Werris Creek Coal Community Consultative Committee

MINUTES

43rd Meeting of the Committee, 31st May 2017.

Werris Creek Coal (WCC) Community Consultative Committee (CCC) met on site at Werris Creek Coal Mine from 9:30am for the quarterly meeting followed by a pit tour of the mine site, inspecting operations.

Meeting Opened at 9.45am.

1. Record of Attendance:

Present

Lindsay Bridge	Community Representative
Mike Lomax	Community Representative
James O'Brian	Community Representative
Rod Hicks	WCC Operations Manager
Shannon Reid	WCC Site Clerk and Minute Taker
Lynden Cini	WCC Environmental Officer
Col Stewart	Community Member
Cr Virginia Black	LPSC Councillor
Noel Taylor	Community Representative
Donna Ausling	LPSC Director Environmental & Economic Development Services
Gae Swain	Independent Chairperson

Apologies

Dave Goldman	Community Representative

Note: Previous minutes had a typo error where Noel Taylor who was not present at the meeting seconded the minutes. This should have been Moved: Lindsay Seconded: James

Moved: James. Seconded: Lindsay. Motion Carried.

2. Declaration of Pecuniary or Other Interests

None.

3. New Matters for Discussion under General Business

None

4. Minutes of Previous Meeting

Minutes of the previous meeting were reviewed by the committee. Motion moved to accept the meeting minutes as a true and accurate representation of business conducted on that day.

Moved: Lindsay. Seconded: Mike. Motion carried.

5. Matters Arising

a) Actions from Previous Meeting

Donna – Regarding the volume of water released overflowing from Quipolly Dam. Donna contacted the water service manager. The only data available is the environmental flow. Volume of water that overflows from the dam wall it's not currently monitored.

James – Regarding Blast on 3/2/2017.

LC. Yes there was a blast on the 3/2/2017. Have been through the data (data and blast pictures issued to the committee members).

No complaints were made and the blast was in compliance.

James – content with the response.

b) Other Matters Arising
None

6. Environmental Monitoring Report

LC provided commentary on each aspect of the report.

Motion to accept the report. Moved: Col. Seconded: Noel. Motion Carried.

7. General Business

NT- How are you going with the monitoring bore down near Blackwells?
LC - Agreement and approval is sitting with council. Access plan is in place. DPI have advised where they would like the bore.

ML - Any update on the offsite water?
LC – Water management planning waiting to be approved.

Meeting Closed 10.20am.

Next Meeting scheduled for Wednesday 30th August 2017

No site tour undertaken.

Copy to:

All Committee members

The minutes will also be posted on the Whitehaven Coal Website
http://www.whitehavencoal.com.au/environment/werris_creek_mine_environmental_management.cfm

WERRIS CREEK COAL PTY LTD

QUARTERLY ENVIRONMENTAL MONITORING REPORT

February, March and April 2017

This Environmental Monitoring Report covers the period 1st February to 30th April 2017 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**.

