

**Notes:** Notes of the 36th Meeting of the Maules Creek Coal Community Consultative Committee  
Held at the Boggabri Golf Club

**Wednesday 23 February 2022**

**Members Present:** Blair Meyers (BM) – WHC, Darren Swain (DS) – WHC, Elizabeth O’Hara (EOH) – Community Representative, Emma Bulkeley (EB) – WHC, Jack Warnock (JW) – Community Representative, Robyn Grover (RG) – Community Representative, Steve Eather (SE) – Community Representative, Talan Breaden (TB) – WHC

**Apologies:** Libby Laird (LL) – Maules Creek Community Representative, Lyndell Crowley (LC) – Community Representative, Roz Druce (RD) – Community Representative (Alternate), Simone Moodie (SMo) – Community Aboriginal Representative

**Independent Chair:** David Ross (DR)

**Independent Secretary:** Debbie Corlet (DC)

<b>Agenda Items</b>	<b>Who to Present</b>
1. Apologies	DR
2. Declaration of pecuniary or other interests	DR
3. Confirmation of the Minutes of the previous meeting – Wednesday 3 November 2021	DR
4. Business arising from the previous minutes – Action List Distributed	DR
5. Company Report and Overview of Mine	WHC
6. General Business	DR
7. Next Meeting – <b>Wednesday 25 May 2022</b>	ALL

Agenda Item	Discussion	Action/By Whom
1.	<b>Welcome and Apologies</b> – DR welcomed everyone to the first CCC meeting of the year. DR welcomed Talan from WHC (replacing Ross Wilson) and Elizabeth who is a new community representative	
2.	<b>Declaration of pecuniary or other interests</b> – 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 daughter at Maules Creek.	
3.	<b>Confirmation of the Minutes of the previous meeting</b> – The CCC endorsed the minutes from the previous meeting.	
4.	<p><b>Business Arising from the previous minutes</b></p> <p>DR – Members have received responses to actions from the previous meeting. DR to send a copy to EOH for her review.</p> <p><b>DR to clarify re SMO interests</b> – SMO confirmed has no interests re the mine.</p> <p><b>DR to enquire with EPA re status of Namoi quarterly air quality reports</b> – Completed.</p> <p><b>DR to write to Council re VPA</b> – This is still ongoing. To remain open.</p>	<p>ACTION 1 – DR to send previous responses from the previous minutes to EOH</p> <p>ACTION 2 – DR to write to Council re VPA</p>
5.	<p><b>Company Reports and Overview of Activities</b></p> <p>FY22 target product – 12.1 – 12.5Mtpa ROM. FY22 Q1 delivered 2.9Mt ROM. January 2022 TRIFR (Recordable injuries per million exposure hours) 6.1 (12MR). Nil recordable injuries for the month of January.</p> <p><b>Health and Safety – COVID-19 Management</b> – Introduction of Rapid Antigen Testing for all MCC workers COVID-19 Vaccination incentive remains open until 28 Feb. EOH – Can you provide more information in relation to COVID leave vs normal please?</p> <p><b>Continuous Improvement Projects</b> – Improvement of control of vehicle interaction and integration of AHS Projects. ‘Tough Enough’ Mental Health campaign facilitated by <i>Rural Adversity Mental Health Program</i></p> <p><b>Noise Monitoring Quality Management</b> – MCCM engaged an independent consultant to conduct at six monitoring locations (NM1 – NM6). MCC monitor LAeq (15 minute), over day, evening and night-time periods and LA1 (1 minute) overnight time periods. All monitoring locations were within compliance limits. EB – LAeq is the measurement in decibels in 15-minute increments for a mining continuum. It takes out the noises of things like birds, frogs and looks at the mining hum. LA1 are noises that would affect your sleep.</p>	<p>ACTION 3 – WHC to provide stats on COVID leave vs normal leave</p>

