

Notes: Notes of the 42nd Meeting of the Maules Creek Coal Community Consultative Committee
Held at Boggabri Golf Club at 1:00 pm.

Wednesday 30 August 2023

Members Present: Darren Swain (DS) – WHC, Elizabeth O’Hara (EOH) – Community Representative, Emma Bulkeley (EB) – WHC, Jabin de Keizer (JdK) – WHC, Landon Brady (LB) – Narrabri Shire Council, Libby Laird (LL) – Maules Creek Community Representative, Robyn Grover (RG) – Community Representative

Guests: Clare Felton-Taylor (CFT) – NSC, Mick Barker (MB) – WHC, Tony Dwyer (TD) – WHC

Apologies: Cr Brett Dickinson (BD) – Narrabri Shire Council, Lyndell Crowley (LC) – Community Representative, Michelle Henry (MH) – Narrabri Shire Council, Steve Eather (SE) – Community Representative, Talan Breden (TB) – WHC

Independent Chair: David Ross (DR)

Independent Secretary: Debbie Corlet (DC)

Agenda Items	Who to Present
1. Welcome and Apologies	DR
2. Declaration of pecuniary or other interests	DR
3. Confirmation of the Minutes of the previous meeting – Wednesday 24 May 2023	DR
4. Business arising from the previous minutes	DR
5. Company Overview	WHC
6. Next Meeting – Wednesday 25 October 2023	ALL

Agenda Item	Discussion	Action/By Whom
1.	Welcome and Apologies – DR welcomed everyone to the 3 rd meeting of the year. Informed members that the meeting will be shorter than usual so that the CCC could get on with the site visit as quickly as possible.	
2.	Declaration of Pecuniary or Other Interests – DR is paid a fee as chair as is DC for typing the minutes. EOH has a small bundle of WHC shares. RG has a family member working at Maules Creek.	
3.	Confirmation of the Minutes of the Previous Meeting – Members were comfortable with the Minutes from the previous meeting.	
4.	Business Arising from the Previous Minutes DR noted that there had been no interest in new membership on the committee. Will continue to keep trying. All actions were completed.	
5.	<p>Approvals Update</p> <p>Modification 9 – BOS and ETL</p> <p>TD provided an update to members on MOD 9. A Response to Submissions (RtS) report will be provided to DPE responding to agency, organisation, and individual submissions. This is expected to be submitted in September and will be publicly available. DPE will review the RtS as part of their assessment and determination of the modification application.</p> <p>Maules Creek Continuation Project</p> <p>TD and MB described the proposal to members. The MCCM is approved to extract up to 13 Mtpa of ROM until 31 December 2034. Maules Creek Coal Project Environmental Assessment described potential future open cut mining areas. Open cut mining operations are currently progressing in a south-east direction towards the approved extent of disturbance. MCCM will become operationally constrained in late 2028 and exhaust approved coal resource by approximately Q1 2030 (i.e. – 4 years ahead of approved mine life of 2033). Consequently, the current workforce would need to be progressively stood down from late 2028.</p> <p>LL – What mining licence is the brown shading? TD – CL375 (Consolidated Licence) and ML (Mining Licence).</p>	

	<p>Key Project elements and activities</p> <p>MB described the key elements. There would be a continuation of open cut mining operations and workforce beyond 2030 to 2043 with up to 14 Mtpa of ROM coal (1 Mtpa increase to approved maximum ROM) and the transport of up to 12.4 Mtpa of product coal (no change to approved maximum rail). The operation of the existing CHPP, rail and other MCCM infrastructure would consequently continue (with upgrades as required) until 2043.</p> <p>The final void is proposed to be located in the south-east away from Back Creek. Continued employment of the approximate 800 current workforce.</p> <p>LL – What is the authority number for that surface area? And what properties are covered? MB – 346 is the Licence Number. ML 1719.</p> <p>Continuation Project EIS</p> <p>A water transfer pipeline to be constructed between MCCM Groundwater Bore and approved Tarrawonga Coal Mine / Vickery Extension Project. MB observed that the pipeline will assist with efficiently moving water around the mines, thereby assisting with management of dry and wet conditions.</p> <p>Key Assessment Considerations</p> <p>MB observed that MCCM are in the early phases of undertaking the EIS. The mine is hoping to receive the SEARs (DPE Secretary’s Environmental Assessment Requirements) by the end of the year. Meanwhile, the Scoping Report is anticipated to be lodged with DPE by the end of the year.</p> <p>The overarching assessment will include a robust biodiversity assessment involving a survey of the broader Leard State Forest and potential offset properties.</p> <p>A dedicated Greenhouse Gas Assessment needs to be undertaken to address contemporary / emerging legislation and policies.</p> <p>A substantive fieldwork program is also underway to further understanding of environmental features and constraints (e.g., TEM, soil / alluvial transects, groundwater monitoring expansion, stream mapping). As part of DPE’s requirements, a cumulative impact assessment will be undertaken, including consideration of the BTM Complex and relevant feedback received from Government.</p> <p>LB – What does TEM stand for? MB - Its Transient Electromagnetics – soil / alluvial transects.</p> <p>MB observed that referral under the EPBC (Environmental Protection & Biodiversity Conservation) Act will take place late in 2023 and consultation will take place throughout EIS preparation and assessment.</p>	<p>ACTION 1 – WHC to report back on what properties are covered under Licence Number 346.</p>
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	<p>EOH – With the TEM work. You are driving a 4WD on the ground. How do you actually manage that most of it is treed areas?</p> <p>MB – We’re targeting the edge of creeks. Edge of trees don’t have much alluvial. We don’t do any clearing. The tree areas don’t have alluvials. We aren’t concerned with mapping those areas. The main target area is along the edge of Back Creek and Maules Creek.</p> <p>LL – So the areas between Maules Creek and Back Creek, you are surveying the boundaries between the two creeks? Will it help monitor impact of drawdown?</p> <p>MB – Yes, we’re trying to map those groundwater systems. You can track the website.</p> <p>LL – Tonnage and between ROM and trained coal. Why do more mining to go to 14 Mtpa when you only do the 12.8 Mtpa?</p> <p>MB – The mining is proposed to continue because it is coming to the end of the mine period. The increase from 13 to 14 Mtpa, as we propose to the east is because there are more seams available. When we change from mining into the corner (southeast), it will allow us to be more efficient with our mining equipment which allows us to mine to the 14 Mtpa.</p> <p>LL – That transport to Newcastle is not guaranteed past current approvals. When does that end?</p> <p>MB – In 2024.</p> <p>LL – So, you’re talking about expansion of 10 years. Is it a new state development.</p> <p>MB – Yes - Taking the current approval through but need to go through the impact assessment.</p> <p>LL – We think it is a new state development project with new authority required. Are any more holes to be put down?</p> <p>MB – Yes. We do have plans to drill. We have the licence for the CL 375 which gives us the approval to drill and explore.</p> <p>DR set an expectation with committee members that, as the EIS is not going to be submitted until next year, this is going to be a discussion for the CCC for the next 18-months.</p> <p>DR – Is there anything else that could be coming up in the next 3 to 6 months.</p> <p>EB – Not from my side at this stage.</p> <p>LL – If anything does come up that WHC to send information to DR.</p>	<p>ACTION 2 – WHC to add a slide re the TEM work</p> <p>ACTION 3 – WHC to provide link to website tracking the project</p> <p>ACTION 4 – WHC to report back how many holes will be drilled.</p> <p>ACTION 5 – WHC to add slide to every presentation about what is coming up in the next 3 to 6 months.</p>
6.	<p>General Business</p> <p>EOH – Thought there was to be a slide in the presentation re the tyres buried in 2023.</p> <p>EB – There is one in the hard copies. No tyres buried in 2023.</p>	

	<p>DR – Over the last year the Department has been revising the Guidelines. We'll have to talk about this a fair amount at the next meeting.</p> <p>LL – Re the effectiveness of members, what is the criteria?</p> <p>DR – Will send the spreadsheet through to members, outlining the criteria. It covers issues like how are people adhering to the code of conduct, their knowledge of the project. I've already sought guidance from the Department about what they require. I'll have more information hopefully by the next meeting.</p> <p>LL – Is it transparent and shared.</p> <p>DR – Yes, it'll be on the Department website.</p> <p>LL – Do members get to review the Chair and the minute taker and everyone else.</p> <p>DR – I'm always happy to receive feedback so yes. But will have more information at the next meeting.</p> <p>DR – Someone at the Boggabri Coal talked about the mines getting together to fund a dialysis machine for the area.</p> <p>DS – I believe there is one in Narrabri however will find out. I believe there was no one to run the dialysis machine.</p>	<p>ACTION 6 – DR to send through the CCC Guidelines evaluation spreadsheet.</p> <p>ACTION 7 – DS to find out about the dialysis machine.</p>
7.	<p>Next meeting date</p> <p>Wednesday 25 October at 2:00 pm. Members then were driven to the biodiversity areas to have a look at some of the offsets.</p>	

Meeting Closed: 1:55 pm. All members went on a site tour. Meeting finished at 3:30 pm

Appendix 1: Actions

Page No	Action No	Description	Date Raised
3	1	WHC to report back on what properties are covered under Licence Number 346.	30 August 2023
4	2	WHC to add a slide re the TEM work.	30 August 2023
4	3	WHC to provide link to website tracking the project.	30 August 2023
4	4	WHC to report back how many holes will be drilled.	30 August 2023
4	5	WHC to add slide to every presentation about what is coming up in the next 3 to 6 months.	30 August 2023
5	6	DR to send through the CCC Guidelines evaluation spreadsheet.	30 August 2023
5	7	DS to find out about the dialysis machine.	30 August 2023

Briefing Note

To: Maules Creek Coal Mine CCC Members

From: Maules Creek Coal Mine (MCC)

Date: 25 October 2023

Reference: Responses to questions MCC CCC August 2023 Meeting

Subject: Responses to MCC CCC Actions and Questions

Question	Response
<p>Question 1.</p> <p>When are the monitoring bores Reg 11, Reg11a which were identified in the 2013 and 2019 Water Management Reports respectively, going to be drilled?</p>	<p>The GW monitoring network is developed by groundwater (GW) experts Australasian Groundwater & Environmental Consultants (AGE) and through consultation with DPE. These bores were located on 3rd party land and access was not granted. Alternate monitoring locations were adopted to replace these sites in the vicinity of Reg 11/11a including MOR2, MOR1, GW006567, Reg3, GW0300129_1.</p>
<p>Question 2.</p> <p>Why is there is still no reporting of Reg11 and Reg11a 10 and 4 years later?</p>	<p>See above</p>
<p>Question 3.</p> <p>Why don't WHC report bores Reg1 and Reg2? These bores were first proposed in 2013 and are, according to the 2019 Water Management Plan, located in the coal seams (and interburden) near the Green Gully Crossing and Thornfield Crossing Water NSW monitoring bores. If these levels were shown we would get some idea of the connectivity between the alluvium and hard rock in those locations.</p>	<p>These bores are reported in the Annual review, data for them can be found on page 138 of the report.</p>
<p>Question 4.</p> <p>I request that you report these to the CCC from the November 2023 meeting.</p>	<p>These bores are reported in the Annual review, data for them can be found on page 138 of the report.</p>
<p>Question 5.</p> <p>Why is there no monitoring bore in the coal seams and interburden near the Elfin Crossing Water NSW monitoring bores?</p>	<p>The GW monitoring network is developed by GW experts AGE and through consultation with DPE. REG1 and REG2 monitor coal seams and permium under the Zone 11 alluvial in locations where there is predicted to be drawdown in the coal seams. Landholder bores measure shallow GW levels near Elfin crossing. The alluvial and coal seams near Elfin Crossing are not predicted to be impacted by the mine and therefore this area isn't a suitable location to monitor impacts. Predicted impact figures are located in Figure 12.4 and 12.5 of the BTM complex GW model.</p>
<p>Question 6.</p> <p>Like point 2 above, it would give everyone an idea of the connectivity between the coal and the alluvium. Based on the outputs from the Namoi Water Study it seems like the</p>	<p>The monitoring program is developed by AGE in consultation with DPE. Locations are based on their expert advice and the predicted impacts detailed in the BTM complex model. It's</p>

Briefing Note

obvious place to have a monitoring bore in the coal. Can you include this in the next Groundwater Management Plan?	important that we monitor locations where impacts are predicted, so the model predictions can be validated.
Question 7. Why are the graphs in this monitoring report shown with disproportionate x toy axis? It is hard to get a handle on the trends with such badly constructed graphs.	Noted
Question 8. Would MCCM provide the data as well?	Groundwater data is provided in the Annual review.
Question 9. Would MCCM put page numbers on the monitoring reports?	Noted
Actions	
ACTION 1 WHC to report back on what properties are covered under Licence Number 346.	Wollondilly Warriahdool Cattle Plain Tralee Ellerslie
ACTION 2 WHC to add a slide re the TEM tracking as well as the actual link on the website.	https://www.planningportal.nsw.gov.au/major-projects/projects/maules-creek-continuation-project
ACTION 3 WHC to report back how many holes will be drilled.	There are 14 holes planned in Auth 346.
ACTION 4 WHC to add slide to every presentation about what is coming up in the next 3 to 6 months.	Included in the presentations under Approvals
ACTION 5 DR to send through the CCC Guidelines evaluation spreadsheet.	Noted
ACTION 6 DS to find out about the dialysis machine.	DS investigated, no dialysis machine is present in Narrabri.