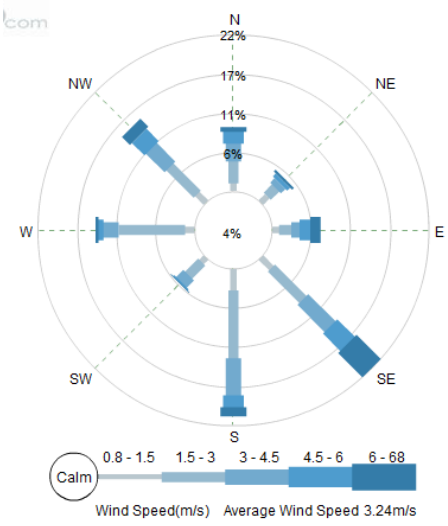
CONTENTS

1.0 METEOROLOGY

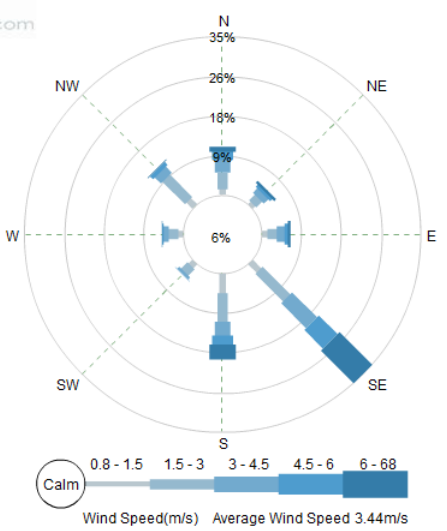
1.1 WEATHER STATION

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 three months. Monthly totals during the quarter were similar to the historical average in April, below in February and well above in March. Directional wind data, presented in the wind-rose figures below, indicate the prevailing wind direction was predominantly from the south to southeast.

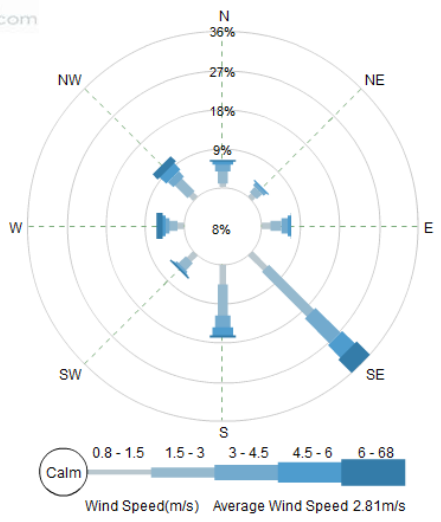
Month	Rainfall *(mm)*		
	Onsite	***Historical Average***	***2017 Total***
February 2017	28.0	71.0	93.0
March 2017	132.4	52.9	225.4
April 2017	24.8	32.6	250.2



February 2017



March 2017



April 2017

2.0 AIR QUALITY

2.1 HVAS (PM_{10}) and TEOM (PM_{10} & $PM_{2.5}$)

WCC operates five High Volume Air Samplers (HVAS) measuring particulate matter less than 10 micron (PM_{10}) 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 ($\mu g/m^3$) of air sampled. In addition, WCC operates a Tapered Element Oscillating Microbalance (TEOM) monitor in Werris Creek measuring real time PM_{10} 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 three months are provided in the table below.

Monitor Location	Daily Maximum *($\mu g/m^3$)*	February 2017 *($\mu g/m^3$)*	March 2017 *($\mu g/m^3$)*	April 2017 *($\mu g/m^3$)*	2017 Average *(g/m^2/month)*	Criteria *($\mu g/m^3$)*	
						Annual	Daily
$PM_{2.5}$ – TEOM92 "Werris Creek"	**35.5**	9.8	2.5	5.3	6.0	8	25
PM_{10} – TEOM92 "Werris Creek"	45.8	17.1	5.9	8.9	10.7	30	50
PM_{10} – HVP20 "Tonsley Park"	27.8	18.1	6.7	8.3	12.8	30	50
PM_{10} - HVP1 "Escott"	20.4	15.3	8.0	13.3	18.9	30	50
PM_{10} – HVP11 "Glenara"	37.6	29.8	8.0	13.3	18.9	30	50
PM_{10} – HVP98 "Kyooma"	21.8	14.8	4.8	4.6	9.1	30	50
TSP – HVT98 "Kyooma"	33.8	26.3	10.3	11.6	18.4	90	-

Yellow Bold – Elevated dust level.

2.1.2 Discussion - Compliance / Non Compliance

All TSP and PM10 and PM2.5 dust results were within criteria during the period with the exception of two PM2.5 results measured at "TEOM92 "Werris Creek"", on the 12th and 13th February 2017. On both occasions the elevated results were affected by localised bushfires and 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/m^2/month). Dust monitoring locations are identified in **Figure 1**.

