Maules Creek Coal Mine
Community Consultative Committee
Meeting #46

Environmental Monitoring Report
For the Q2 period, April – June 2024 January – March 2024

Attended Noise Monitoring

Maules Creek Coal (MCC) engaged an independent acoustic consultant to conduct LAeq (15minutes) and LA1 (1 minute) attended noise monitoring at six monitoring locations on site.

A. NOISE GENERATED BY MCCM AGAINST OPERATIONAL DAY & NIGHT NOISE CRITERIA;April – June 2024 .

The results show that MCCM is within EPL 20221 compliance limits, that operations did not exceed the applicable; LAeq (15minute) 35dB Criteria, LA1 (1Minute) 45dB Criteria and the EPA's Noise Policy for Industry compliance guidelines.

Table 1 –April Noise Monitoring

Location	Start date and Time	Wind		Stability class	Very enhancing? [1]	Limits, dB [1]		Site levels, dB [2]		Exceedances, dB	
		Speed m/s	Direction [3]			$L_{Aeq,15minute}$	L_{Amax}	$L_{Aeq,15minute}$	L_{Amax}	$L_{Aeq,15minute}$	L_{Amax}
NM1	1/04/2024 22:30	0.5	216	F	No	35	45	IA	IA	Nil	Nil
NM2	1/04/2024 23:30	0.3	0	F	No	39	45	IA	IA	Nil	Nil
NM3	2/04/2024 0:20	0.5	186	F	No	35	45	IA	IA	Nil	Nil
NM4	1/04/2024 23:00	0.5	140	F	No	35	45	IA	IA	Nil	Nil
NM5	1/04/2024 22:00	1.1	209	F	No	35	45	<25	30	Nil	Nil
NM6	1/04/2024 23:55	0.3	0	F	No	35	45	IA	IA	Nil	Nil

Notes: 1. Noise limits are adjusted by +5 dB during 'very enhancing meteorological conditions' in accordance with the NPfI.
2. Site-only LAeq,15minute, includes modifying factor penalties if applicable.
3. Degrees magnetic north, "-" indicates calm conditions.

Table 2 – May Noise Monitoring

Location	Start date and Time	Wind		Stability class	Very enhancing? [1]	Limits, dB [1]		Site levels, dB [2]		Exceedances, dB	
		Speed m/s	Direction [3]			$L_{Aeq,15minute}$	L_{Amax}	$L_{Aeq,15minute}$	L_{Amax}	$L_{Aeq,15minute}$	L_{Amax}
NM1	1/05/2024 22:30	3.3	124	D	Yes	40	50	IA	IA	Nil	Nil
NM2	1/05/2024 23:30	2.3	141	E	No	39	45	<30	<30	Nil	Nil
NM3	2/05/2024 00:21	1.0	151	F	No	35	45	33	36	Nil	Nil
NM4	1/05/2024 23:00	2.8	135	D	No	35	45	IA	IA	Nil	Nil
NM5	1/05/2024 22:00	3.2	122	D	Yes	40	50	IA	IA	Nil	Nil
NM6	1/05/2024 23:55	1.6	148	E	No	35	45	IA	IA	Nil	Nil

Notes: 1. Noise limits are adjusted by +5 dB during 'very enhancing meteorological conditions' in accordance with the NPfI.
2. Site-only LAeq,15minute, includes modifying factor penalties if applicable.
3. Degrees magnetic north, "-" indicates calm conditions.

Table 3 – June Noise Monitoring

Location	Start date and time	Wind		Stability class	Very enhancing? [1]	Limits, dB [1]		Site levels, dB [2]		Exceedances, dB	
		Speed m/s	Direction [3]			$L_{Aeq,15minute}$	L_{Amax}	$L_{Aeq,15minute}$	L_{Amax}	$L_{Aeq,15minute}$	L_{Amax}
NM1	10/06/2024 22:30	0.6	29	F	No	35	45	<25	<25	Nil	Nil
NM2	10/06/2024 23:30	1.1	213	F	No	39	45	34	36	Nil	Nil
NM3	11/06/2024 00:20	0.5	227	F	No	35	45	24	29	Nil	Nil
NM4	10/06/2024 23:00	0.3	35	F	No	35	45	<25	<25	Nil	Nil
NM5	10/06/2024 22:00	0.5	135	F	No	35	45	30	33	Nil	Nil
NM6	10/06/2024 23:55	0.3	0	F	No	35	45	<20	23	Nil	Nil

Notes: 1. Noise limits are adjusted by +5 dB during 'very enhancing meteorological conditions' in accordance with the NPfI.
2. Site-only LAeq,15minute, includes modifying factor penalties if applicable.
3. Degrees magnetic north, "-" indicates calm conditions.

Wind Direction during Attended Monitoring

Wind direction data is collected from the Maule's Creek Coal Mine (MCCM) Automated Weather Station (AWS). Wind data for the duration of the attended monitoring assessment, recorded at the MCCM AWS is presented in the table below.

Table 4 - Prevailing Wind Direction

Monitoring Date	Prevailing Wind Direction
April	SSE
May	SE
June	SSW

Blast Monitoring

There was 25 blasts at MCCM during Q2 2024. All blast monitoring results recorded within the reporting period have complied with applicable overpressure and ground vibration limits specified in the respective approvals.