Maules Creek Coal Mine

CCC MEETING
Q2 2023

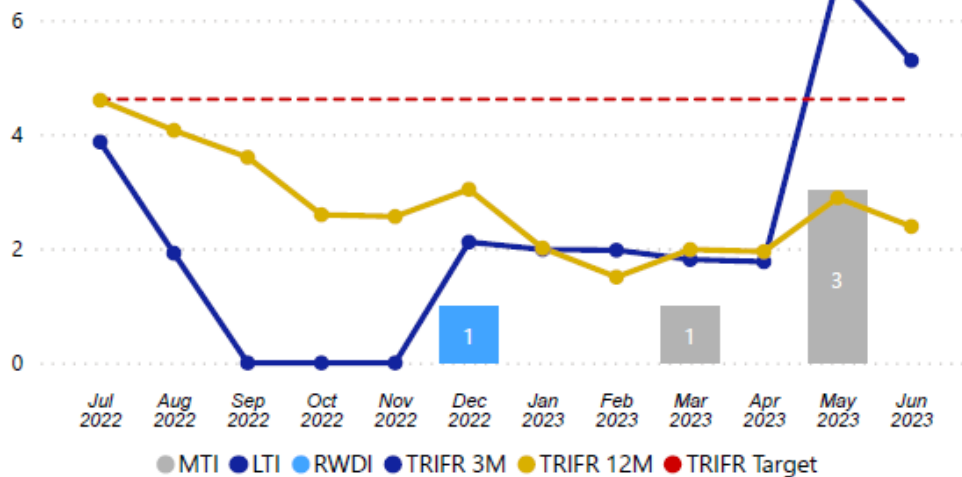
Maules Creek Coal Mine
May 2023



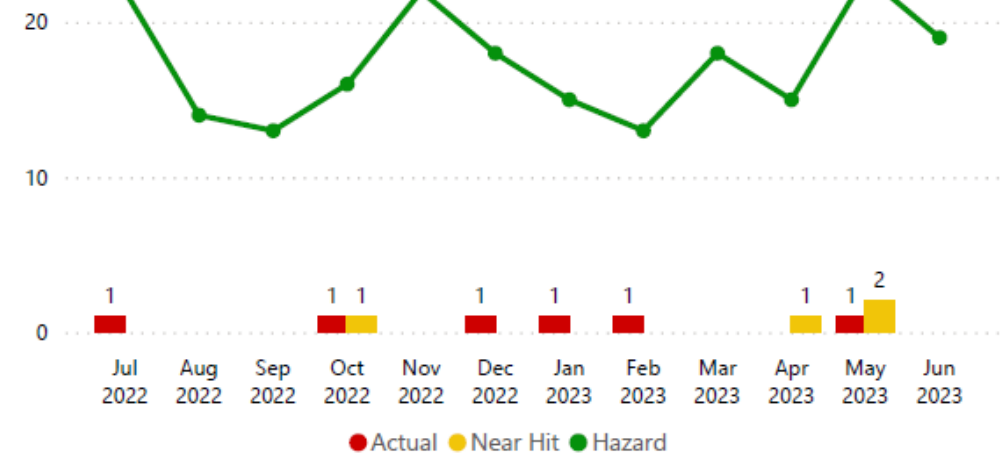
MCC Delivers Asset Record Health and Safety Performance

- TRIFR 2.4 (53% reduction Year on Year)
- PL4+ Hazards = 208 (69% increase Year on Year)
- Critical controls verified 100%

Recordable Injuries & Occupational Illness



Potential Level 4+ Hazards & Incidents



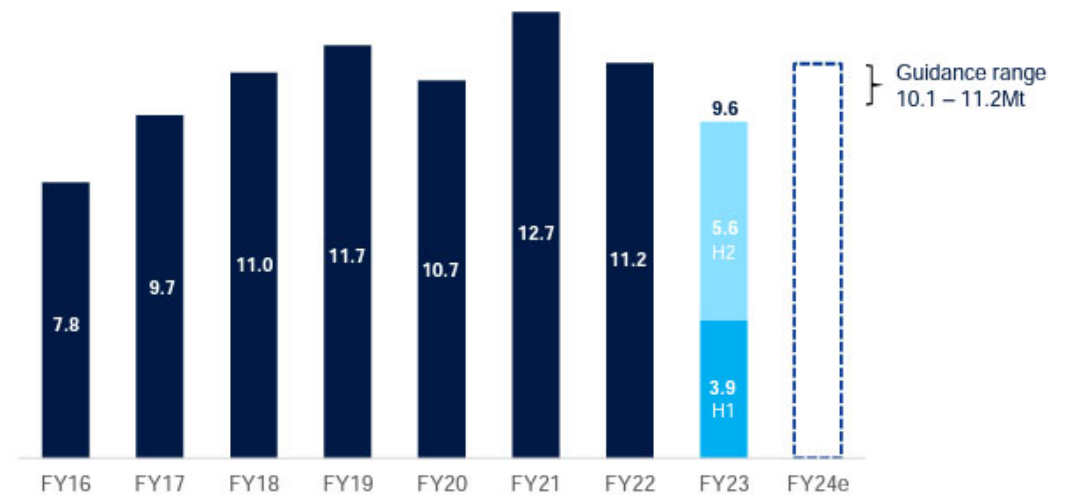
CCC MEETING

Production

FY23

- FY23 ROM production of 9.6Mt, 15% below FY22 due to:
 - localised flooding cutting off mine access for 24 days in H1
 - labour shortages
 - congestion arising from limited dumping locations while keeping manned and unmanned AHS fleets separate
- A solid H2 with improved mine sequencing
- AHS development will continue for a further 12 months in FY24; weather and labour improvements delivering gains

Managed ROM coal production (Mt)



Environmental Monitoring

All data is summarised for quarter 1
in detail In the Monitoring Report
supplied

Maules Creek Coal
August 2023



Environmental Monitoring

Q2 2023 - Air Quality Monitoring

Maules Creek Coal
May 2023



Depositional Dust

The annual reporting period (12 monthly rolling annual average) remained below the relevant Project Approval (PA 10_0138) criteria of 4g/m²/month for the respective monitoring points.

MONTH	MC1	MC2	MC3	MC4
January	7.7 ^c	1.5	2.8	13.8 ^c
February	5.9 ^c	4.9	4.8	1.0
March	3.2	2.3	2.0	1.0
12 MONTH ROLLING AVERAGE	1.6	1.8	2.5	1.2

^c samples contaminated by bird dropping, decomposed insects or vegetable matter.

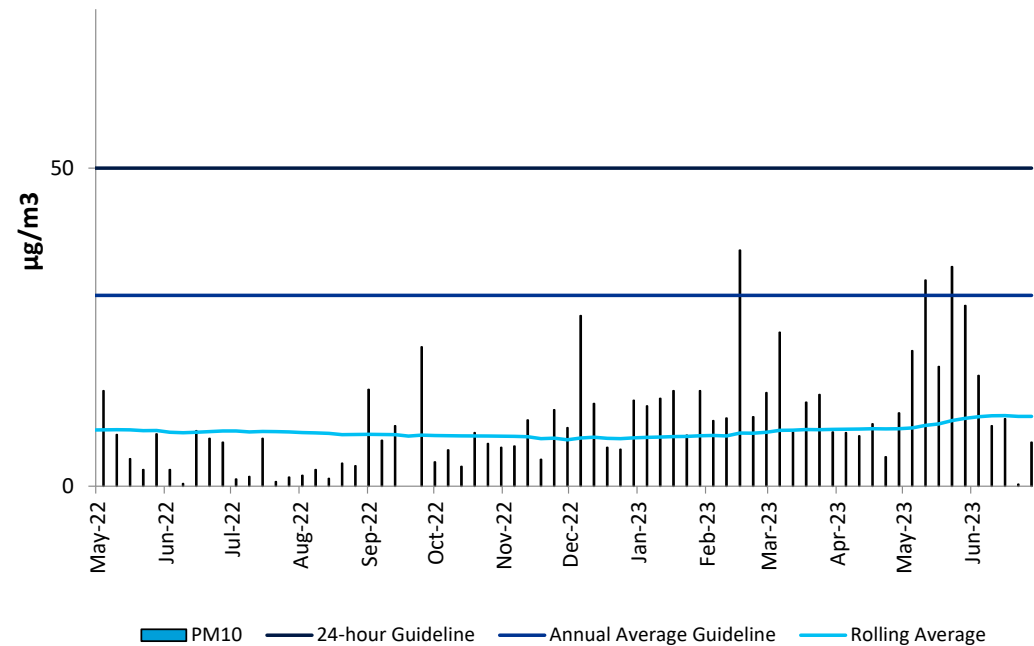
* Sample broken in transit.

HVAS

High Volume Air Sampler

- The HVAS monitor is located on 'Olivedene'
- Data is publically available
- No exceedances recorded during the 24 hour average of 50 $\mu\text{g}/\text{m}^3$
- The Rolling Annual Average was recorded at **8.9 $\mu\text{g}/\text{m}^3$** , which is below the Annual Average Guideline of 30 $\mu\text{g}/\text{m}^3$.

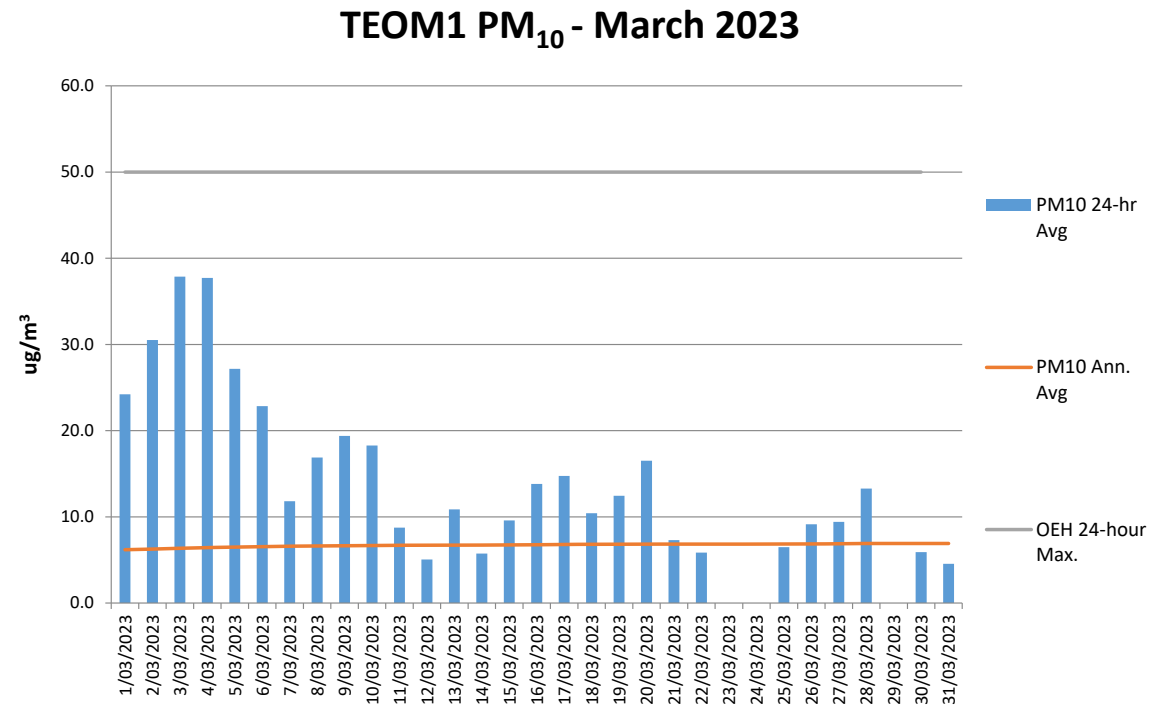
HVAS (PM10) - Olivedene



TEOM (PM10)

Tapered element oscillating microbalance

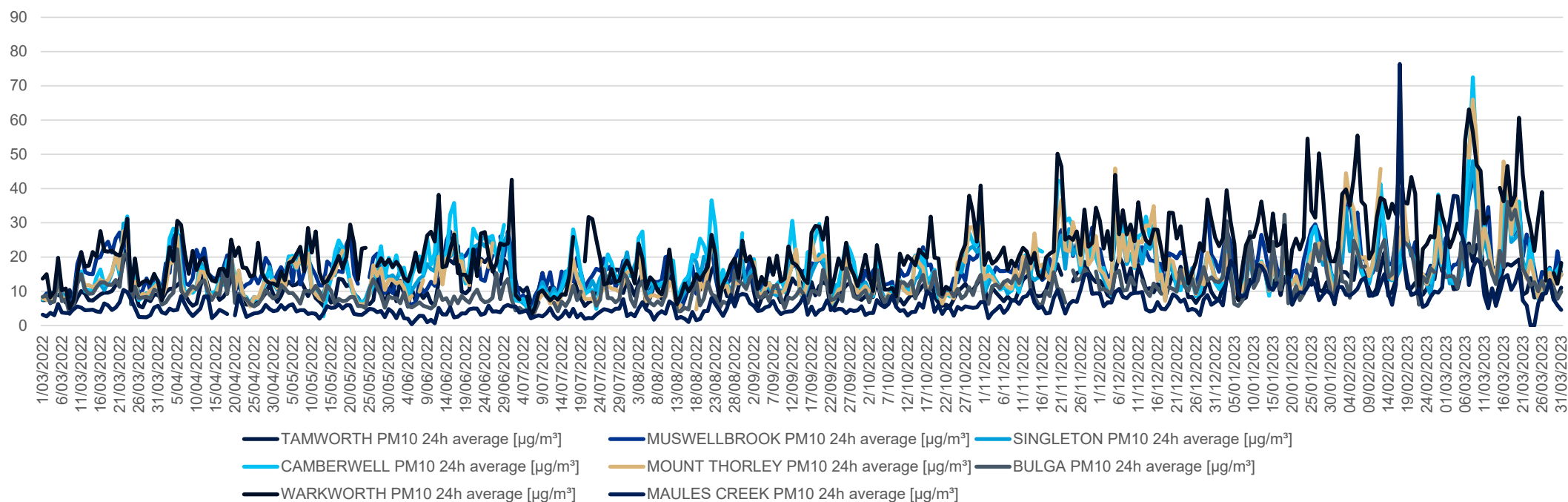
- Publicly available results of TEOM1 available on the EPA website.
- Annual rolling average for TEOM 1 is $8.1 \mu\text{g}/\text{m}^3$ at 30 June 2023 (criteria $30 \mu\text{g}/\text{m}^3$).