2.2.1 Monitoring Data Results

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

Monitor Location	February 2017 *(g/m^2/month)*	March 2017 *(g/m^2/month)*	April 2017 *(g/m^2/month)*	2017 Average *(g/m^2/month)*	Annual Criteria *(g/m^2/month)*
DG1 "Escott"	0.3	0.4	0.5	0.5	4.0
DG2 "Cintra"	3.1	**5.0**	2.7	3.6	4.0
DG3 "Eurunderee"	2.7	0.4	2.4	1.9	4.0
DG5 "Railway View"	2.2	1.3	1.2	1.8	4.0
DG9 "Marengo"	0.9	0.2	0.1	0.5	4.0
DG11 "Glenara"	1.4	0.3	0.5	1.0	4.0
DG14 "Greenslopes"	0.7	0.4	0.4	0.9	4.0
DG15 "Plain View"	1.0	0.4	0.2	0.7	4.0
DG17 "Woodlands"	1.4	1.4	0.3	1.0	4.0
DG20 "Tonsley Park"	0.8	1.0	0.2	0.8	4.0
DG22 "Mountain View"	0.8	1.0	0.3	0.8	4.0
DG24 "Hazeldene"	1.0	3.3	1.0	1.8	4.0
DG34 8 Kurrara St	**17.8**	**7.5**	0.3	**11.3**	4.0
DG62 Werris Creek South	2.1	1.1	0.4	1.1	4.0
DG92 Werris Creek Centre	1.0	0.4	0.4	0.6	4.0
DG96 "Talavera"	NS	NS	NS	NA	4.0
DG98 "Kyooma"	0.7	0.5	0.3	0.7	4.0
DG101 "Westfall"	2.0	1.3	0.5	1.6	4.0
DG103 West Street	1.1	0.5	0.6	0.8	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.

2.2.2 Discussion - Compliance / Non Compliance

All monthly dust deposition gauge results were below the annual criteria of 4.0g/m^2/month throughout the period with the exception of DG34 (8 Kurrara St) which had elevated dust levels in February and March 2017 and a rolling 2017 average above criteria. Consistently high dust levels at this gauge and low deposited dust levels at nearby gauges indicate a localized source of dust generation, unrelated to activities at Werris Creek Coal Mine. DG2 had one anomalous high dust deposition measurement during March 2017 deposited dust levels remained low at nearby gauges, also indicating a localised source of dust, 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	February 2017		March 2017		April 2017		2017 Average *(g/m^2/month)*
	g/m^2/month	*% Coal*	*g/m^2/month*	*% Coal*	*g/m^2/month*	*% Coal*	
DDW30	1.0	<5%	1.5	<5%	0.4	5%	1.0
DDW20	1.2	10%	0.7	<5%	0.4	5%	0.8
DDW13	2.5	<5%	0.7	<5%	0.5	5%	1.2
Train Line							
DDE13	1.2	<5%	2.2	<5%	0.6	5%	1.3

DDE20	1.2	<5%	1.2	<5%	0.5	5%	1.0
DDE30	4.6*	<5%	3.4*	<5%	0.4	10%	0.4

* - 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/m^2/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 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 16st February 2017

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	21	40
D	**"Hazeldene"** R24	Inaudible	37	23	37
E	**"Railway Cottage"** R12	Inaudible#	38	28	38
F	**"Talavera"** R96	Inaudible#	38	31#	37
H	**"Kyooma"** R98	22	40	27	40
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) $L_{eq\ 15min}$

Wednesday 22nd and Thursday 23rd March 2017

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	28	35
B	**West Quipolly** (R7*, R8*,R9* & R22*)	<20	40	31	40
C	**Central Quipolly**(R10*,R11*)	<30#	40	Inaudible#	40
D	**"Hazeldene"** R24	NM	37	30#	37
E	**"Railway Cottage"** R12	Inaudible#	38	NM#	38
F	**"Talavera"** R96	NM#	38	Inaudible#	37
H	**"Kyooma"** R98	Inaudible#	40	<20#	40
I	**Kurrara St, WC** R57	Inaudible#	35	<30	35
J	**Coronation Ave, WC**	Inaudible#	35	Inaudible#	35
K	**Alco Park** (R21*)	Inaudible	40	<30#	40
L	**West St, WC** (R103)	Inaudible	35	<30#	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

^Multiple evening and night measurement was taken, for reporting purposes the highest reading of the period was used.