## **Air Quality Monitoring**

Depositional Dust – At the end of the annual reporting period the 12 monthly rolling annual average remained below the relevant Project Approval (PA 10\_0138) criteria of 4g/m<sup>2</sup>/month for the respective monitoring points. HVAS – The HVAS monitor is located on ‘Olivedene’. No exceedances recorded during the 24-hour average of 50 µg/m<sup>3</sup>, annual average of 9.8 µg/m<sup>3</sup> which is below the Annual Average Guideline of 30 µg/m<sup>3</sup>. TEOM (PM10) – Annual rolling average for TEOM 1 is 6.6 µg/m<sup>3</sup> at 31 December 2021 (criteria 30µg/m<sup>3</sup>).

There is ongoing dust suppressant application across the operation with topsoil spreading and tree planting in progress.

EOH – Asked about the dust suppressant and what was used.

EB – Explained that they use Dustaside which is a molasses-based product.

## **Biodiversity Management**

Feral Animal Management – Most recent routine Feral Animal Control program (December 2021) was constrained due to flooding, the results included: 3 out of total 10 pigs trapped were from the Maules Offset properties. 203 out of total 374 baits (1080) taken were from the Maules Offsets properties.

Flooding – Namoi River flooding inundated parts of the Kelso and Olivedene properties.

Fencing Maintenance – Integrity of fences has been inspected and maintenance to be undertaken.

### Upcoming Works

- Quarterly Pest Animal Monitoring and Control Program in March 2022.
- Continued seasonal Weed Control Programs and Annual Fauna Monitoring.
- Quarterly Threatened Flora Inspections and Programs. Annual Ecological Burn Program.
- Continue Heritage & Ecology Due Diligence Assessments.

There was a discussion about a fire on an offset on Sunday Night. 2 brigades attended. It was caused by a lightning strike. It is believed to be a grass fire, confirmed by SE.

**Community** – Four complaints.

**Community Donations** – For October to December 2021 over \$92,900. Highlights - \$9,000 Gunnedah Week of Speed Committee. \$7,500 to Winanga-Li. \$6,000 to United Hospital Auxiliaries of NSW (Quirindi). \$5,000 to Narrabri Meals on Wheels. \$3,000 to the Pink Up Namoi campaign.

**WHC/MCC Funds provided to Community – WHC Community Investment Committee \$200,000 per year**

- Community Representatives review and determine allocation of funding after applications are received. Representatives are from the 3 local Council areas where WHC operate – chaired by a WHC staff member.
- The Committee meets quarterly to allocate up to \$50,000.

**WHC/MCC Funds provided to Community – WHC ongoing funding programs**

- There are other funding opportunities where WHC has partnerships with Community Groups and provides support on an annual basis, e.g., Westpac Rescue Helicopter Service. These are funded separately to the Community Investment Committee committed \$200,000 budget.

**AHS Project Works** – WHC encountered significant challenges with the upgraded obstacle detection system, proving too sensitive to perform productively in an operational environment. Hitachi have developed new logic to allow operation in a mining environment, testing have yielded a 95% lower false positive stopping rate (False Positive – Stopping for an environment where the truck should be able to travel).

BM – There was a period we weren’t operating. Upgrades and changes to the software and the hardware to improve the efficiency of the system which is now completed and has been up and running for 10-days now.

**Approvals Update**

Modification 9 – BOS and ETL – No changes to modification as previously discussed with CCC. It is anticipated that the Modification application and Modification Report will be lodged in Q1 CY22 and subsequently placed on public exhibition for comment.

ACTION 4 – WHC to advise DR when the exhibition is on

**CCC Briefing – Water – Enforceable Undertaking Update**

- WMP submitted in November 2021, awaiting feedback from the regulators.
- Construction of the four highwall dams due for completion in February. Installation of stream monitoring equipment in March. Aiming for operation of the clean water system by early March, depending on rain.

**Blasting at Maules Creek Mine** – Presentation provides information on blasting, vibration and overpressure.

- **Why is the ground blasted?** We blast the ground to pre-condition it, so that our Mining equipment can mine the broken ground in a safe and efficient manner and uncover the coal.
- BM then described how this is executed.