Air Quality Monitoring Rolling 12 Months

Annual Reporting Data 1 June 2022 – 30 June 2023

Regional Air Quality PM10 Comparison



12 monthly	TAMWORTH PM10	MUSWELLBROOK PM10	SINGLETON PM10	CAMBERWELL PM10	MOUNT THORLEY PM10	BULGA PM10	WARKWORTH PM10	MAULES CREEK PM10
Annual Average	11.4	17.8	15.5	17.5	16.0	11.5	22.4	6.9
Max 24hr Ave	24.0	46.0	48.0	72.5	66.0	39.8	63.1	76.4

Environmental Monitoring

Q4 2022 - Groundwater

Maules Creek Coal Mine
May 2023

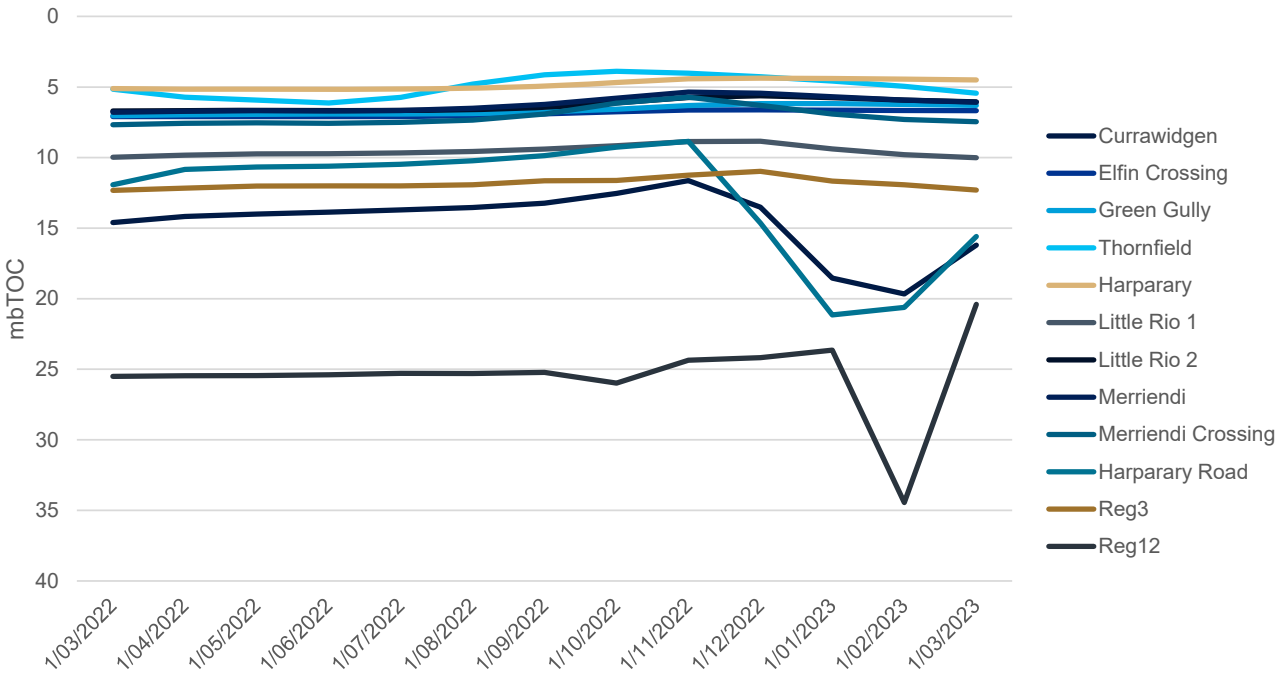


Monitoring Locations



Groundwater Levels

GW Bores SWL Comparison - 12 Months

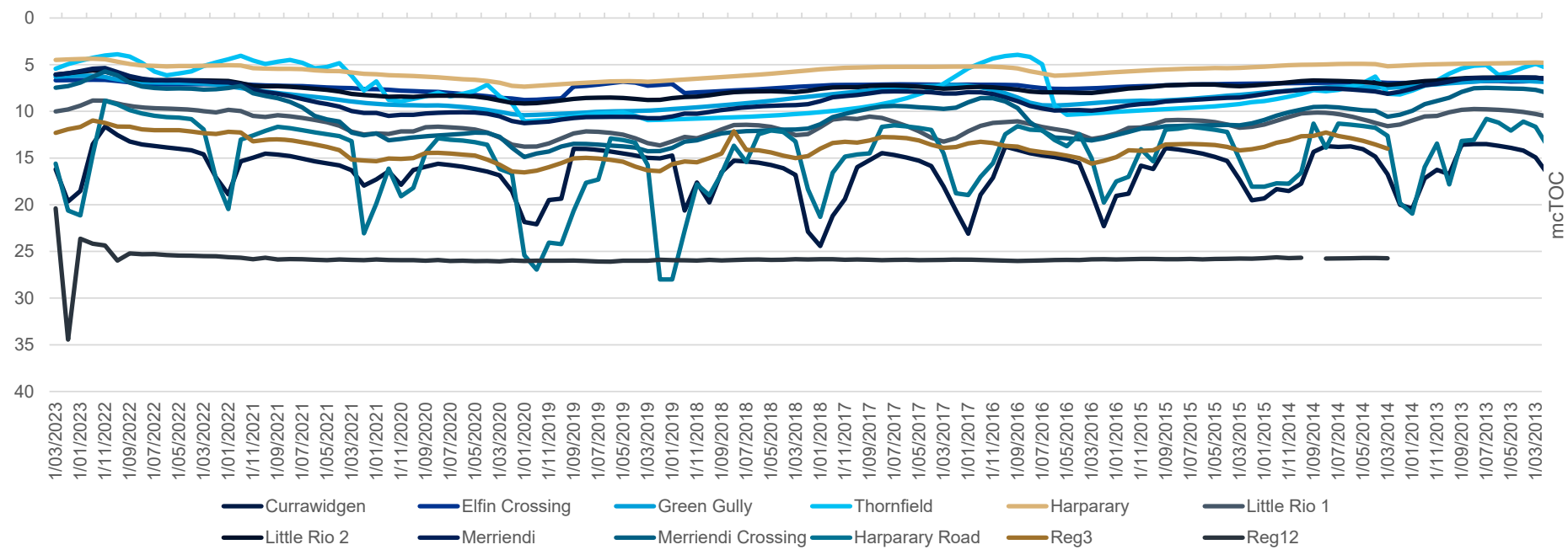


* Note Reg12 and Reg3 both within Boggabri Volcanics

Source: NSW DPI- Water & MCCM monitoring data

Groundwater Levels

GW Bores SWL Comparison - 10 Years

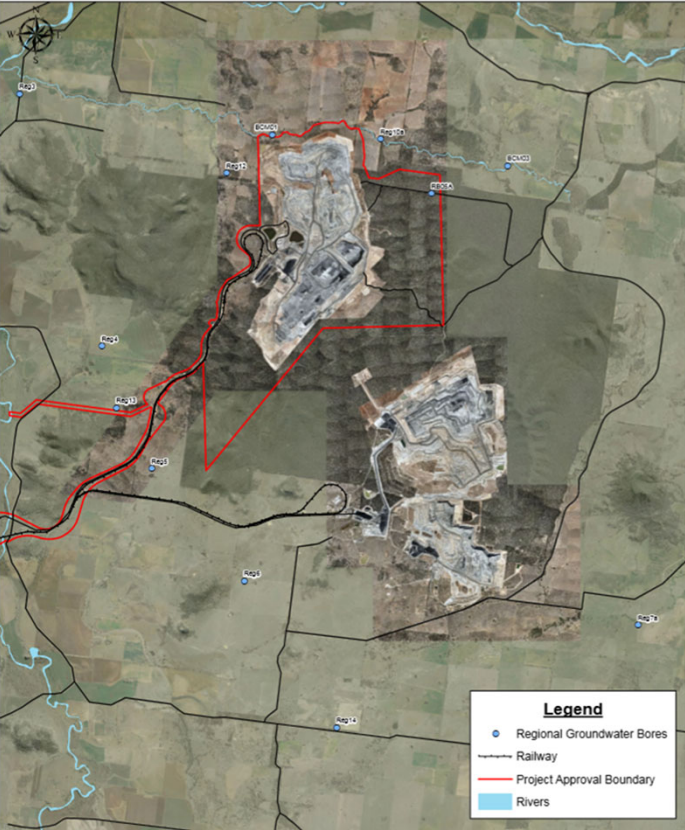


Source: NSW DPI- Water & MCCM monitoring data

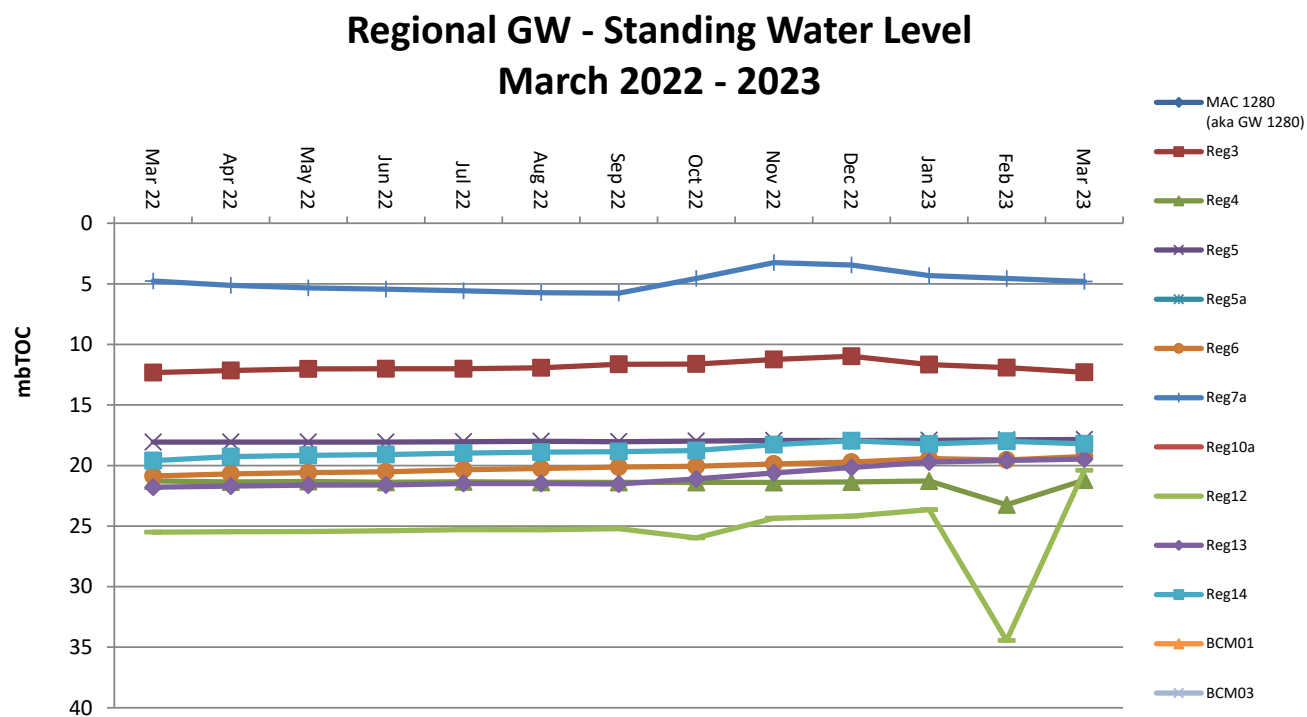
* Note Reg12 and Reg3 both within Boggabri Volcanics

Standing Water Levels

Regional Groundwater Bores



Standing Water Levels



* Missing data due to restricted access as a result of wet weather

Tyre Disposal 2023

- No tyres have been disposed of in 2023

Environmental Monitoring

Q1 2023 - Biodiversity

Maules Creek Coal Mine
May 2023



Biodiversity Management

Feral Animal Management

Most recent routine Whitehaven Biodiversity Feral Animal Control program (January to March 2023) results were:

- 637 out of total 935 pigs trapped or baited were from the Maules Offset properties; and,
- 143 out of total 227 Canid Pest Ejectors (1080) consumed were from the Maules Offsets properties.

Weed Control

Spraying of summer dominant exotic grasses such as African Lovegrass, Rhodes Grass, Buffel Grass and Coolatai Grass; and Spraying of Broadleaf weeds such as Noogoora / Bathurst Burr, Thistles, St Johns Wort has been completed. Targeted weed control for Prickly Pear, Sweet Rose Briar, Boxthorn and Fleabane is ongoing.



Biodiversity Management

Bushfire Response and Fire Break Track Maintenance

WHC assisted RFS and NPWS respond to the Kenna Bushfire ~4700ha that impacted ~700ha of non Maules Offsets as well as continue to repair track damage due to impacts of last years heavy rainfall.

Annual Fauna Monitoring

Annual Fauna Monitoring Microbat Surveys using harp traps completed.

Upcoming Biodiversity Projects and Works

Annual Nest Box and Habitat Augmentation Monitoring and Installation underway

Legacy Asbestos Dumps Haz Mat Remediation to commence.