Thursday 27th and Friday 28th April 2017

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	<20#	40
I	**Kurrara St, WC** R57	Inaudible#	35	Inaudible	35
J	**Coronation Ave, WC**	Inaudible	35	30	35
K	**Alco Park** (R21*)	Inaudible#	40	32	40
L	**West St, WC** (R103)	Inaudible#	35	34	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

^Multiple evening and night measurement was taken, for reporting purposes the highest reading of the period was used.

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 thirty-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 115dBL (and up to 120dBL 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 three months are provided below.

February 2017		"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		0.15	98.6	0.66	100.0	0.29	100.2	0.25	98.4
Monthly Maximum		0.29	100.5	1.28	105.4	0.55	110.6	0.61	108.5
Annual Average		0.15	98.44	0.64	100.17	0.35	100.43	0.22	99.08
Criteria		**5**	**115**	**5**	**115**	**5**	**115**	**5**	**115**
% >115dB(L) or 5mm/s	**Rolling Ave**	0.00%	0.81%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Reporting Year	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

March 2017		"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	101.5	0.59	102.1	0.35	99.7	0.19	100.7
Monthly Maximum		0.23	108.7	1.25	111.2	0.85	114.4	0.35	116.6
Annual Average		0.15	99.46	0.62	100.82	0.35	100.20	0.21	99.61
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	**Rolling Ave**	0.00%	0.81%	0.00%	0.00%	0.00%	0.00%	0.00%	0.81%
	Reporting Year	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.86%

April 2017		"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		0.16	103.2	0.92	101.4	0.56	98.1	0.28	99.2
Monthly Maximum		0.20	109.1	1.52	107.0	0.90	107.6	0.43	107.0
Annual Average		0.15	100.40	0.70	100.97	0.40	99.68	0.23	99.52
Criteria		5	115	5	115	5	115	5	115
% >115dB(L) or 5mm/s	**Rolling Ave**	0.00%	0.77%	0.00%	0.00%	0.00%	0.00%	0.00%	0.77%
	Reporting Year	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.38%

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) one blast was above the 95th percentile limits of 115dB(L) at Werris Creek Mid R92 on the 15 March 2017.

4.2 BLAST COMPLAINTS

There were two 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 2nd, 3rd and 7th February 2017 and 7th to 9th and 13th March 2017. 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		February-17	
		mbgl	%
Werrie Basalt near WCC	**MW1**	Dry	
	MW2	32.08	-1%
	MW3	19.14	0%
	MW4B	14.94	-2%
	MW5	11.86	0%
	MW6	16.2	0%
	MW27*	54.55	0%
	MW36A	21.4	-1%
	MW36B	21.36	-1%
Werrie Basalt	**MW8***	14.61	-3%
	MW10	13.33	0%
	MW14	17.23	-2%
	MW17B*	11.72	0%
	MW19A*	10.44	-13%
	MW20*	21.62	-1%
	MW38A	12.71	-2%
	MW38B*	9.44	-1%
	MW38C*	22.21	0%
	MW38E*	9.27	-1%
#[1]	**MW24A***	14.48	-1%
	MW29*	11.26	-1%
Quipolly Alluvium	**MW12***	10.17	-5%
	MW13*	5.84	-2%
	MW13B*	4.13	-4%
	MW13D*	4.89	-5%
	MW15*	5.42	-3%
	MW16*	6.18	-2%
	MW17A*	5.31	1%
	MW18A*	5.07	-1%
	MW21A*	8.81	-2%
	MW22A*	6.30	-2%
	MW22B*	6.49	-3%
	MW23A*	3.92	0%
	MW23B*	4.68	-14%
	MW26B*	7.52	-2%
	MW28A*	10.61	-6%
	MW32*	3.97	-1%
#[2]	**MW34***	10.52	-7%