Table 5 – Blast Results Summary

Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Noise	dB	All	25	92.41	109.90	120	No
Vibration	mm/s		25	0.10	0.26	10	No

Air Quality

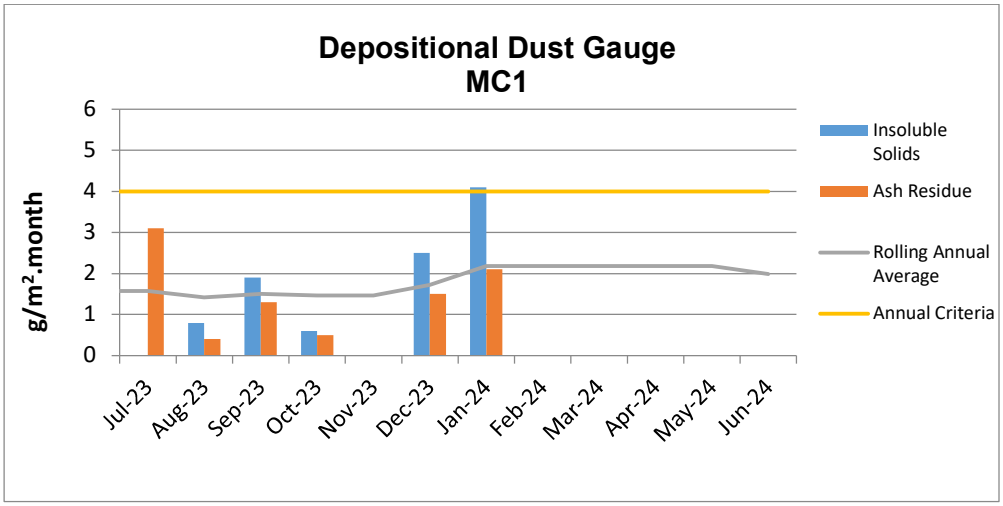
A. Total Depositional Dust

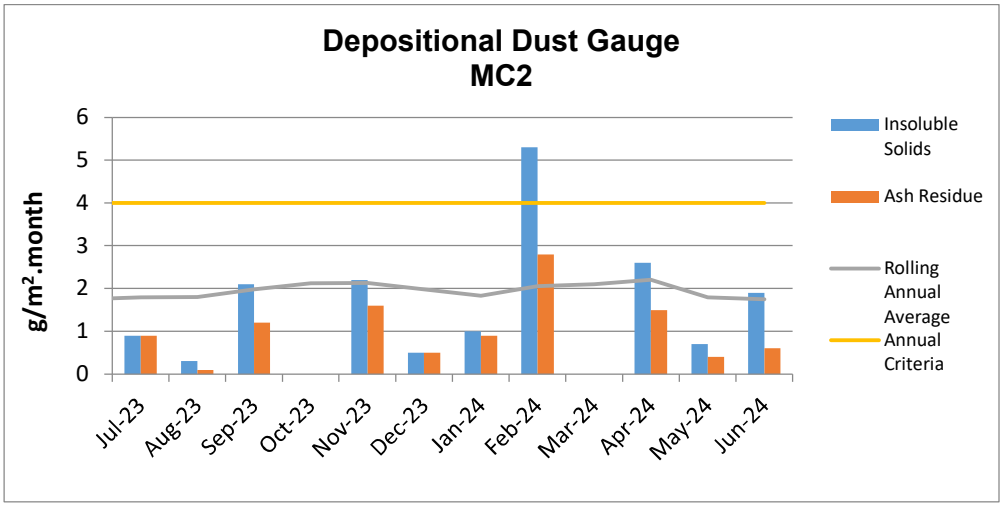
The 12 monthly rolling annual average remains below the relevant Project Approval (PA 10_0138) criteria of 4g/m^2/month for the respective monitoring points.

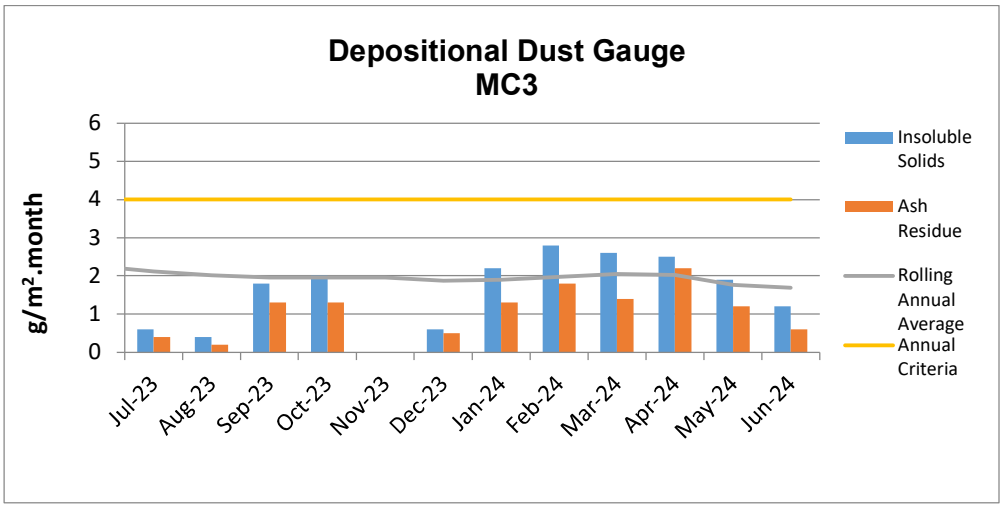
Table 6 – Deposited Dust Gauge Results [g/m^2/month]

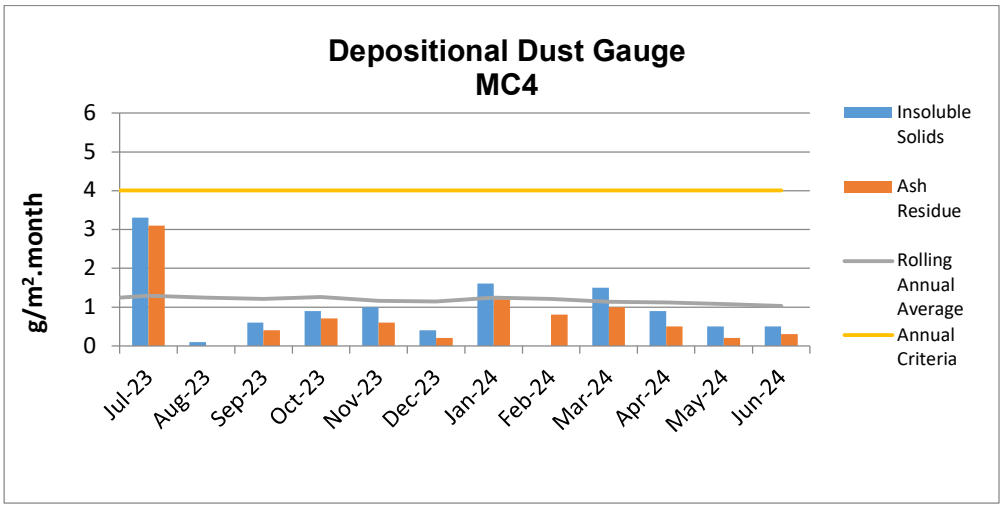
MONTH	MC1	MC2	MC3	MC4
April	21.5c	2.6	2.5	1.5
May	7.2c	0.7	1.9	0.5
June	7.8c	1.9	1.2	0.5
12 MONTH ROLLING AVERAGE	**2.0**	**1.9**	**1.2**	**0.5**