Monthly Pest Animal Management Program April to June 2023 to continue.

Continued seasonal Weed Control Programs.

Seasonal Tree Planting and Onavale Seeding Revegetation Program underway

Quarterly Threatened Flora Inspections and Programs ongoing.

Continued Fire Break Track Maintenance Program ongoing.

Undertaken Ecological Burn Program to commence.

Heritage Management & Annual Heritage Site Inspections to commence.



Autonomous Haulage System

AHS Update

Maules Creek Coal Mine
May 2023





AHS Operations



The Autonomous Haulage System (AHS) at Maules Creek are operating between 2 EX8000 excavator fleets, with a total of 20-24 autonomous trucks operating at any one time. To accommodate this, we operate MITs (Manned Instrumented Trucks) inside the AOZ (Autonomous Operating Zone), where an operator will move through the AOZ carrying coal or other material to an out-of-AOZ dumping area while interacting with Autonomous Haul Trucks.

The Autonomous trucks are currently completing a 10km round trip haul, averaging 42 minutes per haul cycle. This is creating a large benefit for the entire operation, assisting in times of labour shortages at Maules Creek Coal.

The AHS Project Team are working with the Hitachi AHS teams to continuously improve the System with scoping of new features, improvement initiatives and regular governance reviews to ensure we're working safely at Maules Creek.,

FACT: AHS at Maules Creek has reached ~90,000 hours of operation.

FACT: Over 150 people are trained and competent in AHS operations at Maules Creek (In-pit, Mine Control and Engineering teams)

DID YOU KNOW: In AHS, there are Excavator, Dozer, Grader, Water Cart and Service Cart operators, along with AHS Controllers, AHS Builders (Map Builders) and multiple Engineering roles.



Hitachi Technical
Updates

Old issue – AHT (Autonomous Haul Trucks) are very conservative in their turning radius at a loading or dumping area.

New Feature – A new soon to be released feature allows the AHTs to take tighter turning radiuses allowing for optimised path generation in these work areas, decreasing the time the truck takes to complete its haul cycle.

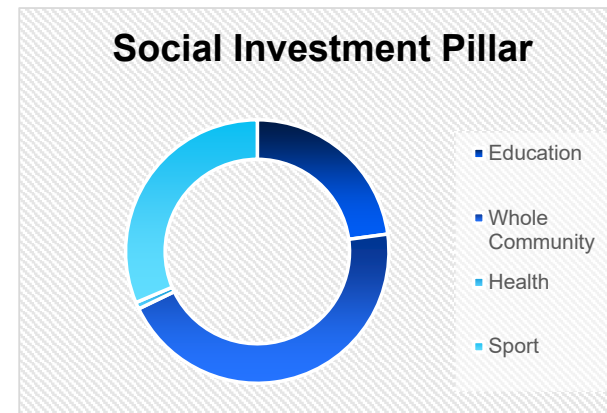
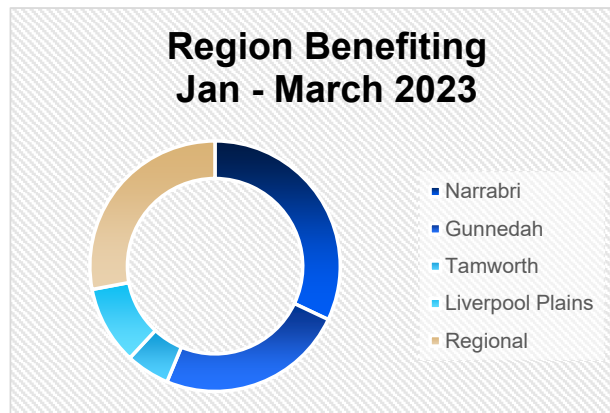
Community

Maules Creek Coal Mine
May 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 Jan – March 2023 over \$177,000 spent in the local community.
- Some highlights – CAN Assist, Little Wings partnership, Westpac Rescue Helicopter, Maules Creek Camp Draft, Gunnedah Scholarship Fund, Gunnedah South School refurb outdoor area, Tamworth Science and Engineering Challenge, Namoi Women's shed toilet, Narrabri Show, Boggabri Rugby league club, Quirindi Rural Heritage Village, North West Cow Horse,



Thank you

Maules Creek Coal Mine
February 2023



MCC CCC Meeting Approvals Update

Maules Creek Coal Mine
August 2023



WHITEHAVEN COAL

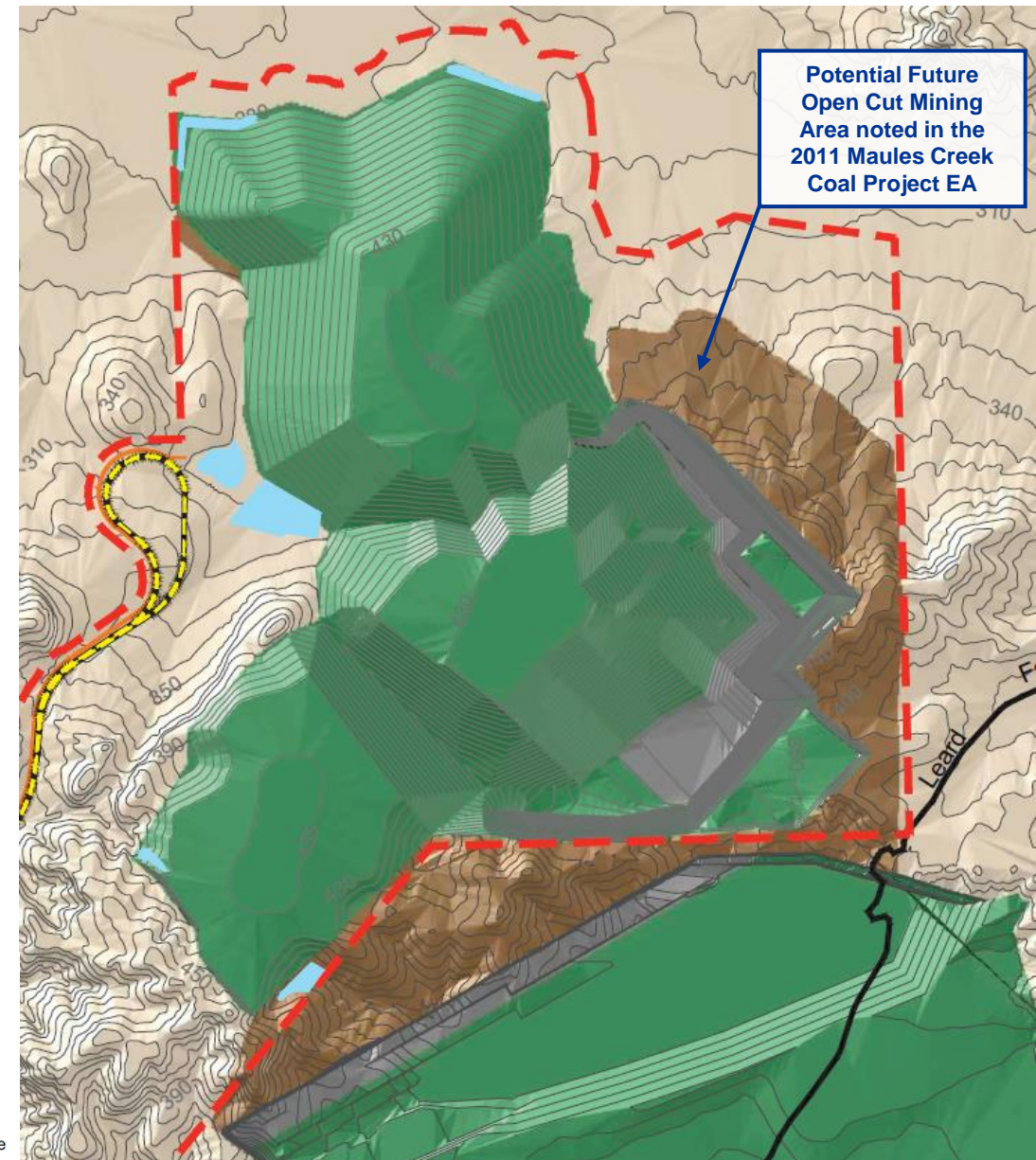
Modification 9 – BOS and ETL

- The Modification comprises the following:
 - modification of the MCCM biodiversity offset strategy to generally align the offset areas required under PA 10_0138 with the offset areas approved to meet the requirements of the EPBC Act approval (EPBC 2010/5566); and
 - construction of an ETL (including poles and overhead wires) within a 20 metre (m) corridor to connect the Roma Bore pump to an existing 11 kilovolt (kV) powerline which runs approximately 700 m to the west of the Roma.
- No changes to the approved MCCM mining operation are proposed as part of the Modification.
- A Response to Submissions (RtS) report will be provided to DPE responding to agency, organisation and individual submissions. This is expected to be submitted in September and will be publicly available.
- DPE will review the RtS as part of their assessment and determination of the modification application.



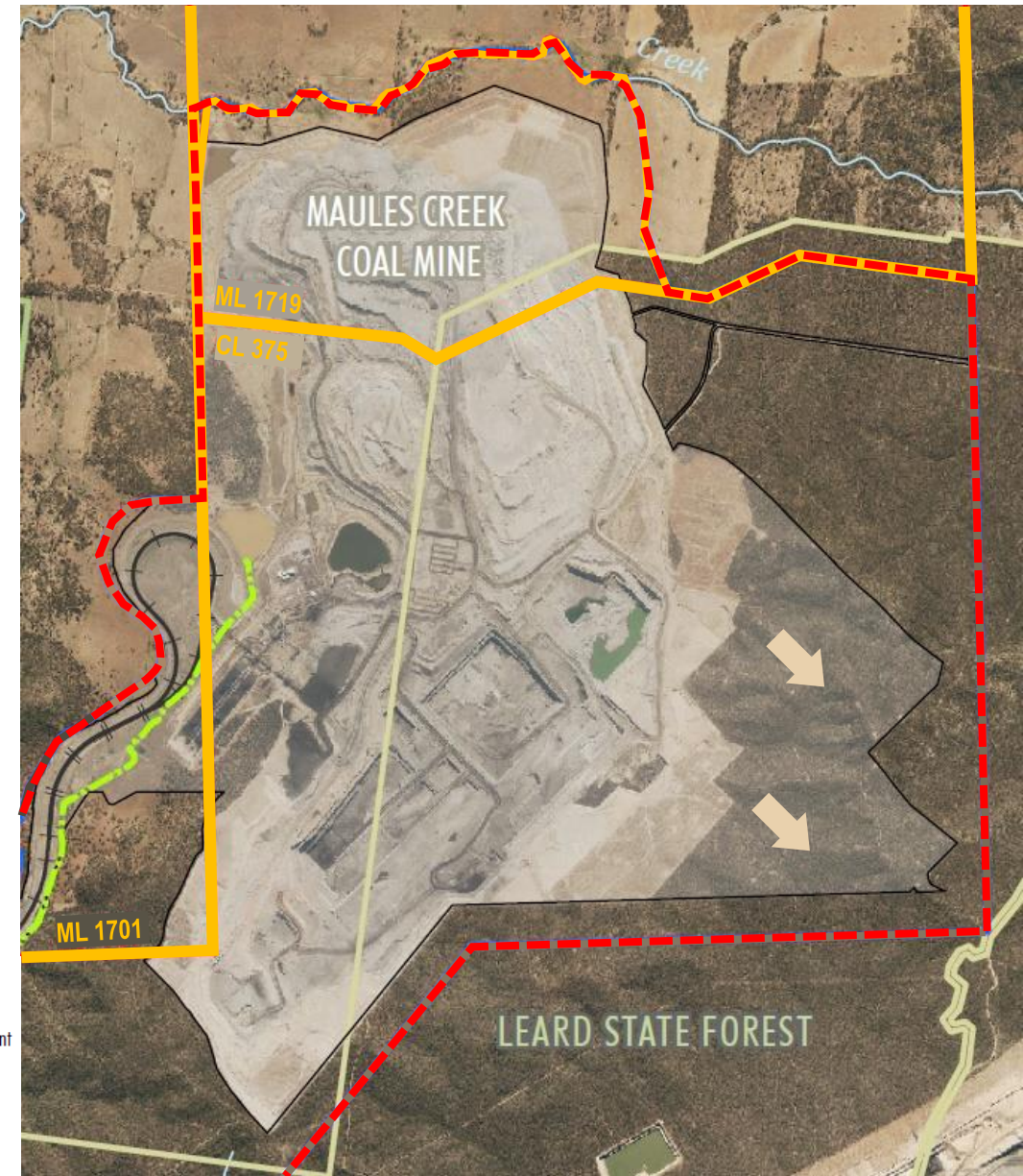
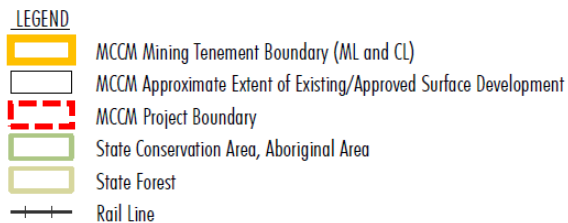
Maules Creek Continuation Project

- Project Approval 10_0138 for the Maules Creek Coal Project issued in 2012
- The MCCM is approved to extract up to 13 Mtpa of ROM until 31 December 2034
- Maules Creek Coal Project EA described potential future open cut mining areas (brown shading)