Site		March-17	
		mbgl	%
Werrie Basalt near WCC	**MW1**	Dry	
	MW2	32.82	-2%
	MW3	19.15	0%
	MW4B	14.45	3%
	MW5	11.89	0%
	MW6	16.37	-1%
	MW27*	54.46	0%
	MW36A	21.3	0%
	MW36B	21.15	1%
Werrie Basalt	**MW8***	15.08	-3%
	MW10	13.36	0%
	MW14	17.89	-2%
	MW17B*	11.79	-1%
	MW19A*	9.73	7%
	MW20*	21.54	0%
	MW38A	12.43	2%
	MW38B*	9.49	-1%
	MW38C*	22.46	-1%
	MW38E*	9.47	-2%
#[1]	**MW24A***	14.39	1%
	MW29*	11.59	-3%
Quipolly Alluvium	**MW12***	10.48	-3%
	MW13*	5.98	-2%
	MW13B*	4.47	-8%
	MW13D*	4.88	0%
	MW15*	5.56	-3%
	MW16*	6.33	-2%
	MW17A*	5.43	-2%
	MW18A*	5.27	-4%
	MW21A*	9.02	-2%
	MW22A*	6.49	-3%
	MW22B*	6.78	-4%
	MW23A*	3.92	0%
	MW23B*	4.35	8%
	MW26B*	7.71	-2%
	MW28A*	11.29	-6%
	MW32*	4.02	-1%
#[2]	**MW34***	10.6	-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 general sustained or decreased water levels during February and March.

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 27th February 2017. 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.

Site	pH	EC	TSS	O&G	Change from Previous Quarter or General Comments
ONSITE					
SB2	Dry	Dry	Dry	Dry	Dry. Vegetation growing on bottom.
SB9	Dry	Dry	Dry	Dry	Dry. Just grass
SB10	Dry	Dry	Dry	Dry	Dry
OFFSITE					
QCU	Dry	Dry	Dry	Dry	Dry
QCD	8.0	1065	14	<5	pH and EC slightly increased, TSS was stable and O&G unchanged. Flowing gently.
WCU	Dry	Dry	Dry	Dry	Dry
WCD	8.2	1345	35	7	pH and EC slightly increased, TSS increased from 20 to 35 and O&G also increased. Field sheet notes water 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 27th February 2017 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 February, March and April 2017.

5.3 WATER COMPLAINTS

There were no water release complaints during the period.

6.0 COMPLAINTS SUMMARY

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

#	Date	Issue	Complaint	Investigation	Action Taken
546	6/2/2017	Blast	Complainant advised they felt the blast at their residence.	WCC blast 015 fired at 1.02pm on the 6 February. Monitoring results were under compliance limits at all locations.	EO responded via email confirming blast was within limits and providing a copy of the blast data.
547	24/2/2017	Dust	Complainant advised they had viewed increased dust levels around the WCC pit.	EO discussed with operational team. Multiple areas of operations were shutdown prior to receiving complaint. Further areas shutdown post complaint. Increased water cart circuits to problematic areas.	EO advised the complainant of the operational processes in place to manage the dust lift off on site.
548	1/3/2017	Blast	Complainant advised they felt the blast at their residence.	WCC blast 024 fired at 1.29pm on the 1st March. Monitoring results were within compliance limits at all locations.	EO advised blast was in compliance and emailed a copy of the results to the complainant.
549	17/4/2017	Odour	Complainant advised they could detect an odour of burning coal and suspected it to be coming from WCC.	The underground workings at WCC do spontaneously combust from time to time. No obvious nuisance emissions could be detected upon inspection.	A follow up phone number was provided however, numerous calls were made by the EO to the complainant and voice message left. The complainant did not respond.

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.