[c] *samples contaminated by bird dropping, decomposed insects or vegetable matter.*







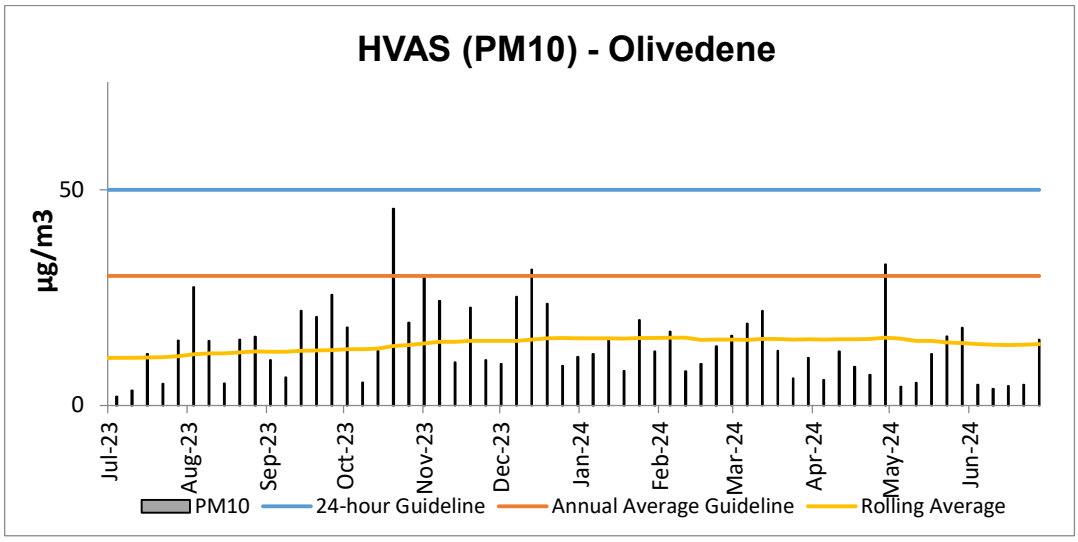


** Blank cells indicate sample periods where the sample has been contaminated and excluded from the results tables due to contaminated material (insect larvae, bird droppings, vegetation etc.).*

B. High Volume Air Sampling (HVAS)

The HVAS monitor is located on the property '*Olivedene*,' a mine owned property on Therribri Road. During past 12 months, there have been no exceedances of the 24-hour average of 50 µg/m^3.

HVAS PM_{10} Rolling Annual Average as of June was **14.2 µg/m^3**, which is below the Annual Average Guideline of 30 µg/m^3.



C. TEOM - PM10 Results

The annual rolling average for PM10 at the Maules Creek Coal for TEOM1 was **10.9 µg/m³** and at TEOM3 was **13.6 µg/m³** these are both below the Project Approval annual average criteria of 30µg/m³ as shown in the following figure. There have been no exceedances of the 24-hour average for Q2.