Maules Creek Continuation Project

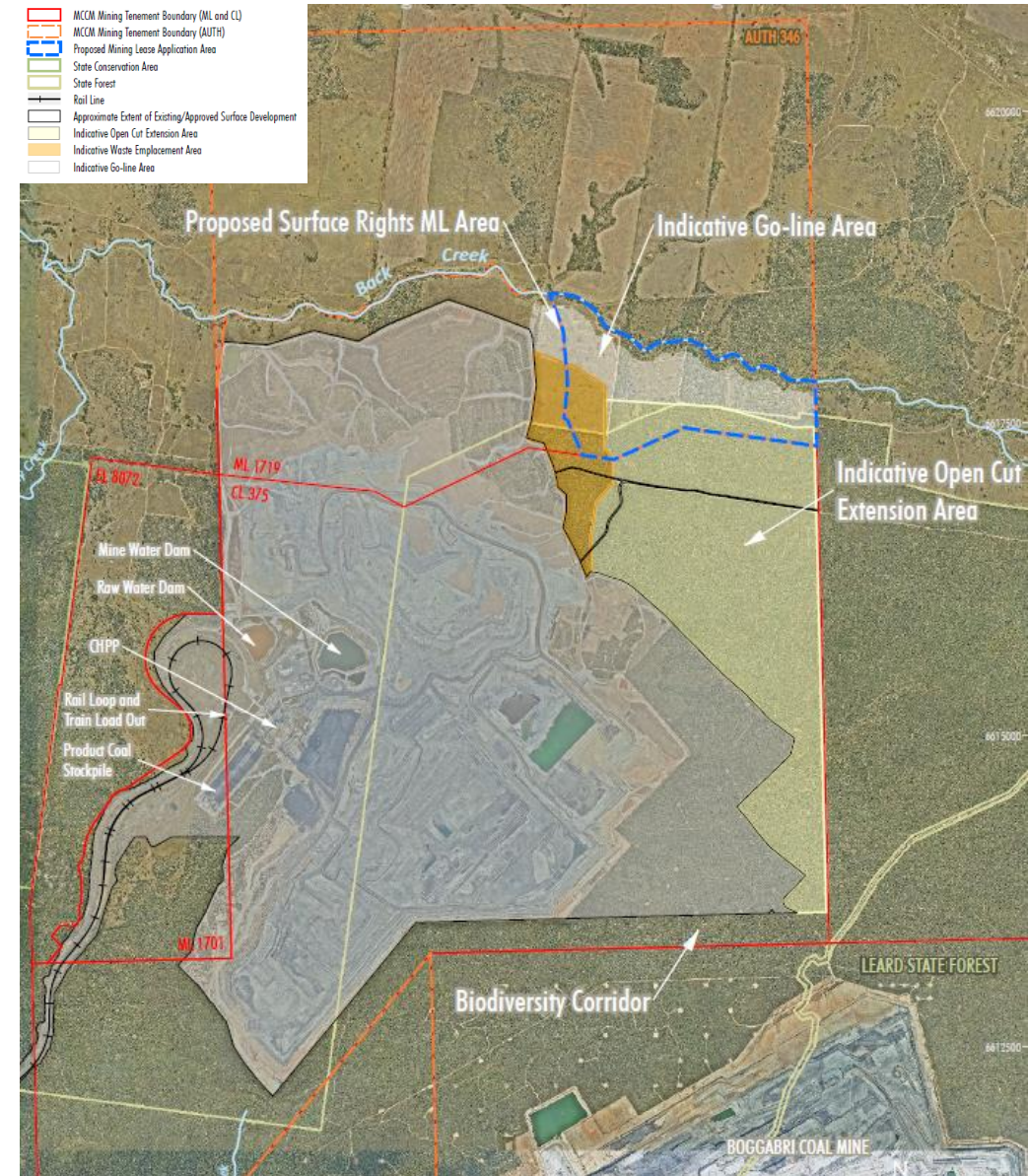
- Open cut mining operations are currently progressing in a south-east direction towards the approved extent of disturbance
- MCCM will become operationally constrained in late 2028 and exhaust approved coal resource by approximately Q1 2030 (i.e. ~4 years ahead of approved mine life of 2034)
- Current workforce would need to be progressively stood down from late 2028
- Whitehaven holds tenements over the area to the east of the approved operations within the Leard State Forest
- 500 m wide Biodiversity corridor conditioned as part of the MCCM and Boggabri Coal Mine project approvals



Continuation Project EIS

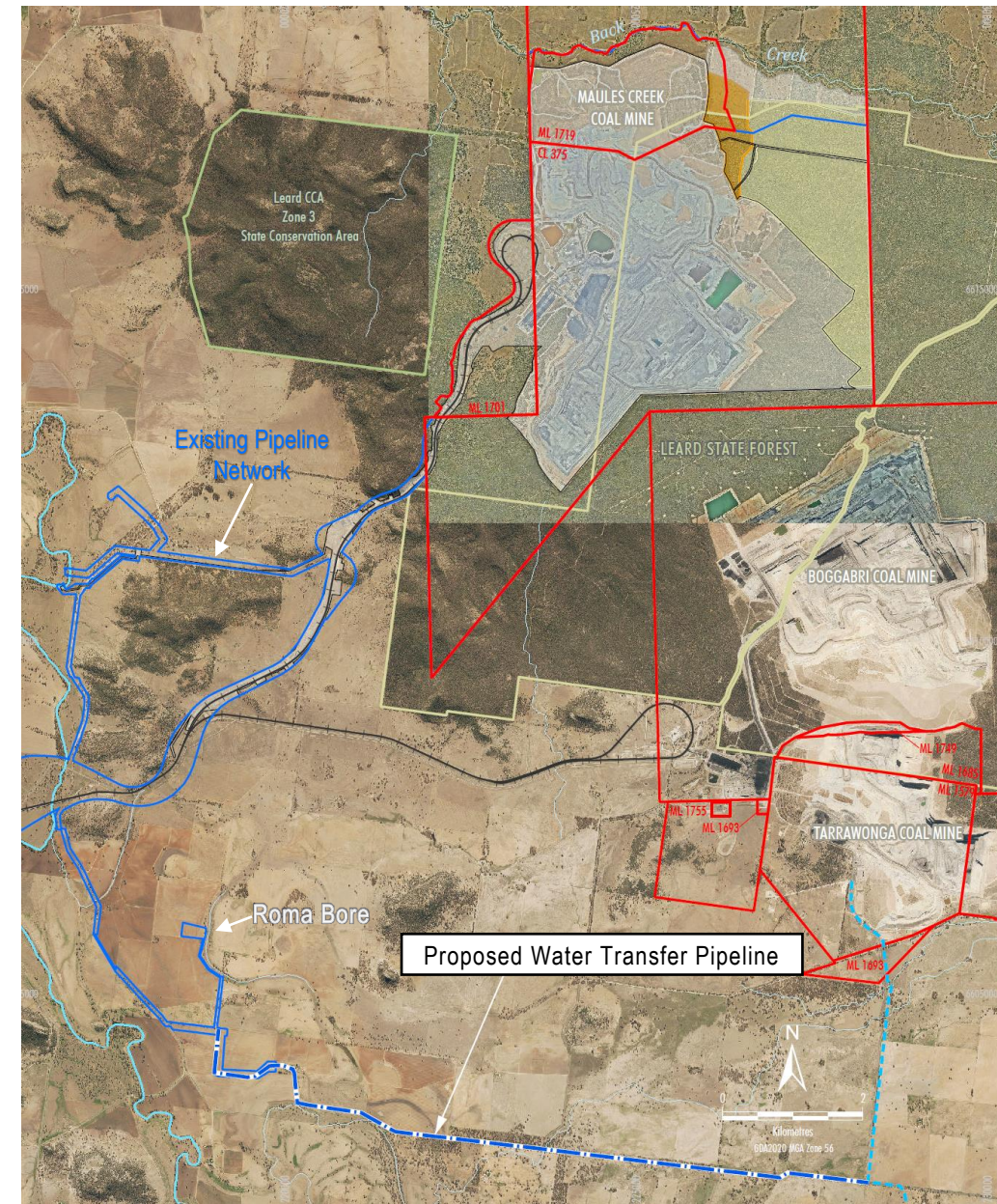
Key Project elements and activities include:

- Continuation of open cut mining operations and workforce beyond 2030 to 2043
- Up to 14 Mtpa of ROM coal (1 Mtpa increase to approved maximum ROM)
- Transport of up to 12.4 Mtpa of product coal (no change to approved maximum rail)
- Continued operation of the existing CHPP, rail and other MCCM infrastructure (with upgrades as required) until 2043
- Final void to be located in the south-east away from Back Creek
- Mine planning and infrastructure options (e.g. remote crushing/conveyor system) being considered
- Surface-rights mining lease to be sought in the north of extension area
- Continued employment of the approximate 800 current workforce



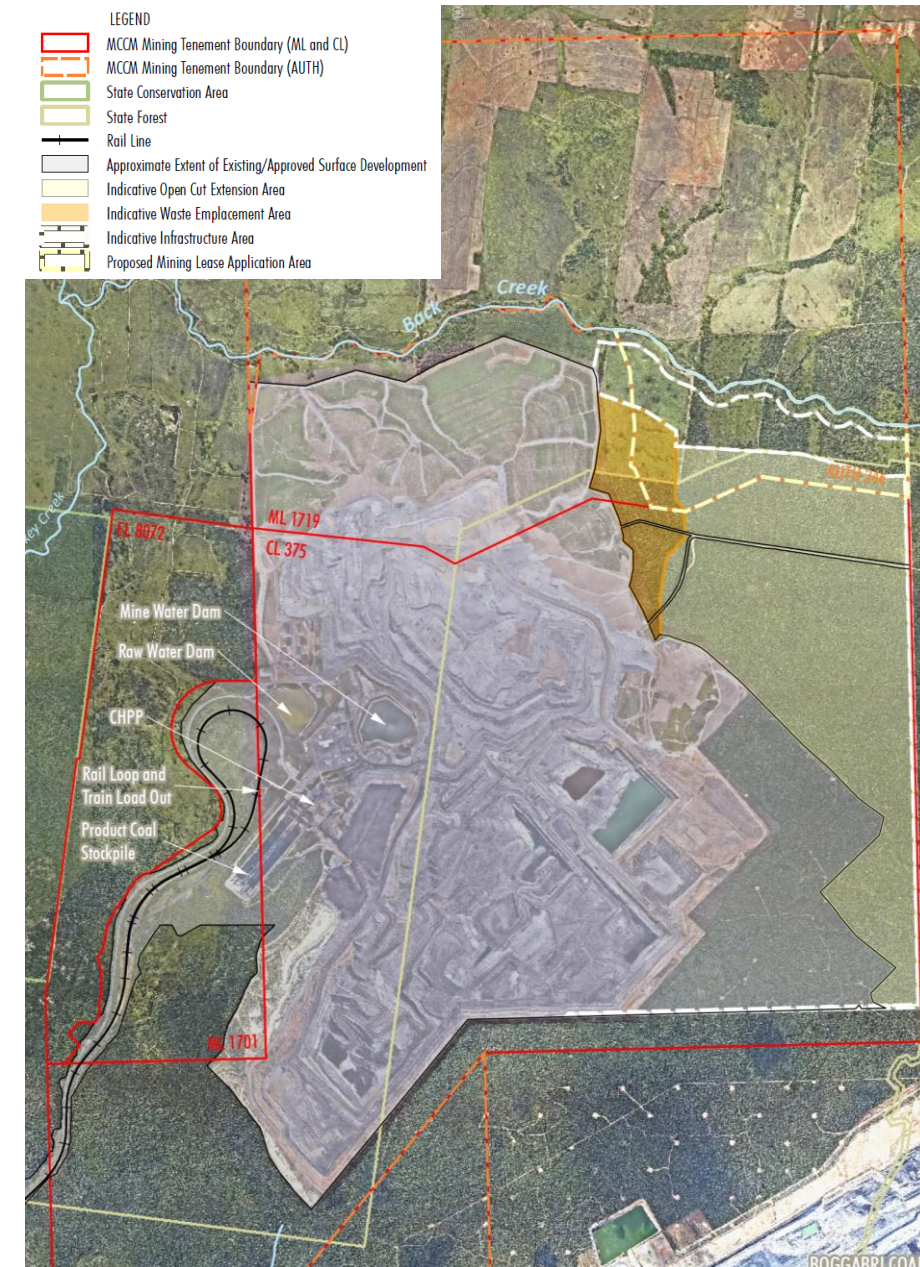
Continuation Project EIS

- Water transfer pipeline to be constructed between MCCM Groundwater Bore and approved Tarrawonga Coal Mine/Vickery Extension Project
- Pipeline to enable water sharing efficiencies with the other mining operations
- Assists with management of dry and wet conditions
- Indicative pipeline specification
 - Buried along Rangari Rd reserve (~1.3m deep trench)
 - HDPE 355mm (14in) PN16 Polypipe watermain
 - Total Length ~10.5km
 - Design Standard to Water Supply Code of Australia