	<ul style="list-style-type: none"> <li>• <b>What explosives are used?</b> Down lines (detonators). Surface lines (Detonators). Detonating Cord (used for pre-splits). Boosters (initiated by detonator or det cord). Bulk explosives – ANFO, HANFO, Emulsion.</li> <li>• <b>Bulk Explosives</b> – ANFO and Emulsion blends are augered or pumped into the blast hole.</li> <li>• <b>Blast hole Connection</b> – After stemming with gravel to the collar, the downlines at each hole are connected on surface using Nonel connectors, electronic wire or detonating cord.</li> <li>• <b>Vibration</b> – So when a blast is fired at Maules Creek, whether it’s a cast or stand-up blast the opposite of that explosive action is the vibration that can be sometimes felt through the ground. To be more precise, vibration is the propagation of energy waves moving through the ground as an opposite reaction to the movement of blasting ground when the blast is detonated. It is controllable. As the vibration moves away from the area, it will naturally dissipate over time and distance. The goal for WHC is to reduce the amount of vibration at the source, so the time and distance is also reduced. This is done by ensuring timing allows for a limited amount of holes / kilograms of explosives initiating at the same time. WHC also design blasts correctly in alignment to a procedure and detonate in suitable weather conditions.</li> <li>• <b>Over Pressure</b> – Over pressure is registered in decibels (db). Basically, it’s the movement of air, through the atmosphere, and this movement travels in a wave format. In an airborne circumstance, you can’t see it, but you sometimes feel it. When WHC blast you can sometimes hear it, as typically decibels are comparable to the sound of talking.</li> </ul> <p>RG – The noise varies in town, why is that? Bigger area you are blasting maybe?</p> <p>BM – The number of elements plus wind direction, the inversion and size of the blast as well would all have an impact.</p> <p>JW – Drill rigs: is that blasted in one go? Pick an area and put all the drill holes in.</p> <p>BM – Yes, depends on how urgent it is. Some of the products will deteriorate over time, so we’re on a timeline to fire within say 10 days. The blast is determined by the blast crew as well. Could be anything from hours to weeks. We’ll get a survey of the block and engineers will design it..</p>	
<p>6.</p>	<p><b>General Business</b></p> <p>EOH – What is the area to be cleared?</p> <p>EB – Clearing has not commenced as yet. 14.5 hectares to be cleared this year. No koala habitat identified.</p> <p>EOH – Is there a scenario where the clearing won’t happen / continue, like climate change etc. Would WHC consider not clearing?</p> <p>EB – We clear as mining operations require.</p> <p>EOH – How many tyres have been buried and specific locations please.</p> <p>EB – None have been buried since the last CCC.</p>	

	<p>EOH – In the Land Environment Court there was a 3-day hearing and WHC pleaded guilty. Anything you know about this case? Has it been finalised? Do you know the penalty? Will WHC licensing level increase because of this?</p> <p>EB – We don't discuss matters that are before a court.</p> <p>EOH – What is the status of Back Creek?</p> <p>EB – Clean up was completed in 2020.</p> <p>EOH – How many megalitres are being pumped since December and has the water pumped been increasing from 1 December?</p> <p>EB – Not currently pumping water. De-watering hole was removed in 2020. There are no active dewatering bores</p> <p>DR – Mentioned the Environmental Trust and reminded members to discuss with the community or if they are involved in any groups that might have an idea for the funding which is based on environmental projects to ask them to reach out to him.</p>	
7.	<p><b>Next meeting date to be agreed</b> – Next meeting <b>Wednesday 25 May 2022</b> at 2:00 pm, followed by Wednesday 24 August 2022 and Wednesday 26 October 2022.</p>	