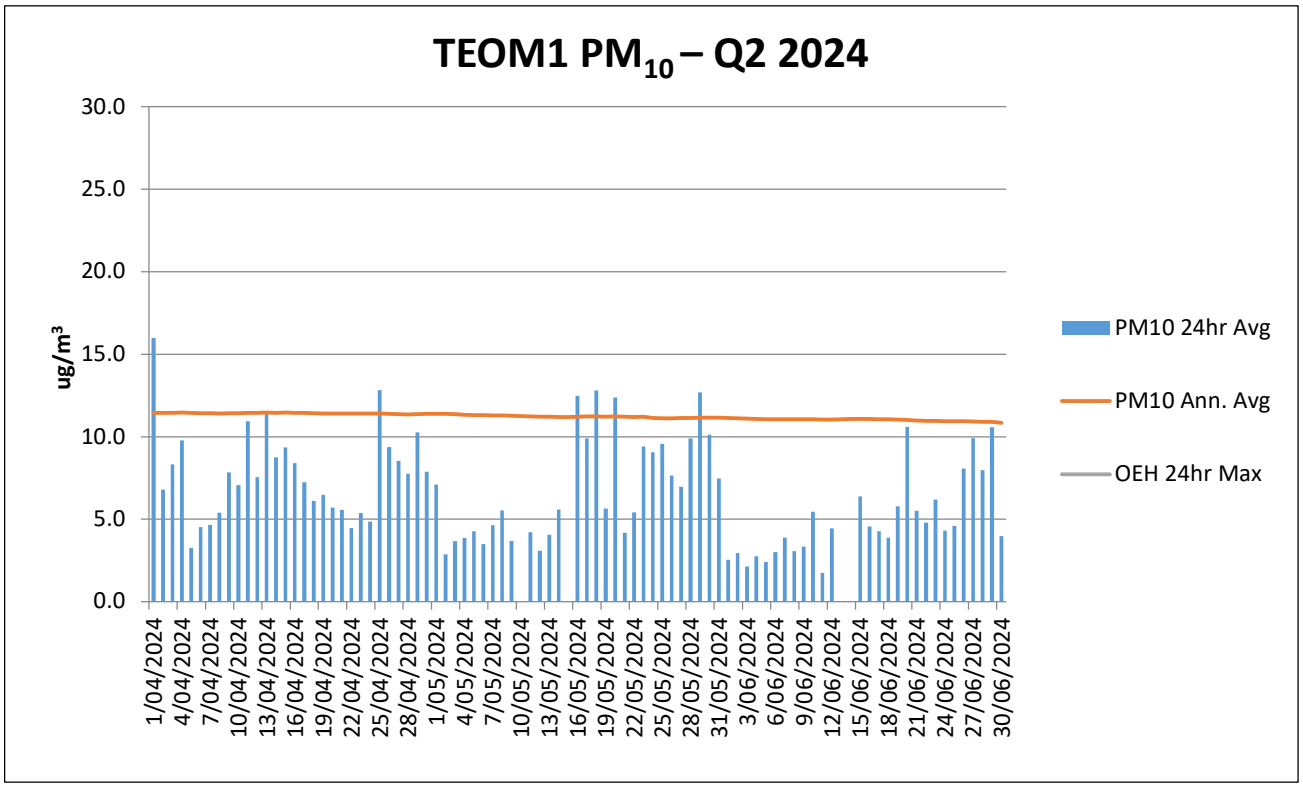


Figure 1 - TEOM Result – Particulate Matter $PM_{10\mu g/m^3}$

** Blank columns indicate sample periods where there was either power outage, maintenance or other related causes.*

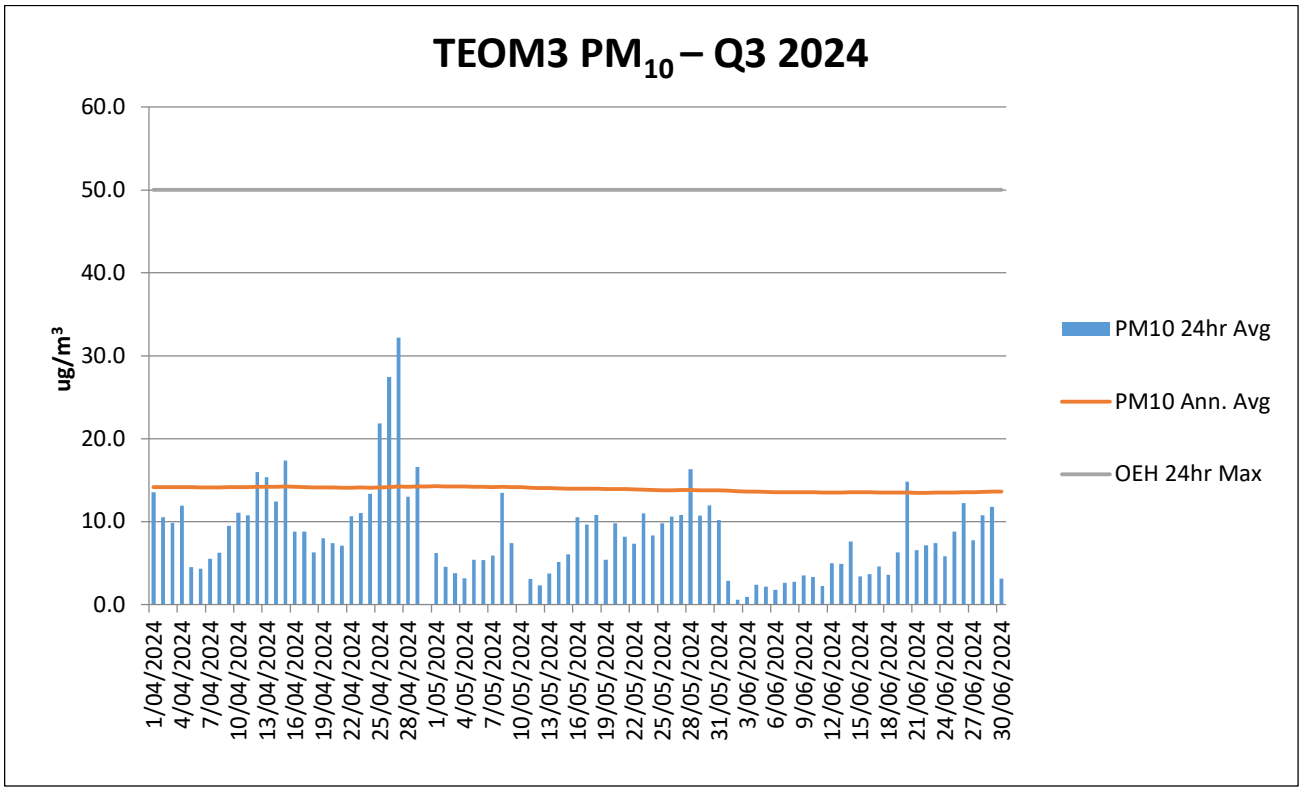


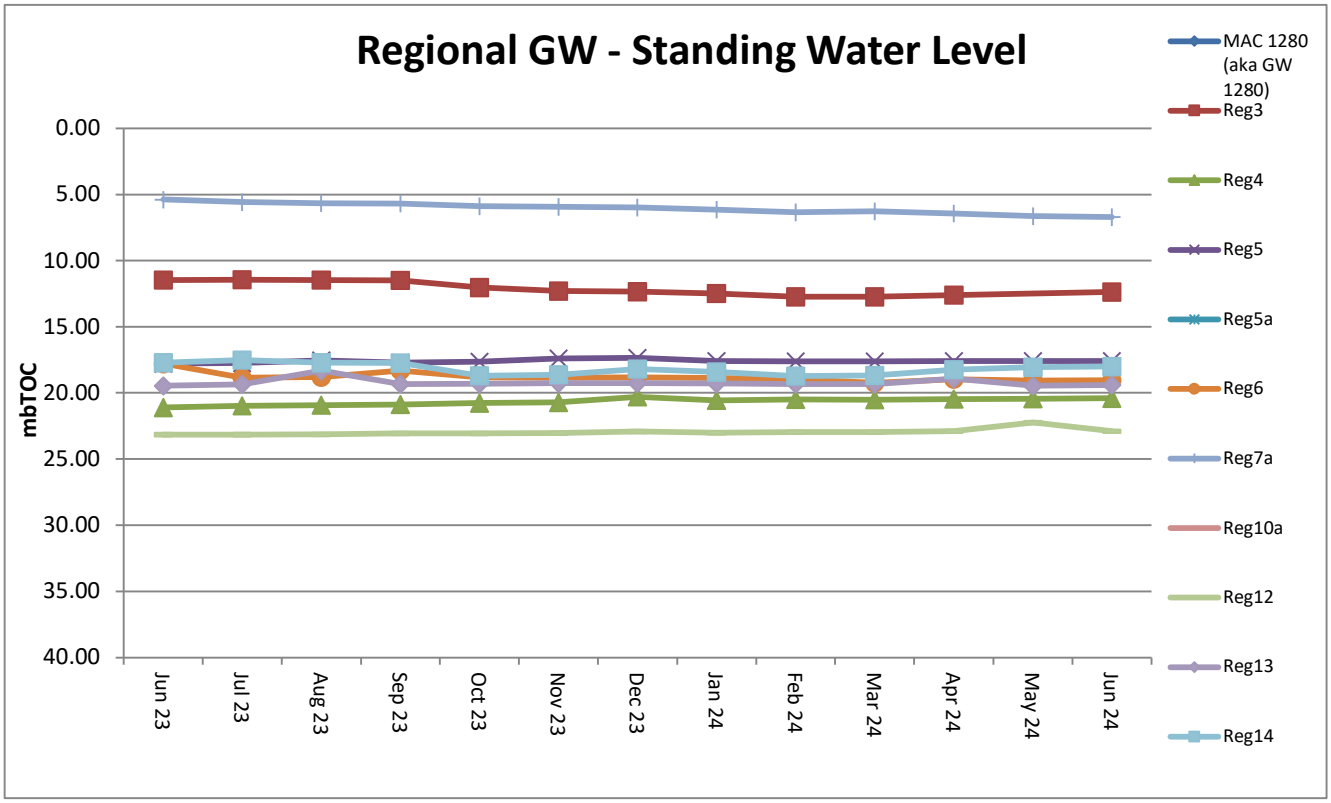
Figure 2 - TEOM Result – Particulate Matter $PM_{10\mu g/m^3}$