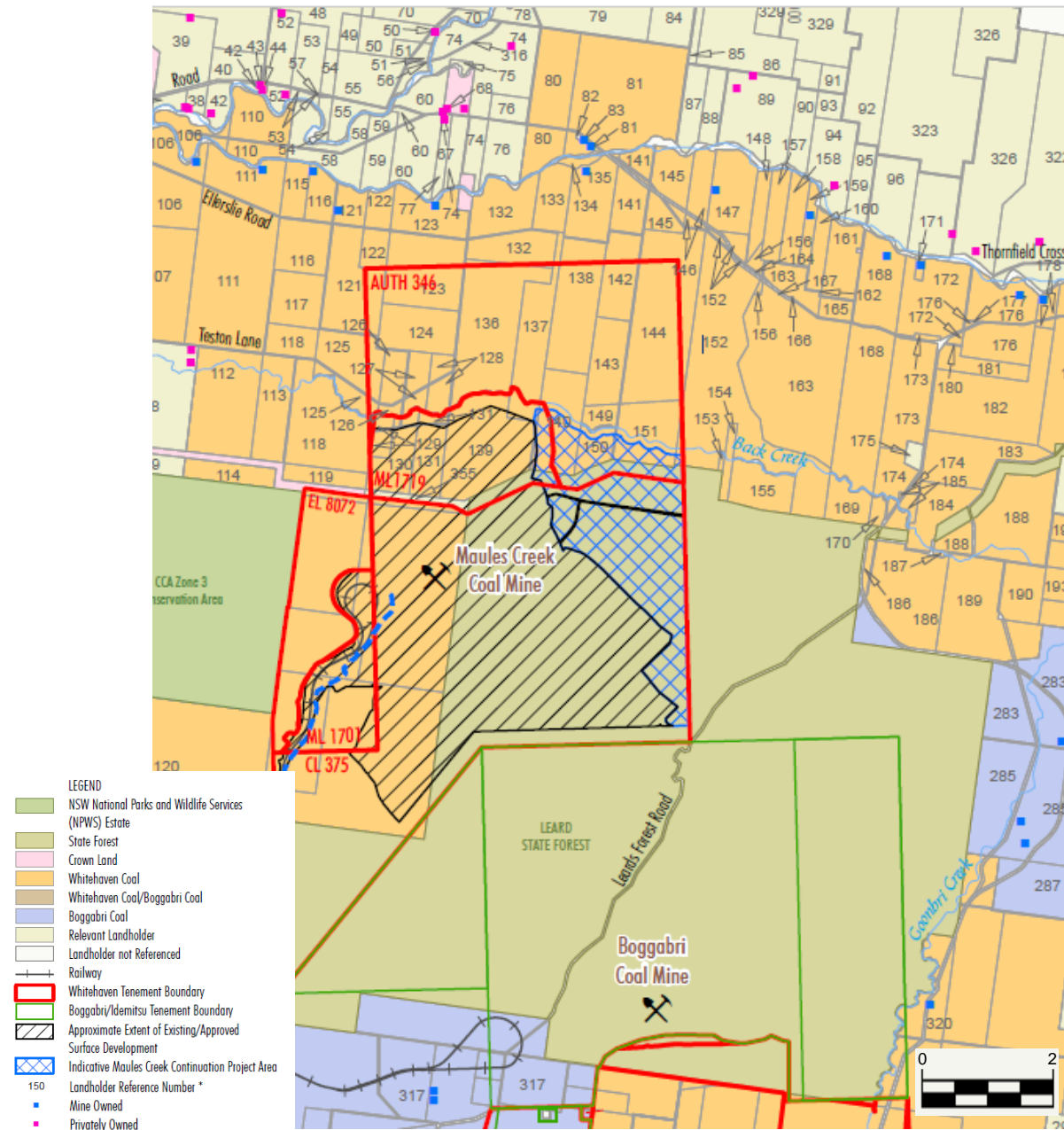
Key Assessment Considerations

- Robust biodiversity assessment including survey of the broader Leard State Forest and potential offset properties
- Dedicated Greenhouse Gas Assessment to address contemporary/emerging legislation and policies
- Substantive fieldwork program underway to further understanding of environmental features and constraints (e.g. TEM, soil/alluvial transects, groundwater monitoring expansion, stream mapping)
- Cumulative impact assessment including consideration of BTM Complex and relevant feedback received from Government
- Incumbent consultants to be used for relevant impact assessments with update of existing models as required



Land Ownership

- Proposed operations located within the Leard State Forest and on WHC-owned land
- Substantial Whitehaven land ownership surrounding the existing and proposed operations
- Operations approximately 4.4 km from nearest private receiver with no acquisition rights (consistent with approved operations)



Indicative Approvals Timing

- Environmental studies and modelling – ongoing
- Scoping Report lodgement – late 2023
 - Scope of all environmental assessments to be reviewed upon receipt of SEARs
- EPBC Referral – late 2023
- EIS lodgement – late 2024
- Consultation to occur throughout EIS preparation and assessment

Keep track of the application and process through the Whitehaven Coal website

Thank you

www.whitehavencoal.com.au



WHITEHAVEN COAL

Maules Creek Coal Mine Community Consultative Committee Meeting #42

Environmental Monitoring Report For the Q2 period, April – June 2023

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. LAeq, 15minute; GENERATED BY MCCM AGAINST OPERATIONAL DAY NOISE CRITERIA; APRIL – JUNE 2023.

The results show that MCCM is within EPL 20221 compliance limits, that operations did not exceed the applicable LAeq (15minute) criteria of 35dB 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	27/04/2023 22:30	0.4	251	F	No	35	45	IA	IA	Nil	Nil
NM2	27/04/2023 23:30	0.2	200	F	No	39	45	<20	<20	Nil	Nil
NM3	27/04/2023 23:23	0.5	224	F	No	35	45	<20	<20	Nil	Nil
NM4	27/04/2023 23:00	0.2	122	F	No	35	45	IA	IA	Nil	Nil
NM5	27/04/2023 22:04	0.8	281	F	No	35	45	IA	IA	Nil	Nil
NM6	27/04/2023 23:55	0.5	104	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	11/05/2023 22:30	0.6	121	F	No	35	45	<20	<20	Nil	Nil
NM2	11/05/2023 23:30	1.0	218	F	No	39	45	IA	IA	Nil	Nil
NM3	12/05/2023 0:22	1.5	170	D	No	35	45	IA	IA	Nil	Nil
NM4	11/05/2023 23:00	0.5	178	F	No	35	45	NM	NM	Nil	Nil
NM5	11/05/2023 22:00	0.6	242	F	No	35	45	IA	IA	Nil	Nil
NM6	11/05/2023 23:55	1.1	197	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 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	7/06/2023 22:30	0.4	128	F	No	35	45	IA	IA	Nil	Nil
NM2	7/06/2023 23:30	0.3	300	F	No	39	45	IA	IA	Nil	Nil
NM3	7/06/2023 23:22	0.3	306	F	No	35	45	IA	IA	Nil	Nil
NM4	7/06/2023 23:00	0.4	197	F	No	35	45	IA	IA	Nil	Nil
NM5	7/06/2023 22:00	0.6	136	F	No	35	45	IA	IA	Nil	Nil
NM6	7/06/2023 23:54	0.8	243	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 NPfl.
2. Site-only L_{Aeq,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	SSW
May	S
June	SW

Blast Monitoring

There was 29 blasts at MCCM during Q2 2023. 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 (Lin Peak)	All	29	92.03	108.8	120	No
Vibration	mm/s		29	0.16	1.29	10	No

Air Quality

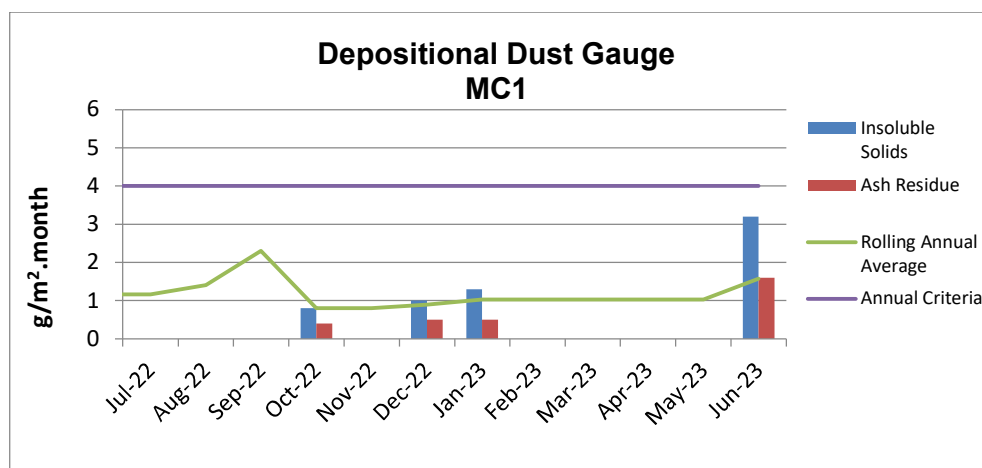
A. Total Depositional Dust

The 12 monthly rolling annual average remains below the relevant Project Approval (PA 10_0138) criteria of 4g/m²/month for the respective monitoring points.

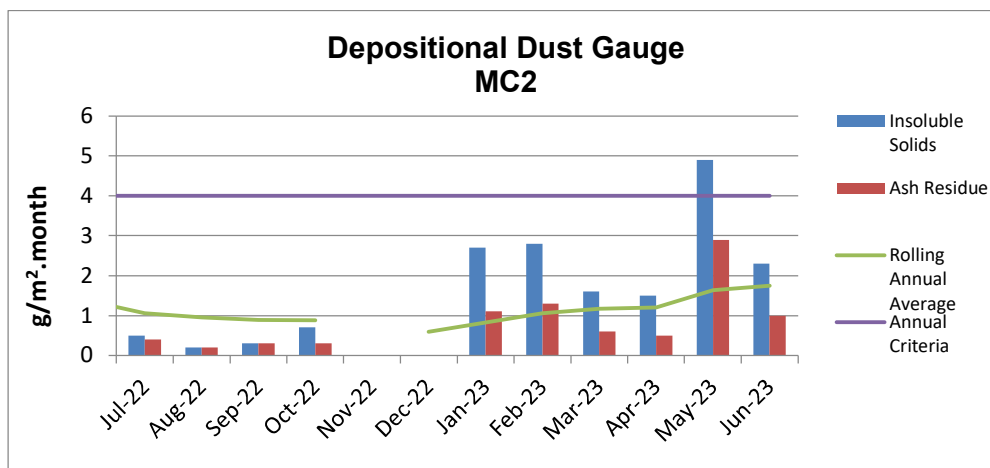
Table 6 – Depositional Dust Gauge Results [g/m²/month]

MONTH	MC1	MC2	MC3	MC4
April	7.7 ^c	1.5	2.8	13.8 ^c
May	5.9 ^c	4.9	4.8	1.0
June	3.2	2.3	2.0	1.0
12 MONTH ROLLING AVERAGE	1.6	1.8	2.5	1.2

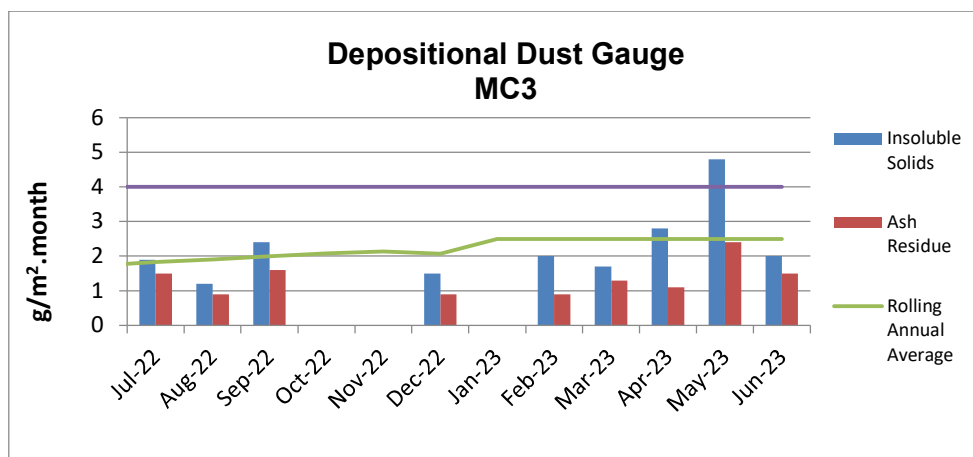
^c samples contaminated by bird dropping, decomposed insects or vegetable matter.



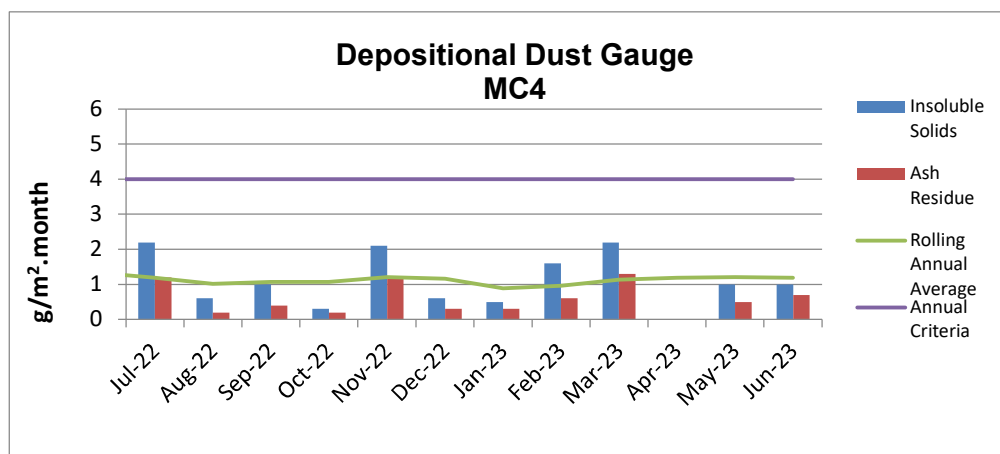
* Blank cells indicate sample periods where the sample has been contaminated and excluded from the results tables due to contaminated material (insect larvae, bird droppings, vegetation etc.).