Meeting Closed: 3:31 pm

#### Appendix 1: Actions

Page No	Action No	Description	Date Raised
2	1	DR to send previous responses from the previous minutes to EOH	23 February
2	2	DR to write to Council re VPA – From previous meeting – to remain open	3 November
2	3	WHC to provide stats on COVID leave vs normal leave	23 February
4	4	WHC to advise DR when the modification is to be exhibited	23 February

## Appendix 2: Briefing Notes from WHC

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**To:** Maules Creek Coal Mine CCC Members                      **From:** Maules Creek Coal Mine (MCC)

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**Date:** 30 October 2019    **Reference:** Responses to questions MCC CCC November 2021 Meeting

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**Subject:** Responses to MCC CCC Actions and Questions

Action	Response
<p><b>Action 3.</b></p> <p>WHC to add in the link from the Annual Review of property names.</p>	<p>Appropriate link is the Biodiversity Management Plan.</p> <p><a href="https://whitehavencoal.com.au/our-business/our-assets/maules-creek-mine/">https://whitehavencoal.com.au/our-business/our-assets/maules-creek-mine/</a></p> <p>Click on Environmental Management</p> <p>Click on Environmental Management Plans, Strategies and Programs</p> <p>Select MCC-Biodiversity Management Plan</p>
<p><b>Action 5.</b></p> <p>WHC to provide a slide on VPA at next CCC meeting</p>	<p><b>Noted</b></p>
<p><b>Action 6.</b></p> <p>How many tyres were buried in 2018 and how many tonnes?</p>	<p>229 tyres were buried in 2018.</p>
<p><b>Action 7.</b></p> <p>EB to report back on when the pipes were removed</p>	<p>The infrastructure was removed from the Marlow Downs property in September 2021.</p>
<p><b>Action 8.</b></p> <p>WHC to report what land is owned by Red Chief.</p>	<p>MCC to provide a map at the next CCC.</p>
<p><b>Appendix 3. Questions from CCC Member</b></p>	<p><b>Response</b></p>
<p><b>Question 1.</b></p> <p>Clarifying the issues from Mod 8: Can Whitehaven be asked to provide a map showing land ownership. There is no indication of which land is owned by Red Chief.</p>	<p>See above</p>
<p><b>Question 2.</b></p> <p>Please outline specific details of MCC's 'Proactive Noise Management System' as specified in relation to Mod. 8 - to assure the local community that there will not be any increase in noise from the existing noise limits as stated in the Project Approval, if the Mod 8 is approved.</p>	<p>MCC's 'proactive noise management systems' are outlined through the approved MCC Noise Management Plan</p> <p><a href="https://whitehavencoal.com.au/our-business/our-assets/maules-creek-mine/">https://whitehavencoal.com.au/our-business/our-assets/maules-creek-mine/</a></p> <p>Click on Environmental Management</p> <p>Click on Environmental Management Plans, Strategies and Programs</p> <p>Select MCC-Noise Management Plan</p>
<p><b>Question 3.</b></p> <p>Has MCC given EPA all recorded co-ordinates (easting, northing and elevation) of each</p>	<p>MCC has provided the EPA with all information requested.</p>

<p>disposal location of the illegally buried 229 tyres in 2018, along with all individual Tyre make, size and identification of those tyres?</p>	
<p><b>Question 4.</b> Where is the onsite Environmental Impact Assessment for the Burial of ORT at MCCM? Not reports relied upon from other sources, but specific MCCM burial sites that could impact groundwater or rehabilitation.</p>	<p>All supporting documentation as required for Modification 8 was submitted to the DPIE in the Modification report.</p>
<p><b>Letter from Maules Creek Branch of the Country Women’s Association of NSW</b></p>	<p>We note the letter has not been signed. Clearing will be undertaken as per the approved Maules Creek Coal Mine Mining Operations Plan.</p>

# Maules Creek Coal Mine Community Consultative Committee Meeting #36

## Environmental Monitoring Report For the Q4 period, October – December 2021

### **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. The monitoring was carried out over October – December 2021.