** Blank columns indicate sample periods where there was either power outage, maintenance or other related causes.*

Water Monitoring

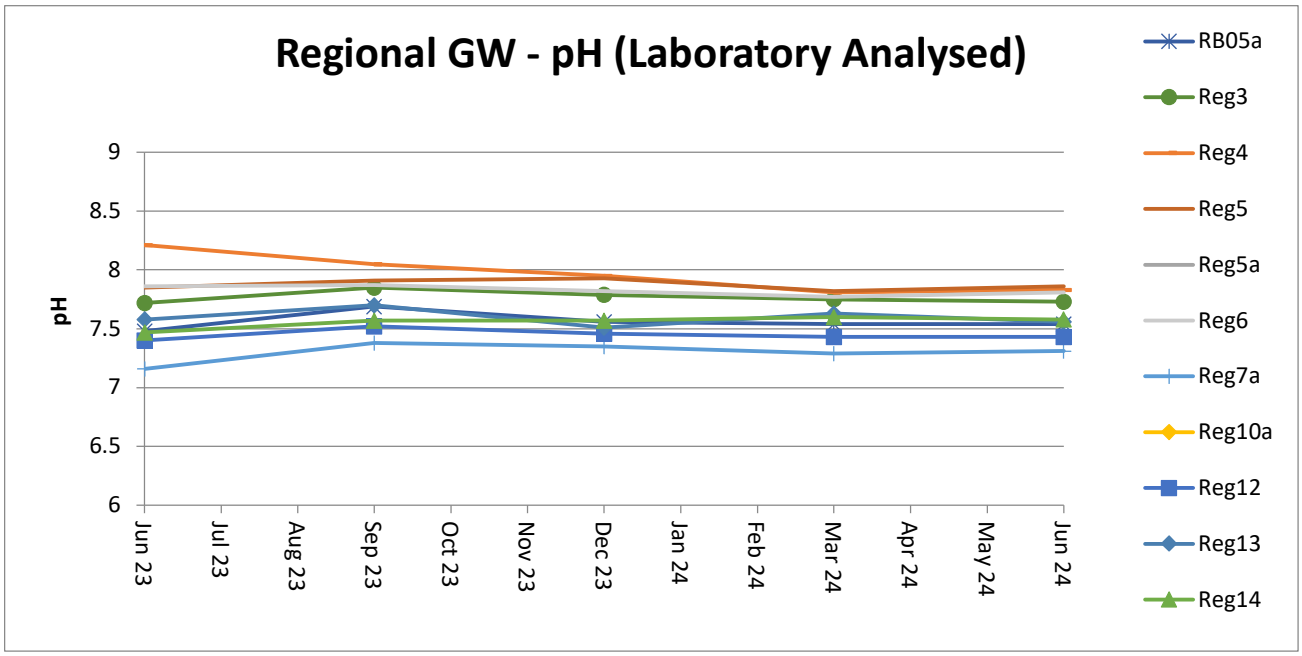
A. Groundwater

Groundwater monitoring results in open standpipe piezometers show levels to be relatively stable. The Regional bores were installed between Q4, 2013 and Q1, 2014. BCM01, BCM03, Reg10 are shallow bores which have remained dry since construction in 2013.