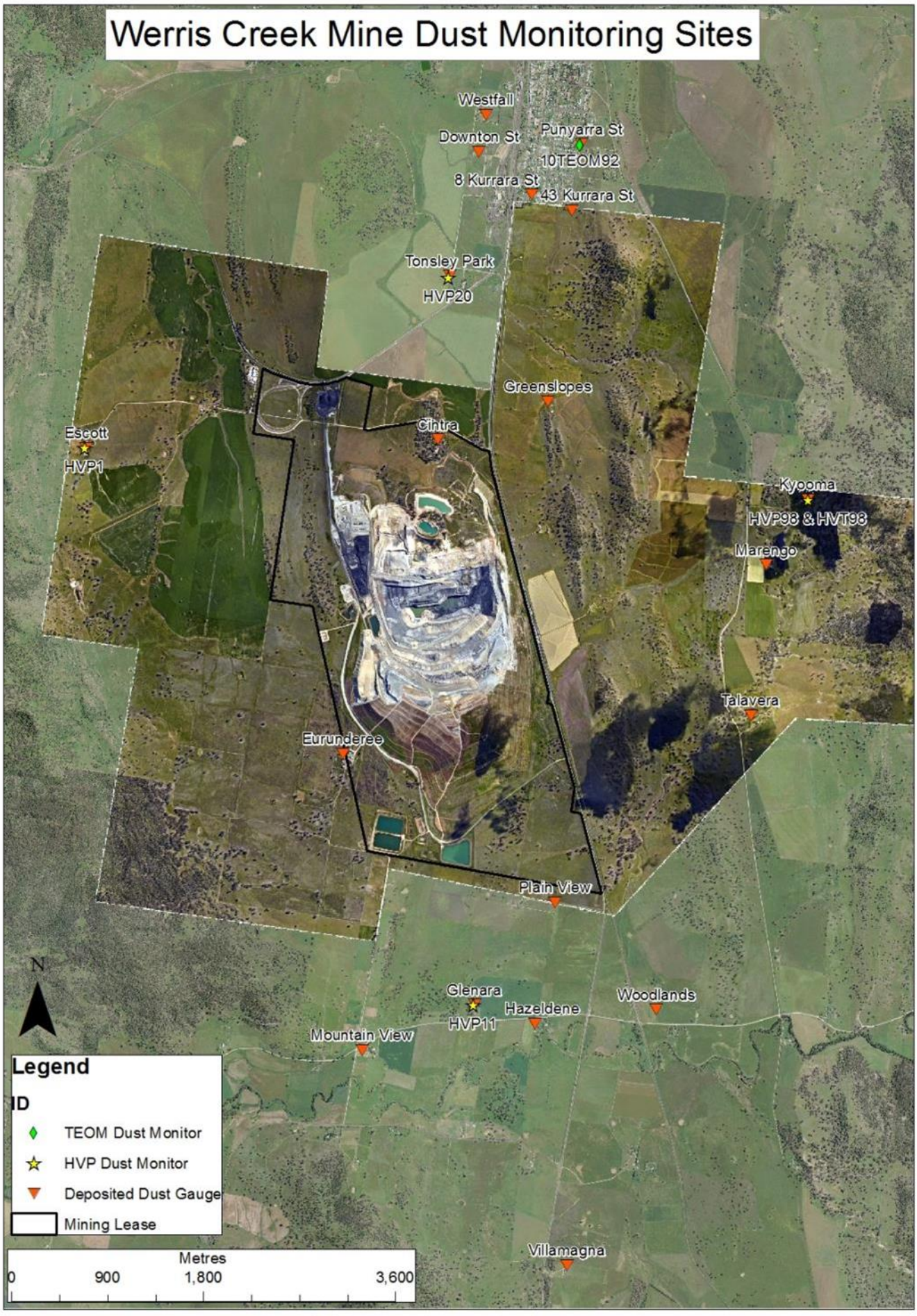


Figure 1 – WCC Dust Monitoring Locations

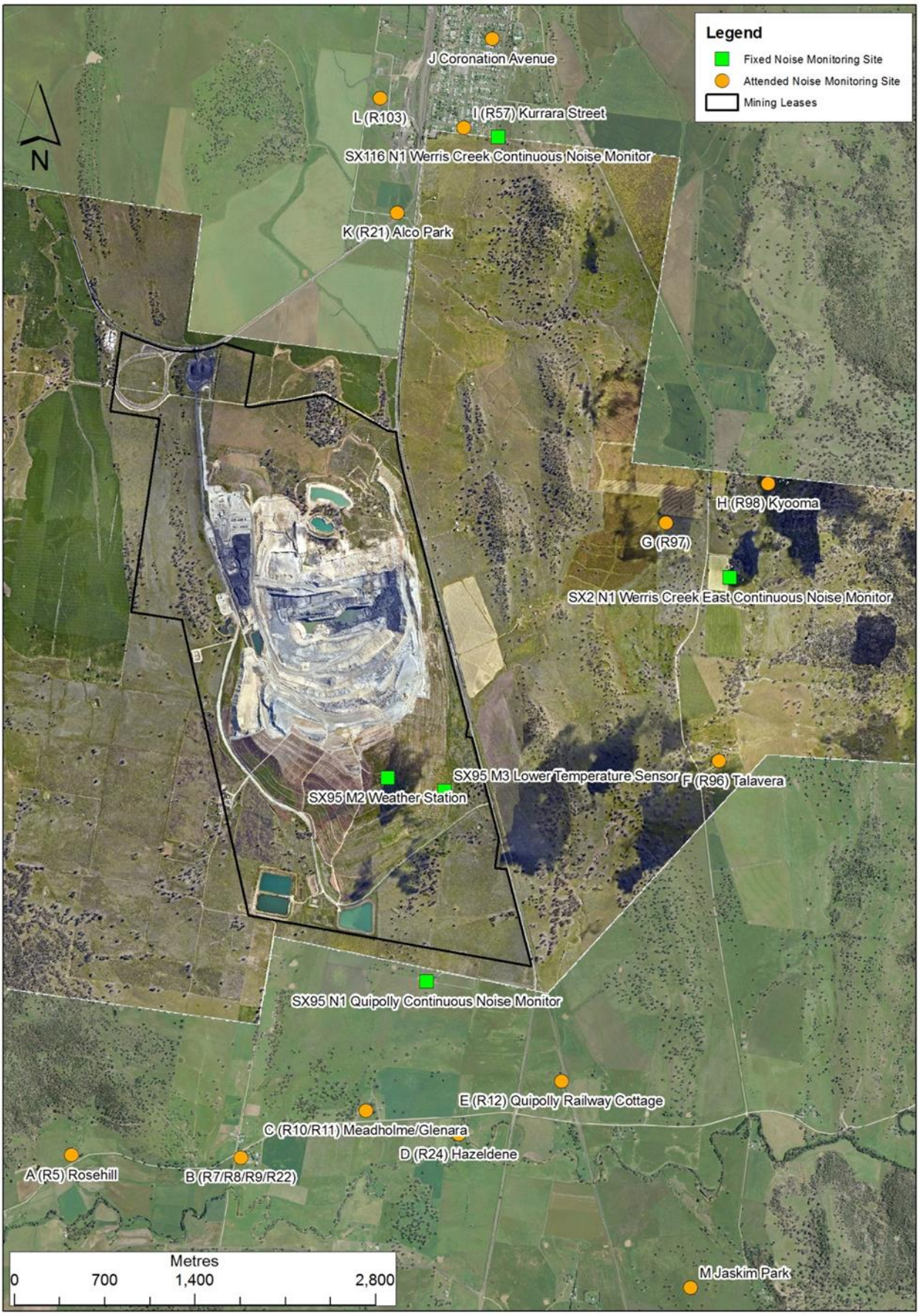