#### **A. LAeq, 15minute; GENERATED BY MCCM AGAINST OPERATIONAL DAY NOISE CRITERIA; OCTOBER – DECEMBER 2021.**

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 - October Noise Monitoring**

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies <sup>1</sup>	MCCP LAeq dB <sup>2</sup>	Exceedance dB <sup>3</sup>
NM1	19/10/2021 22:30	0.9	0.0	35	Yes	27	Nil
NM2	19/10/2021 23:46	0.6	0.0	39	Yes	<25	Nil
NM3	19/10/2021 23:37	0.7	0.0	35	Yes	IA	Nil
NM4	19/10/2021 23:00	0.5	0.0	35	Yes	<25	Nil
NM5	19/10/2021 22:00	0.6	0.0	35	Yes	28	Nil
NM6	20/10/2021 00:13	0.4	0.0	35	Yes	<20	Nil

**Notes:**

- Noise emission limits do not apply during periods of rainfall or winds greater than 3 metres per second (at a height of 10 metres);
- Site-only LAeq,15minute attributed to MCCP, including modifying factors if applicable; and
- NA in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in project approval.

**Table 2 – November Noise Monitoring**

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies <sup>1</sup>	MCCP LAeq dB <sup>2</sup>	Exceedance dB <sup>3</sup>
NM1	03/11/2021 22:30	0.4	0	35	Yes	IA	Nil
NM2	03/11/2021 23:30	0.7	0	39	Yes	IA	Nil
NM3	03/11/2021 23:28	0.7	0	35	Yes	IA	Nil
NM4	03/11/2021 23:00	0.2	0	35	Yes	IA	Nil
NM5	03/11/2021 22:00	0.6	0	35	Yes	IA	Nil
NM6	03/11/2021 23:56	0.9	0	35	Yes	IA	Nil

**Notes:**

- Noise emission limits do not apply during periods of rainfall or winds greater than 3 metres per second (at a height of 10 metres);
- Site-only LAeq,15minute attributed to MCCP, including modifying factors if applicable; and
- NA in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in project approval.

**Table 3 - December Noise Monitoring**

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies <sup>1</sup>	MCCP LAeq dB <sup>2</sup>	Exceedance dB <sup>3</sup>
NM1	15/12/2021 22:30	0.3	0.0	35	Yes	23	Nil
NM2	16/12/2021 00:00	0.5	0.0	39	Yes	<20	Nil
NM3	15/12/2021 23:37	0.4	0.0	35	Yes	1A	Nil
NM4	16/12/2021 00:30	0.2	0.0	35	Yes	<20	Nil
NM5	15/12/2021 22:01	0.5	0.0	35	Yes	<25	Nil
NM6	16/12/2021 01:00	0.1	0.0	35	Yes	1A	Nil

**Notes:**

1. Noise emission limits do not apply during periods of rainfall or winds greater than 3 metres per second (at a height of 10 metres);
2. Site-only LAeq,15minute attributed to MCCP, including modifying factors if applicable; and
3. NA in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in project approval.

**B. LA1, 1minute; GENERATED BY MCC AGAINST OPERATIONAL NIGHT NOISE CRITERIA; October – December 2021.**

MCC’s EPL 20221 also has a ‘1 Minute - Night’ criteria (LA1) that applies from 10pm to 7am Monday to Saturday & 10pm to 8am Sundays and Public Holidays. Results are shown on tables 4-6.

The results show that MCCM is within EPL 20221 compliance limits, that operations did not exceed the applicable LA1 (1minute) criteria of 45dB.

**Table 4– October Noise Monitoring – Night**

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies <sup>1</sup>	MCCP LA1,1min dB <sup>2</sup>	Exceedance dB <sup>3</sup>
NM1	19/10/2021 22:30	0.9	0.0	45	Yes	29	Nil
NM2	19/10/2021 23:46	0.6	0.0	45	Yes	30	Nil
NM3	19/10/2021 23:37	0.7	0.0	45	Yes	1A	Nil
NM4	19/10/2021 23:00	0.5	0.0	45	Yes	<25	Nil
NM5	19/10/2021 22:00	0.6	0.0	45	Yes	31	Nil
NM6	20/10/2021 00:13	0.4	0.0	45	Yes	<20	Nil

**Notes:**

1. Noise emission limits do not apply during periods of rainfall or winds greater than 3 metres per second (at a height of 10 metres);
2. Site-only LAeq,15minute attributed to MCCP, including modifying factors if applicable; and
3. NA in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in project approval.