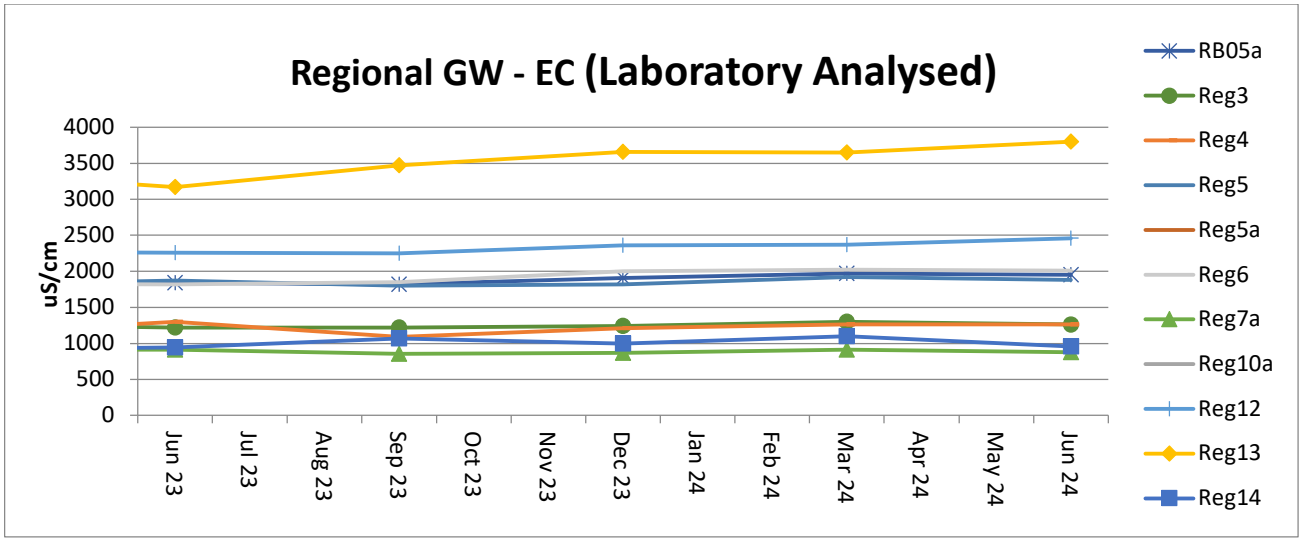
Acidity / Alkalinity (pH)

Over the past twelve months pH readings across the regional bores have remained static with very little fluctuation.



Electrical Conductivity

Laboratory Electrical Conductivity (EC) levels are all within historic groundwater EC range of 500µs/cm to 2,500µs/cm, with the exception of monitoring bore Reg13 which has a historic groundwater EC range of 2,500µs/cm to 4,100µs/cm. Within the last twelve months EC has remained static.

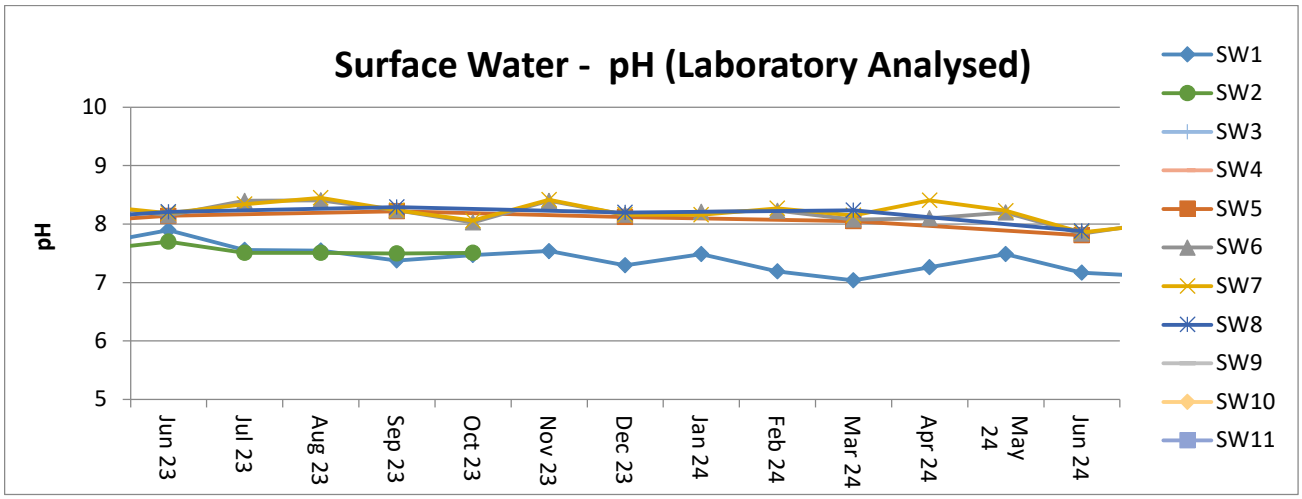


B. Surface Water – Creeks and Rivers

Routine surface water monitoring is conducted in surrounding creeks and rivers on a monthly basis. Results for parameters including pH, EC and Total Suspended Solids (TSS) are shown in the figures below.

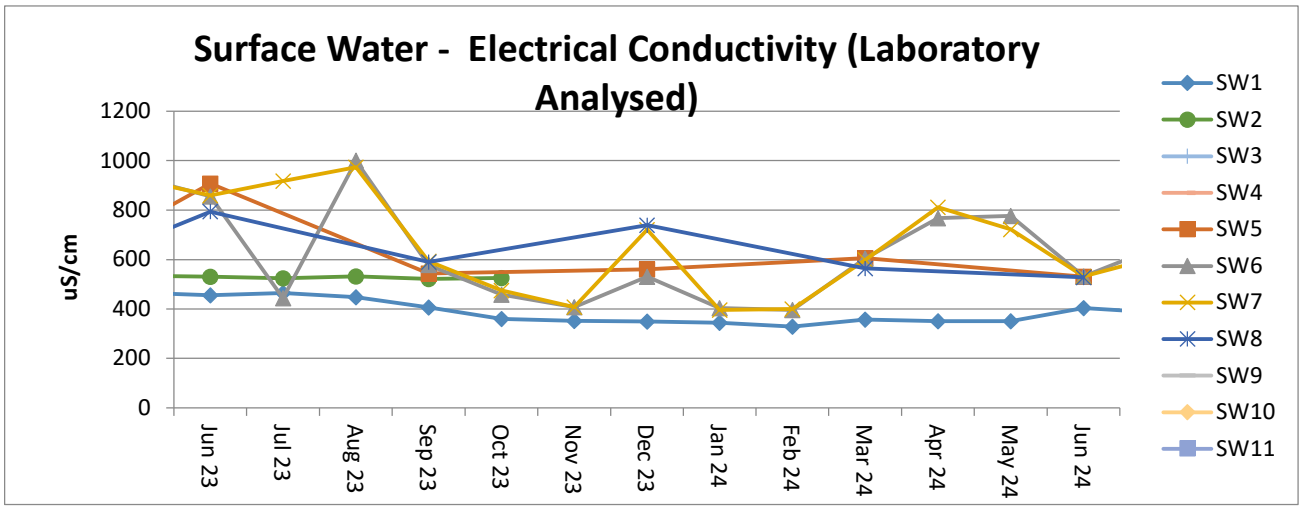
Acidity / Alkalinity (pH)