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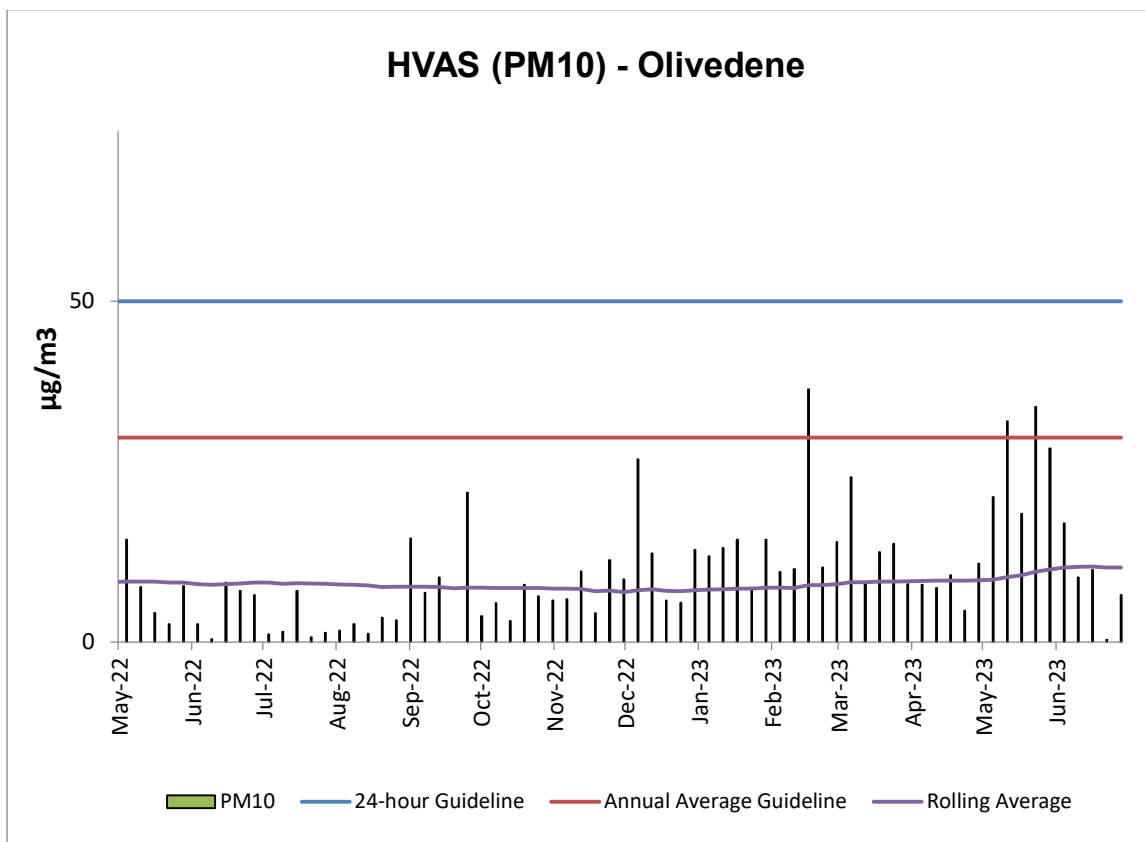


* Blank cells indicate sample periods where the sample has been contaminated and excluded from the results tables due to contaminated material (insect larvae, bird droppings, vegetation etc.).

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 $\mu\text{g}/\text{m}^3$.

HVAS PM₁₀ Rolling Annual Average as of June was **11.0 $\mu\text{g}/\text{m}^3$** , which is below the Annual Average Guideline of 30 $\mu\text{g}/\text{m}^3$.



C. TEOM - PM10 Results

The annual rolling average for PM10 at the Maules Creek Coal TEOM1 was **8.1 $\mu\text{g}/\text{m}^3$** , which is below the Project Approval annual average criteria of **30 $\mu\text{g}/\text{m}^3$** as shown in the following figure. There have been no exceedances of the 24-hour average for Q2 2023.

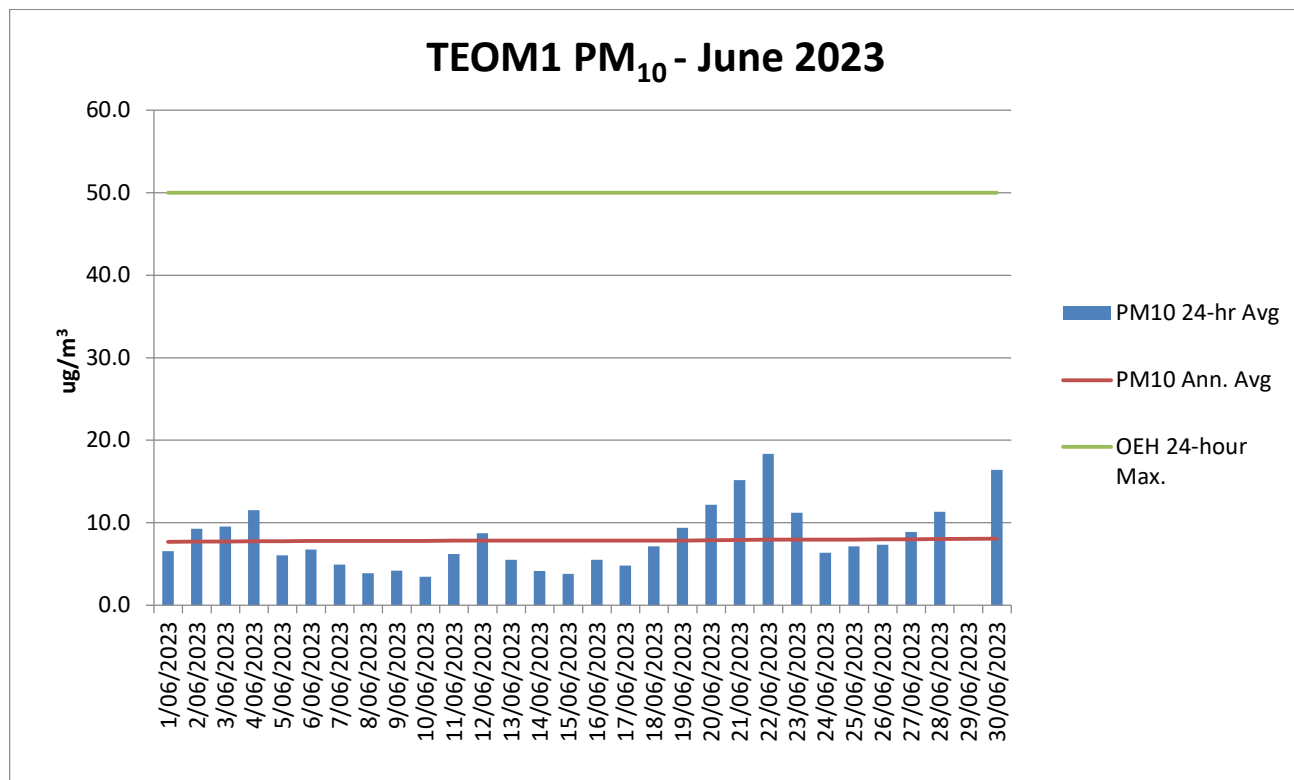


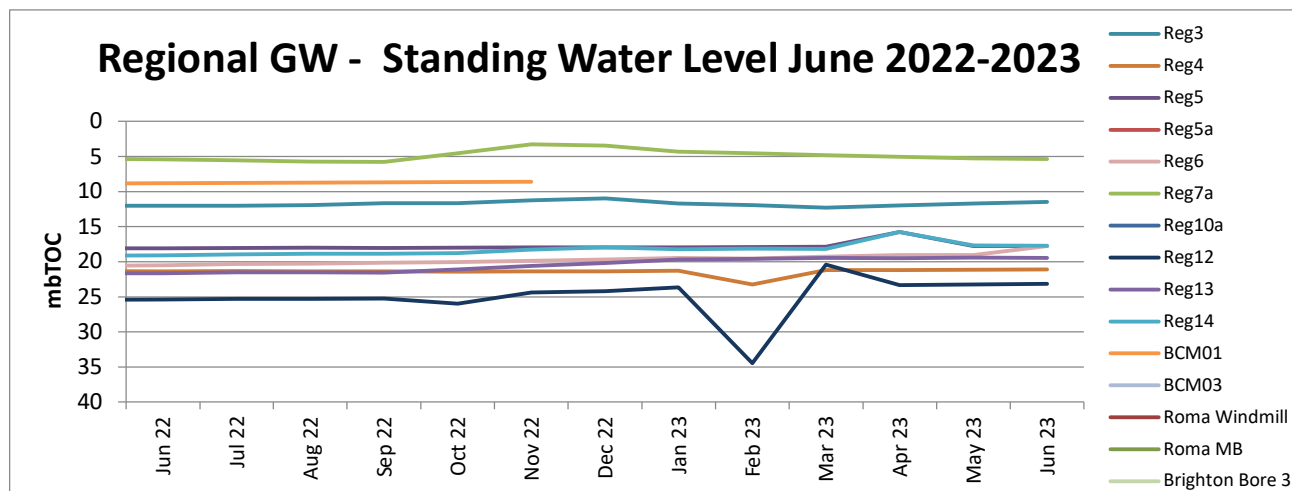
Figure 1 - TEOM Result – Particulate Matter PM₁₀ $\mu\text{g}/\text{m}^3$

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

Water Monitoring

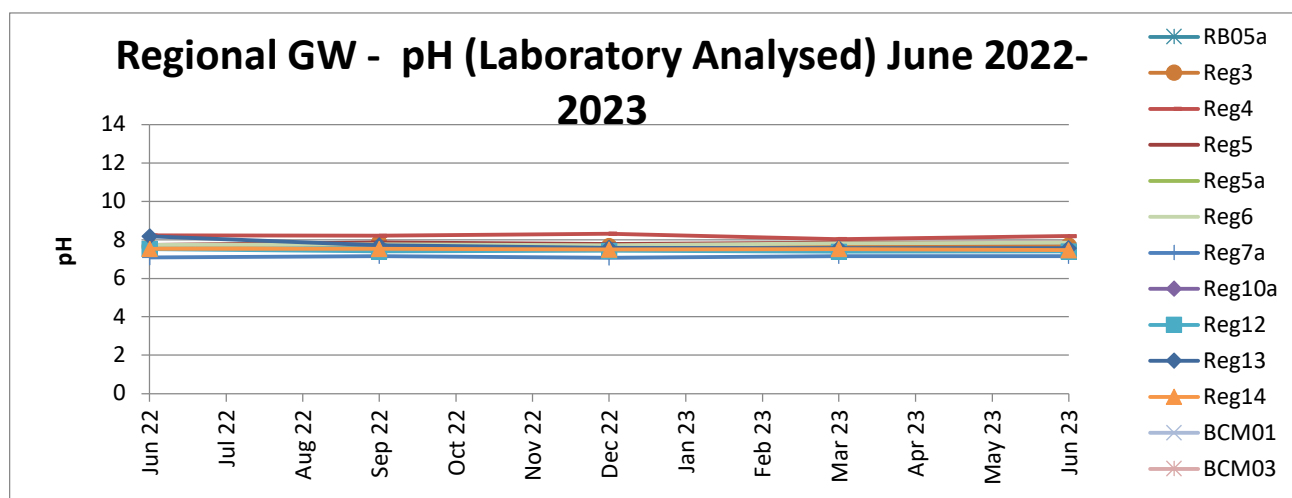
A. Groundwater

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.



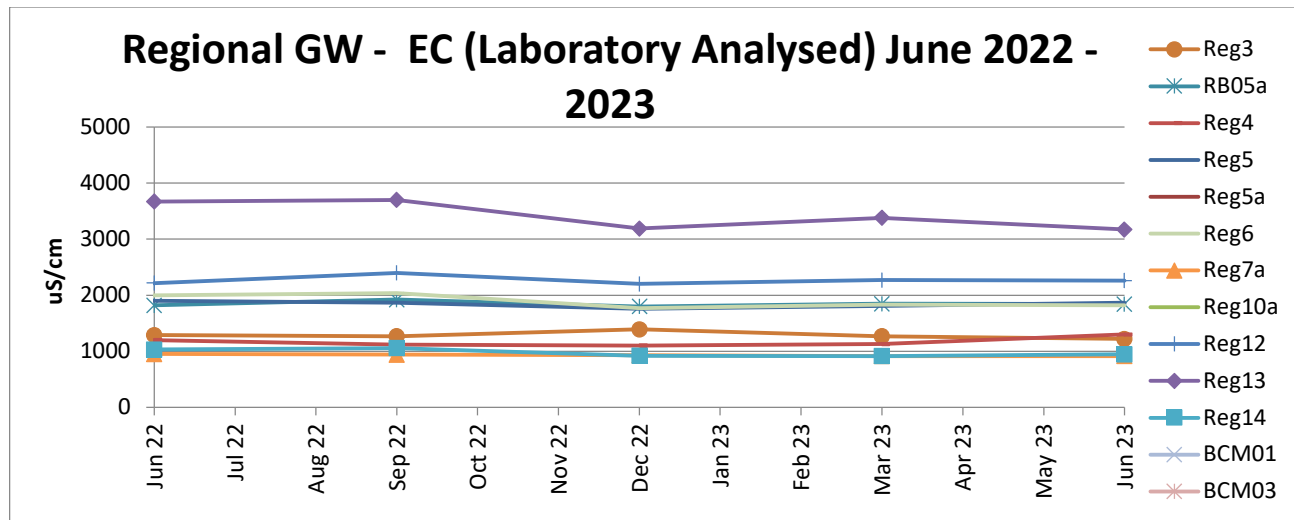
Acidity / Alkalinity (pH)

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 500 $\mu\text{S}/\text{cm}$ to 2,500 $\mu\text{S}/\text{cm}$, with the exception of monitoring bore Reg13 which has a historic groundwater EC range of 2,500 $\mu\text{S}/\text{cm}$ to 4,100 $\mu\text{S}/\text{cm}$. Within the last twelve months EC has remained static.