**Table 5 – November Noise Monitoring – Night**

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies <sup>1</sup>	MCCP LA1,1min dB <sup>2</sup>	Exceedance dB <sup>3</sup>
NM1	03/11/2021 22:30	0.4	0	45	Yes	IA	Nil
NM2	03/11/2021 23:30	0.7	0	45	Yes	IA	Nil
NM3	03/11/2021 23:28	0.7	0	45	Yes	IA	Nil
NM4	03/11/2021 23:00	0.2	0	45	Yes	IA	Nil
NM5	03/11/2021 22:00	0.6	0	45	Yes	IA	Nil
NM6	03/11/2021 23:56	0.9	0	45	Yes	IA	Nil

**Notes:**

- Noise emission limits do not apply during periods of rainfall or winds greater than 3 metres per second (at a height of 10 metres);
- Site-only LAeq,15minute attributed to MCCP, including modifying factors if applicable; and
- NA in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in project approval.

**Table 6 – December Noise Monitoring – Night**

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies <sup>1</sup>	MCCP LA1,1min dB <sup>2</sup>	Exceedance dB <sup>3</sup>
NM1	15/12/2021 22:30	0.3	0.0	45	Yes	28	Nil
NM2	16/12/2021 00:00	0.5	0.0	45	Yes	<20	Nil
NM3	15/12/2021 23:37	0.4	0.0	45	Yes	IA	Nil
NM4	16/12/2021 00:30	0.2	0.0	45	Yes	<20	Nil
NM5	15/12/2021 22:01	0.5	0.0	45	Yes	<25	Nil
NM6	16/12/2021 01:00	0.1	0.0	45	Yes	IA	Nil

**Notes:**

- Noise emission limits do not apply during periods of rainfall or winds greater than 3 metres per second (at a height of 10 metres);
- Site-only LAeq,15minute attributed to MCCP, including modifying factors if applicable; and
- NA in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in project approval.

**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 7 - Prevailing Wind Direction**

Monitoring Date	Prevailing Wind Direction
October	SW
November	SSE
December	SE

**Blast Monitoring**

There were 21 blasts at MCCM during Q4 2021. All blast monitoring results recorded within the reporting period have complied with applicable overpressure and ground vibration limits specified in the respective approvals.

**Table 8 – Blast Results Summary**

Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Noise	dB (Lin Peak)	All	21	95.81	114.9	120	No
Vibration	mm/s		21	0.20	1.52	10	No

