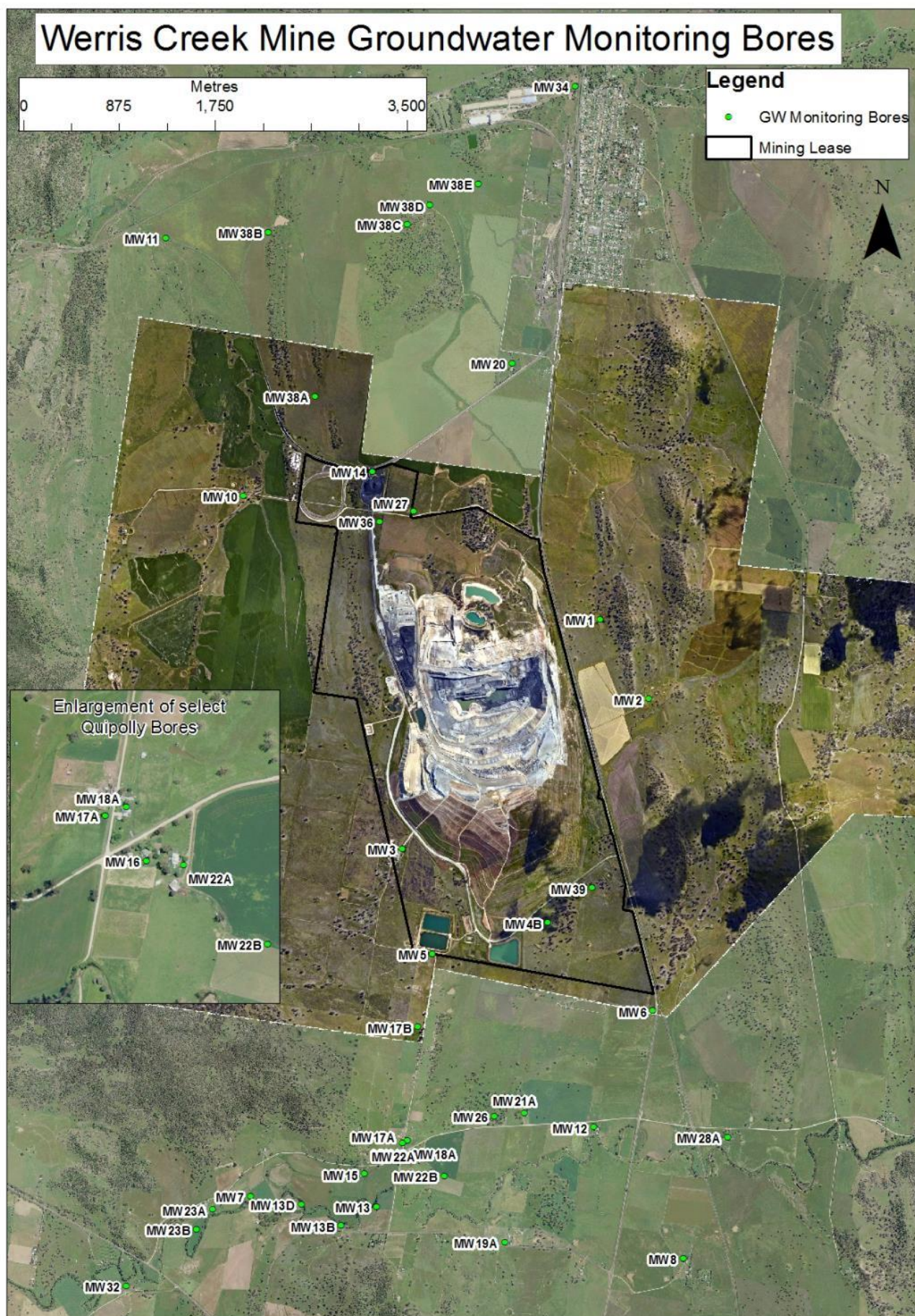


Figure 4 – WCC Groundwater Monitoring Locations

Werris Creek Coal



Figure 5 – WCC Surface Water Monitoring Locations

Appendix A

Follow up advice to information requested by CCC members at 51st CCC Meeting of 13th November 2019.

General Business Item:

7.1 “Alleged explosion at the mine on 12 October last after 1:00pm” – *WCC personnel to check and report back for these Minutes*

WCC Response: Werris Creek Coal have reviewed blasting records and can confirm that no blast was undertaken on the 12th October 2019 at Werris Creek Coal mine.