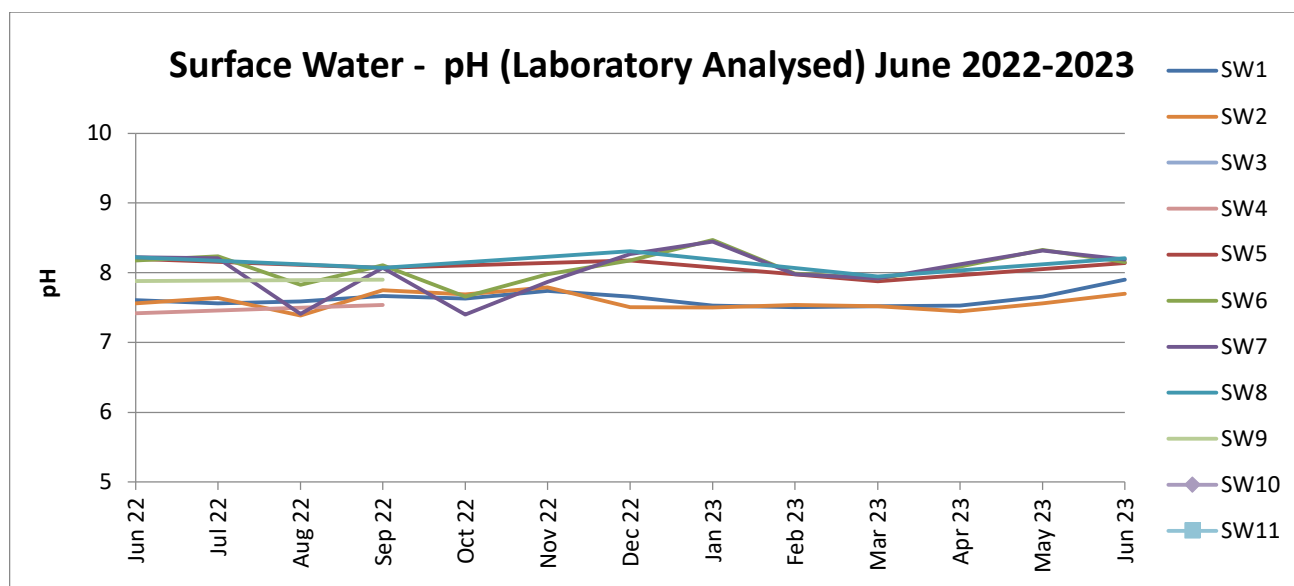


B. Surface Water – Creeks and Rivers

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. There are eleven surface water monitoring points, of which a maximum of six sites were able to be sampled during Q2 2023.

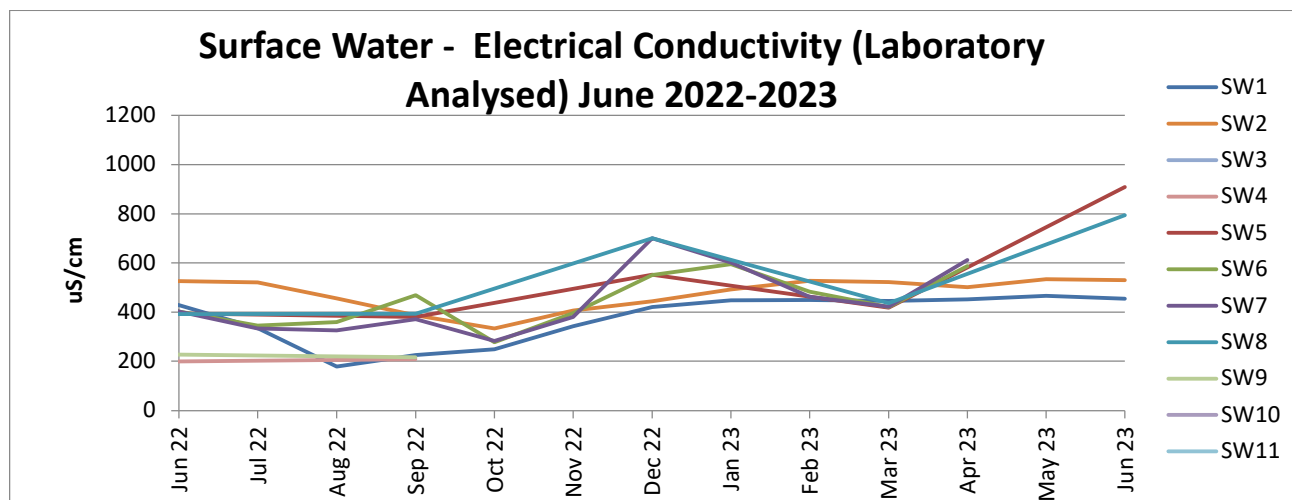
Acidity / Alkalinity (pH)

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



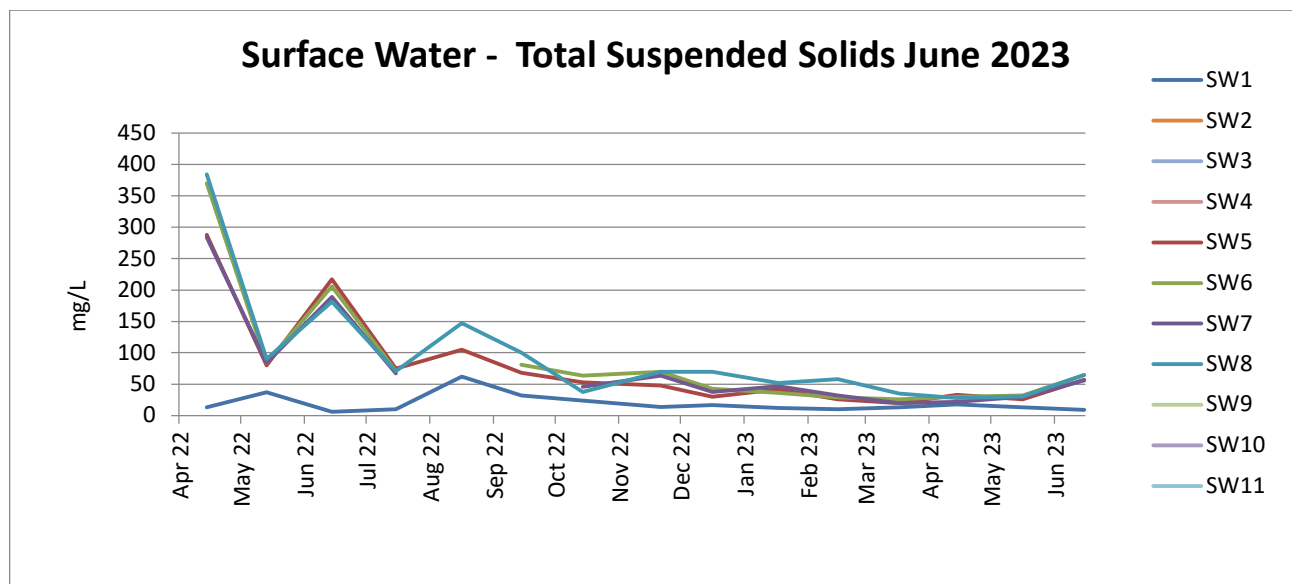
Electrical Conductivity

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.



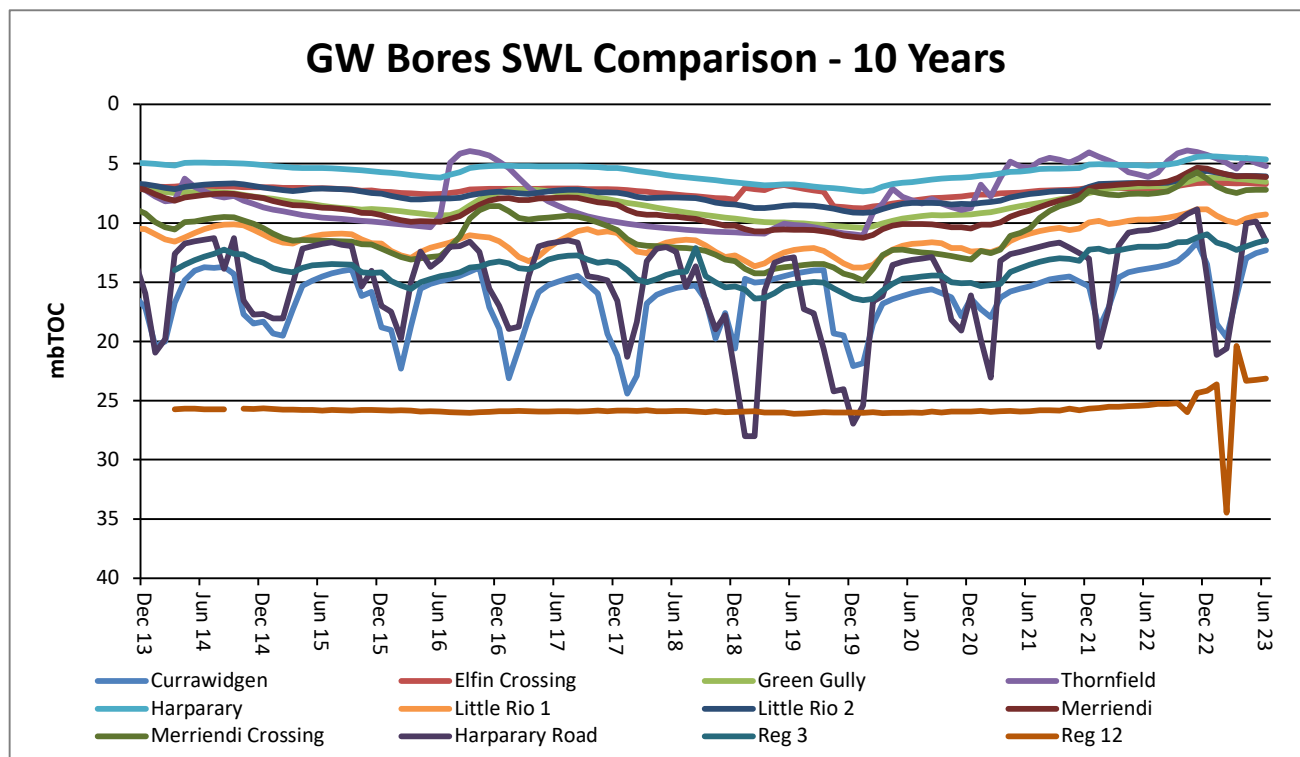
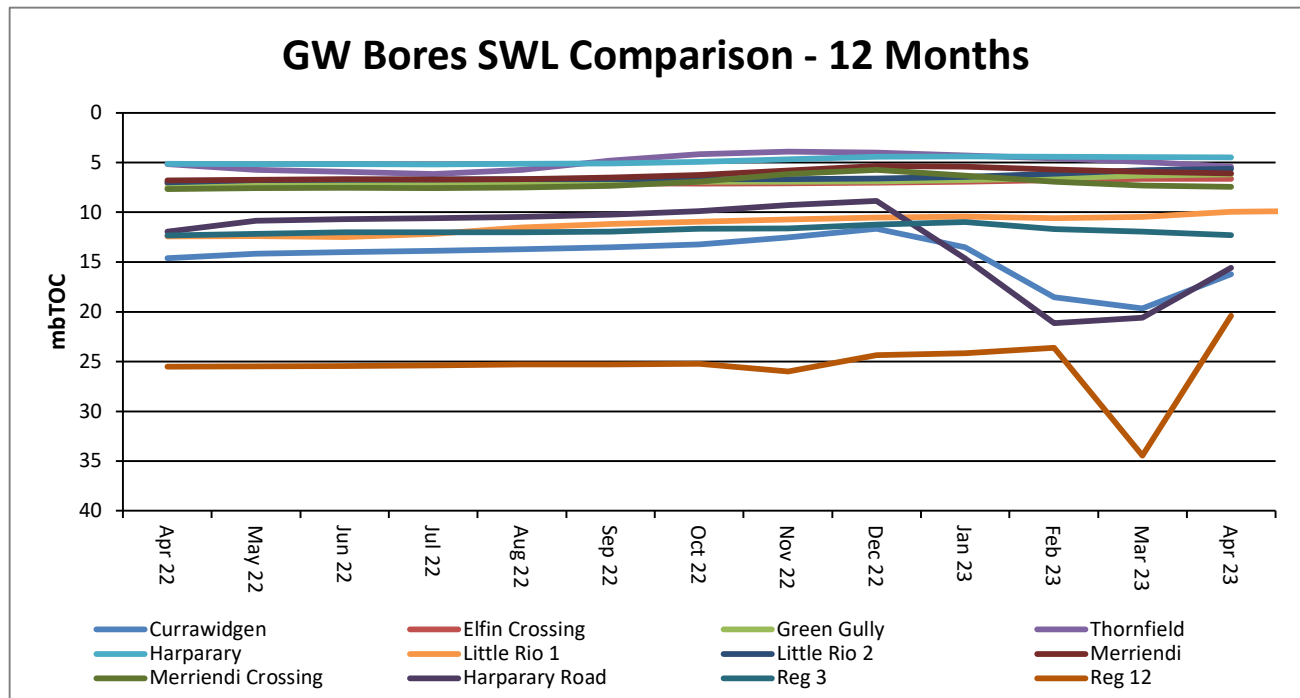
Total Suspended Solids (TSS)

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. The Q2 results have stabilised on the back of significant rainfall events in Q4 2022 and Q1 2023, as demonstrated in the graph below.



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 20.9ha of rehabilitation for CY23.

Feral Animal Management

The proposed MCC feral animal management control program has been updated to accommodate the increase in feral species across the region. Additional waves of baiting and trapping are to be implemented throughout Q3 and Q4.

Community Complaints

No complaints were received during Q2 2023.