**Air Quality**

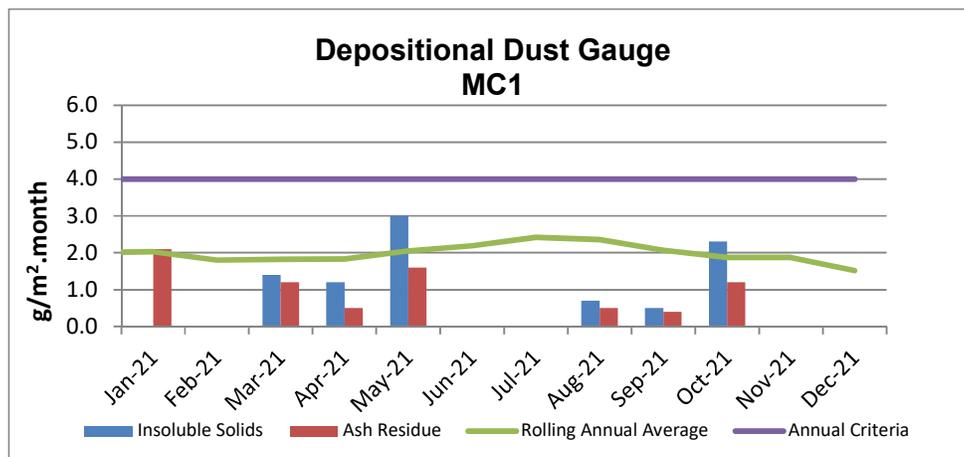
**A. Total Depositional Dust**

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

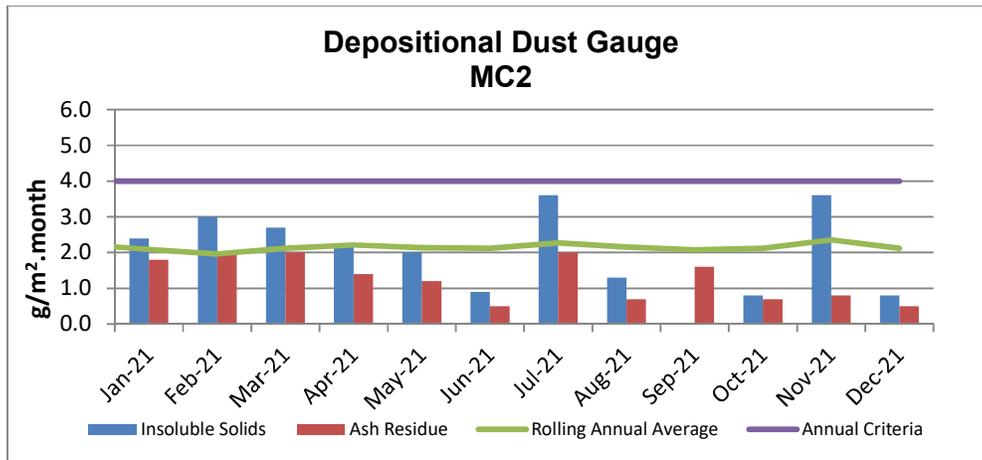
**Table 9 – Deposited Dust Gauge Results [g/m<sup>2</sup>/month]**

MONTH	MC1	MC2	MC3	MC4
October-21	2.3	0.8	1.0	0.3
November-21	12.9 <sup>c</sup>	3.6	1.6	0.6
December-21	6 <sup>c</sup>	0.8	2.1	1.1
<b>12 MONTH ROLLING AVERAGE</b>	<b>1.5</b>	<b>2.1</b>	<b>1.6</b>	<b>1.2</b>

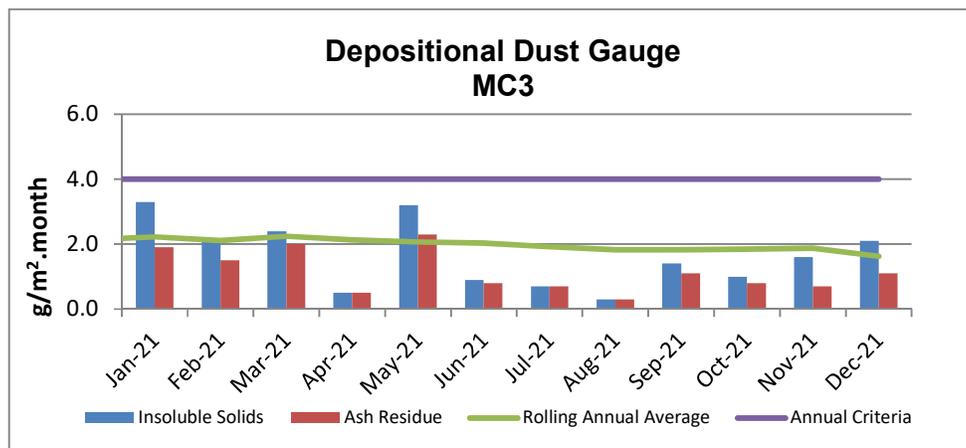
<sup>c</sup> samples contaminated by bird dropping, decomposed insects or vegetable matter.