Monitoring results for pH in creeks and rivers surrounding MCCM are all trending within the ANZECC range for Irrigation, Ecosystem Health and Recreation.



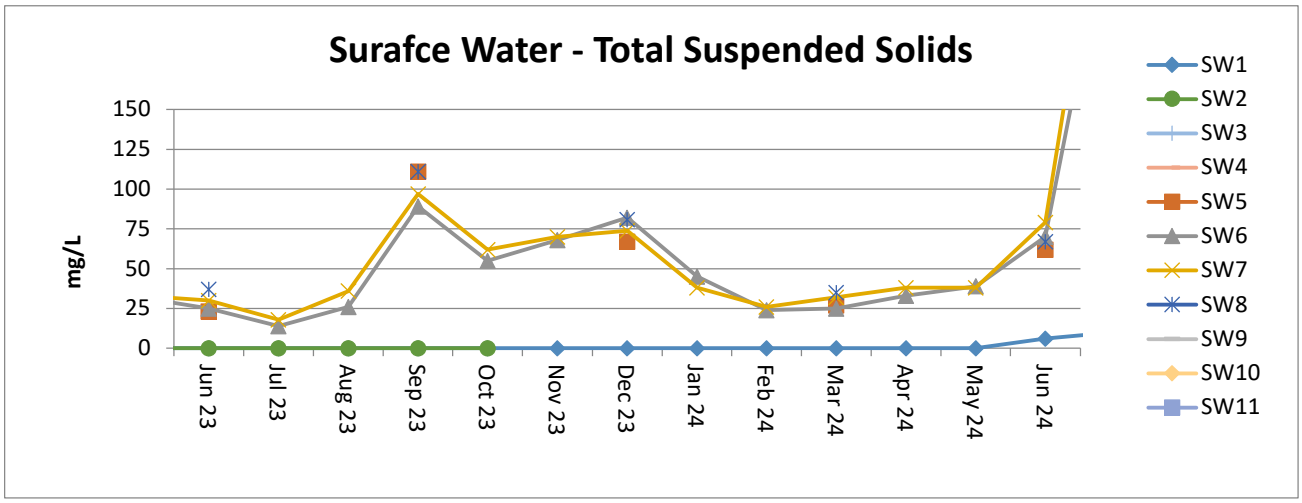
Electrical Conductivity

Surface water EC trends have remained consistent with SW5, SW6, SW7 and SW8 all historically variable. SW5, SW6, SW7 and SW8 are points along the Namoi River which are subject to regulated and variable flow regimes.



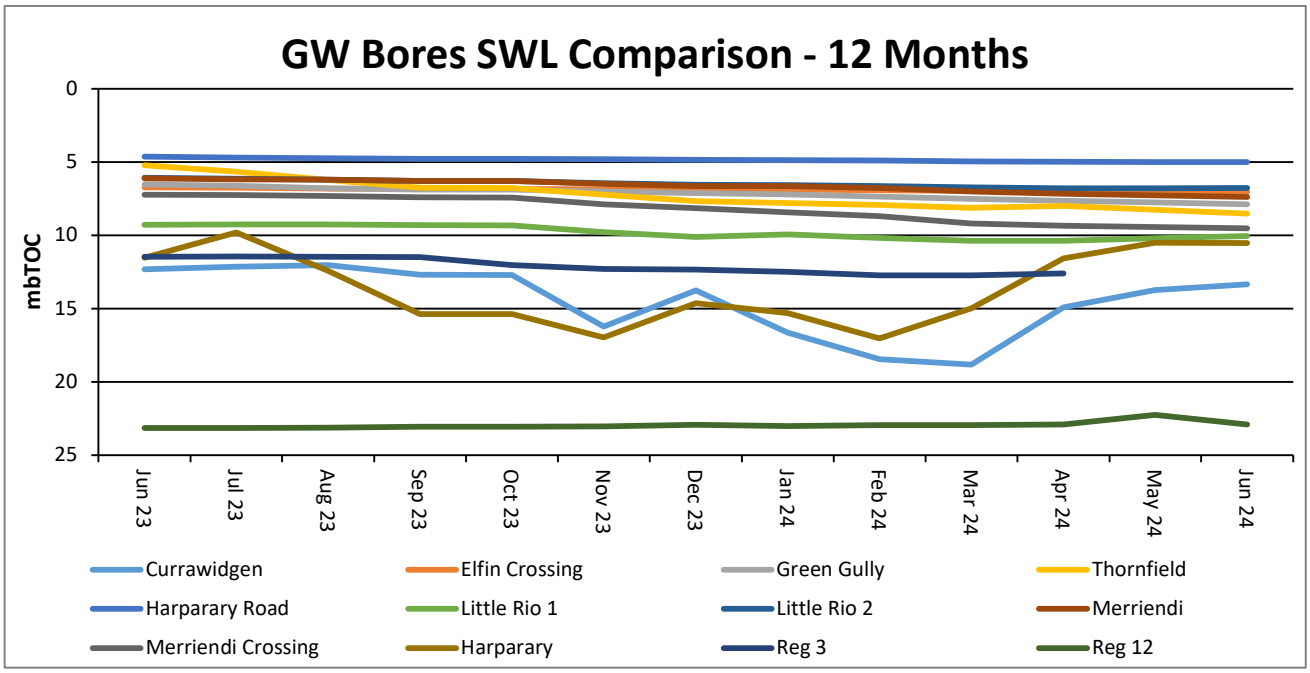
Total Suspended Solids (TSS)