7.3 Water – who owns the licence and how much water is used each time the irrigator operates and how many irrigation events have occurred since it started? *WCC personnel to review details and report back for these Minutes.*

WCC Response: Werris Creek Coal holds Water Access Licences for the Werris Creek Coal mine. The quantity of water used by the centre pivot varies, however measured application is approximately 7.4ML (average) per operational event from December 2017 to November 2019. There have been 34 operational events during the same period.

Appendix B

----- Original message -----

From: Peter Wills <peterjameswills@hotmail.com>

Date: 6/11/19 11:25 am (GMT+10:00)

To: Gae Swain

Subject: Questions raised at the Whitehaven AGM, regarding Werris Creek operations

Attention Mrs Gae Swain, Chair Werris Creek CCC

Please see below query's that I would like answered in the November Werris Creek CCC meeting.

I recently attended the Whitehaven AGM in Sydney and I publicly asked the full Board of Whitehaven Coal a few questions regarding water management at the Werris Creek mine site, to which both the Chair Mark Vaile and CEO Paul Flynn partially responded to the queries I raised, out of my own interest, and on the community's behalf.

As a neighbour to the Werris Creek mine site, I and many of the mines mutual neighbours, and the broader community have gained very little faith in the honesty and transparency of the Company and Community Consultative Committee regarding Water management at the Werris Creek site. I spoke directly to the board of the discrepancy that many in the community see in usage of the pivot irrigator and it's calculable water usage, and the information we have received historically via the CCC.

In an early 2018 Werris Creek CCC meeting it is noted that Lynden Cini advised that the newly installed Pivot irrigator uses "4 ML per watering" and that "WHC own the infrastructure and pay for the costs as required"

Throughout this intensifying drought neighbours have sighted the irrigator "constantly" going round and round watering crops. Discussions between neighbours and local experts in matters relating to irrigation have mentioned that the irrigator would actually use in the vicinity of 3 times the stated water usage, disputing the original amount advised from Mr Cini.

I have a series of questions I would like the Company to answer in an open and transparent manner to the community, for peace of mind in a currently highly pressurised drought environment.

1) At the AGM I challenged the water usage numbers provided of the Whitehaven owned pivot irrigator, to which the meeting Chair Mark Vaile said they will take that question on notice.

I would like to see an answer from Whitehaven now that the Chairman has been asked and deferred the answer.

Please advise the actual water usage from Dec 2017 install. Please indicate the number of irrigator rotations with water usage for each rotation.

2) Mr Flynn mentioned the "primary use of water is dust suppression" in relation to the mines onsite use.

If this water is being dispersed in its final use into a concentrated area of distribution, that being via the irrigator onto the property 'Plain View' is there any concern for increased levels of coal dust on each crop planted with the lack of rainfall, or building up in the soil over a small concentrated area, over a longer period of time?

What does the testing regime of this water quality that moves from the pit to irrigator entail.

3) Paul Flynn mentioned at the AGM that when the abundance of water and its dispersement was debated and finally accepted by Government authority that it could be used offsite "by other neighbouring people" Mr Flynn said "There were very few people who came forward and take that water, and principally it involved the investment in the infrastructure". Mr Flynn went on to say "If others would like to take that step to invest in infrastructure, lets have a chat". Mr Flynn's final comments to the AGM in my line of questioning was "the onus is on us to convey that water to those who need it"

With an unprecedented number of Quipolly basin water users investing to secure deeper water resources in the form of drilling new bores, some unsuccessfully, can any of the Quipolly basin water users source this void/seepage water via tanker transport to fill existing investment infrastructure such as dams or tanks for stock usage, or in the least as an on farm source of water for risk management moving into the high risk fire season this summer?

4) Mr Flynn told the AGM in regards to the use of the irrigator "What that farmer uses that water for is up to that farmer" "We've given that water to that farmer for use on that property" "If they're not using that in an efficient fashion, the onus is not on us to ensure that"

Can Whitehaven please explain what "given" means in terms of this relationship. Are you on-charging for this water?

Can Whitehaven please explain why they don't think they need to ensure the water they intercept in the pit shouldn't be used in the most efficient manner, in the current climate of severe lack of water availability in the Quipolly basin.

If Mr Flynn thinks its up to the farmer to decide how he or she uses that water, Whitehaven won't mind neighbouring farmers filling water storage options will they?

When I recently attended a Water NSW irrigators forum in Werris Creek, local water irrigation zones were reviewed for recent usage, and reviewed for the sustainable security of water availability in the each zone. When the Quipolly aquifer zone was mentioned it was dismissed for discussion by the

room "as there's no water left in that zone because of the mine". This is the perceived view of the farming community of your company and your mine.

This letter is an opportunity for the Werris Creek mine and the CCC to regain some semblance of reputation by clearly and concisely answering these important questions that our community have.

Regards

Peter Wills

0417 333 669

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