Figure 2 – WCC Noise Monitoring Locations

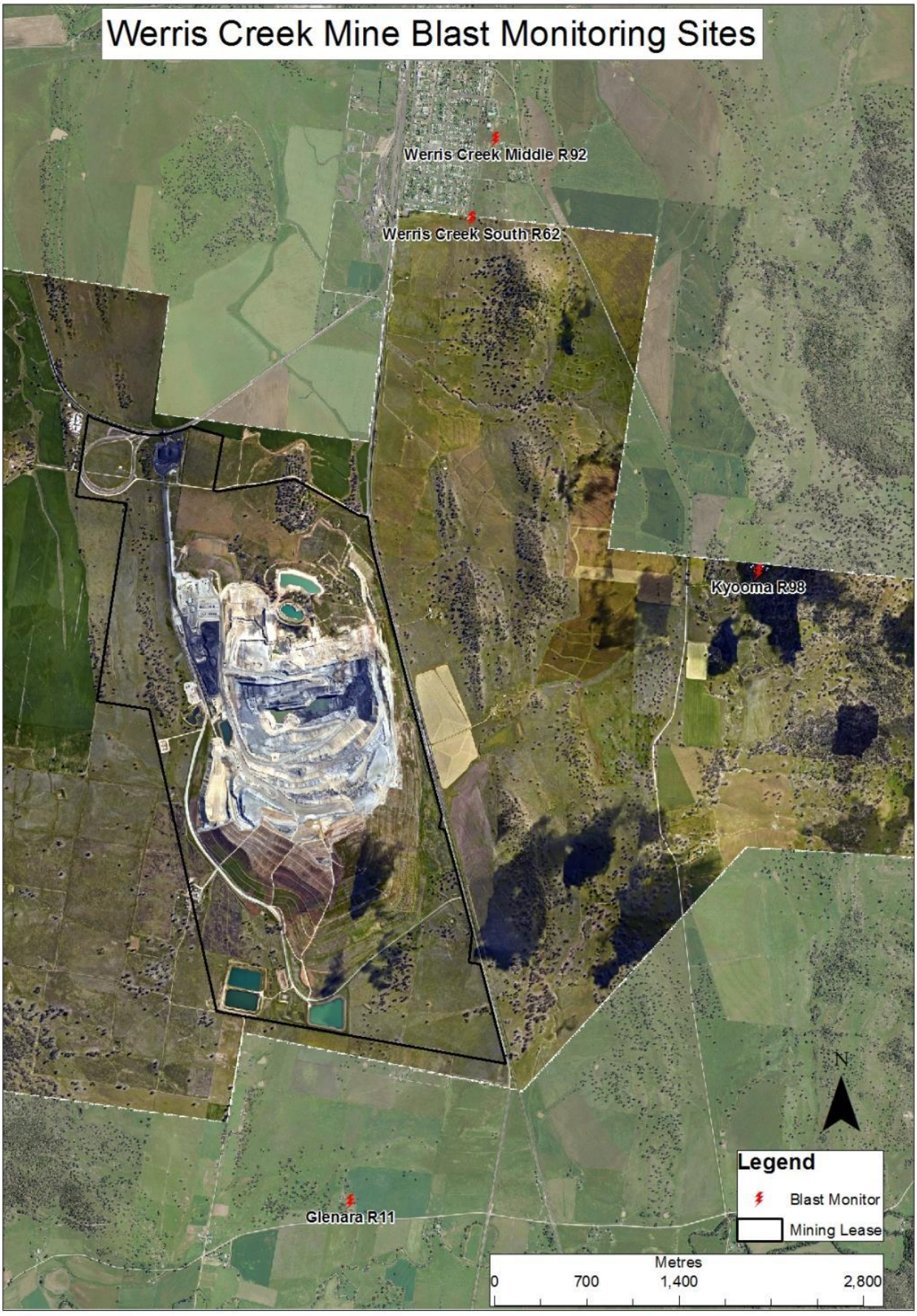


Figure 3 – WCC Blast Monitoring Locations

Figure 4 – WCC Groundwater Monitoring Locations

Figure 5 – WCC Surface Water Monitoring Locations