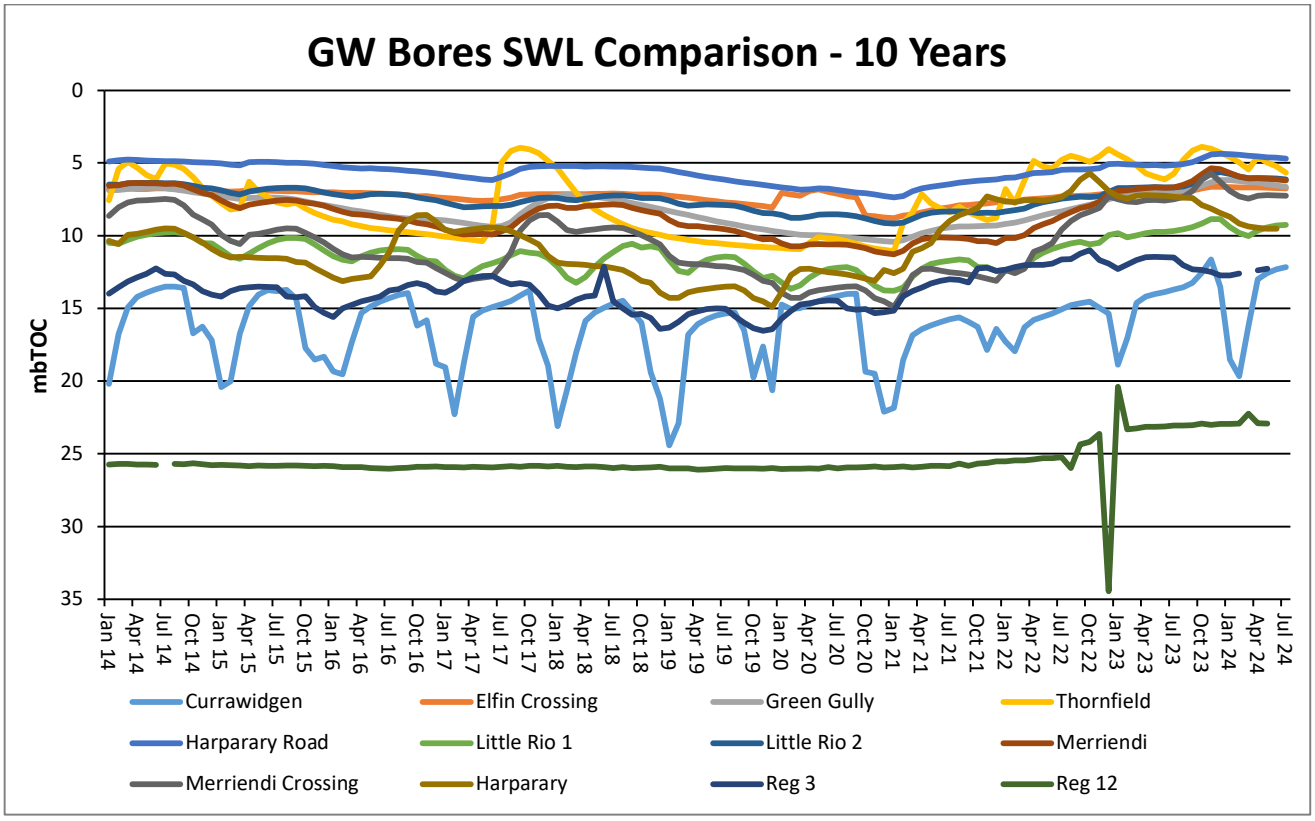
Surface water TSS trends have remained generally consistent with historical results. SW5, SW6, SW7 and SW8 are historically variable as they are located along the Namoi River which is subject to regulated and variable flow regimes.



Regional Groundwater monitoring

Maules Creek Coal Mine monitors regional bores across the region.





Rehabilitation

Progressive rehabilitation works are ongoing. MCC is on track to complete CY24 rehabilitation in accordance with the Forward Plan.

Feral Animal Management

Most recent routine Whitehaven Biodiversity Feral Animal Control program (April to June 2024) results were:

1,259 out of total 2,091 feral pigs removed were from the Maules Biodiversity properties;

566 out of the total 594 feral goats removed were from the Maules Biodiversity properties;

98 out of total 258 Canid Pest Ejectors (1080) triggered were from the Maules Biodiversity properties;

3 Deer were removed from the Maules Biodiversity properties.

Weed Control

During April to June 2024 the following weed control was undertaken via spot spraying/jetting on the Maules Biodiversity Properties:

60ha of Broadleaf weeds such as General Broadleaf, Marshmallow, Cobblers Peg and Patterson's Curse were sprayed.

4.7ha of Exotic Invasive Grasses such as African Lovegrass, Buffel Grass and Rhodes Grass were sprayed.

0.3ha of Woody Weeds such as Boxthorn & Prickly Pear were sprayed, as well as cut & paint Willow Trees and Red Berry trees.

70ha of tracks sprayed as part of the track maintenance.

Community Complaints

There was one community complaint registered during the quarter, all community complaints are available on the company website at https://whitehavencoal.com.au/our-business/our-assets/maules-creek-mine /

MAULES CREEK COAL MINE 2024 Community Complaints Register				
Date received	**Method**	**Category**	**Nature of Complaint**	**MCCM Response**
23/05/2024	Email	Dust	DPHI received an enquiry to the publishing of dust data for the MCCM Project.	MCC compiled the appropriate information and replied to the DPHI.