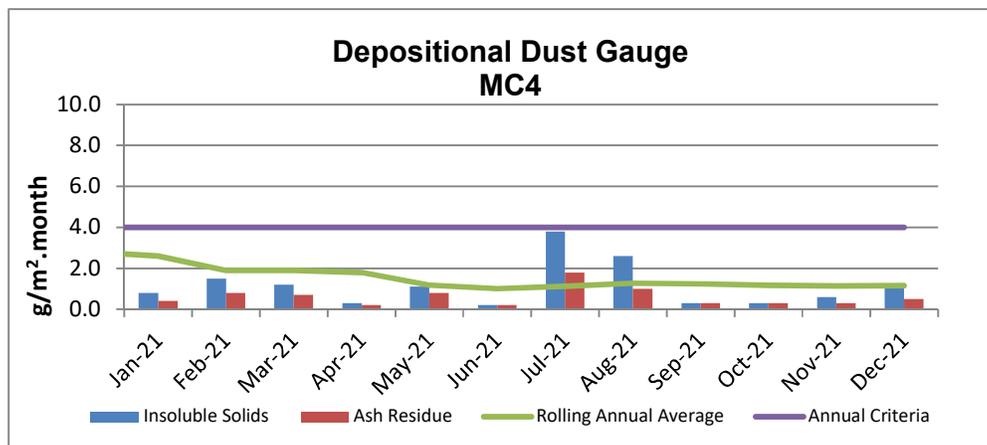
\* Blank cells indicate sample periods where the sample has been contaminated and excluded from the results tables due to contaminated material (insect larvae, bird droppings, vegetation etc.).



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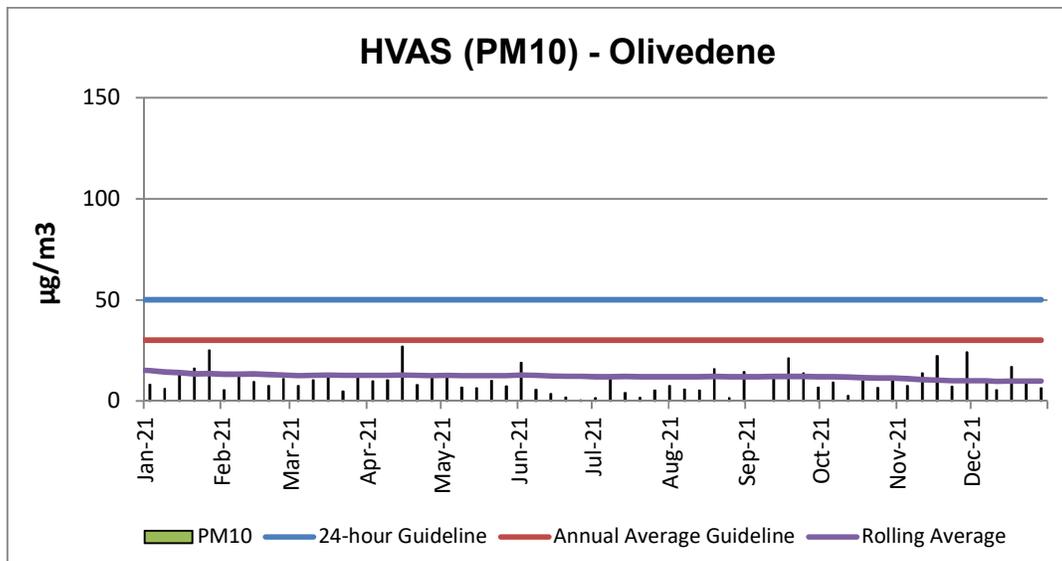


\* Blank cells indicate sample periods where the sample has been contaminated and excluded from the results tables due to contaminated material (insect larvae, bird droppings, vegetation etc.).

### B. High Volume Air Sampling (HVAS)

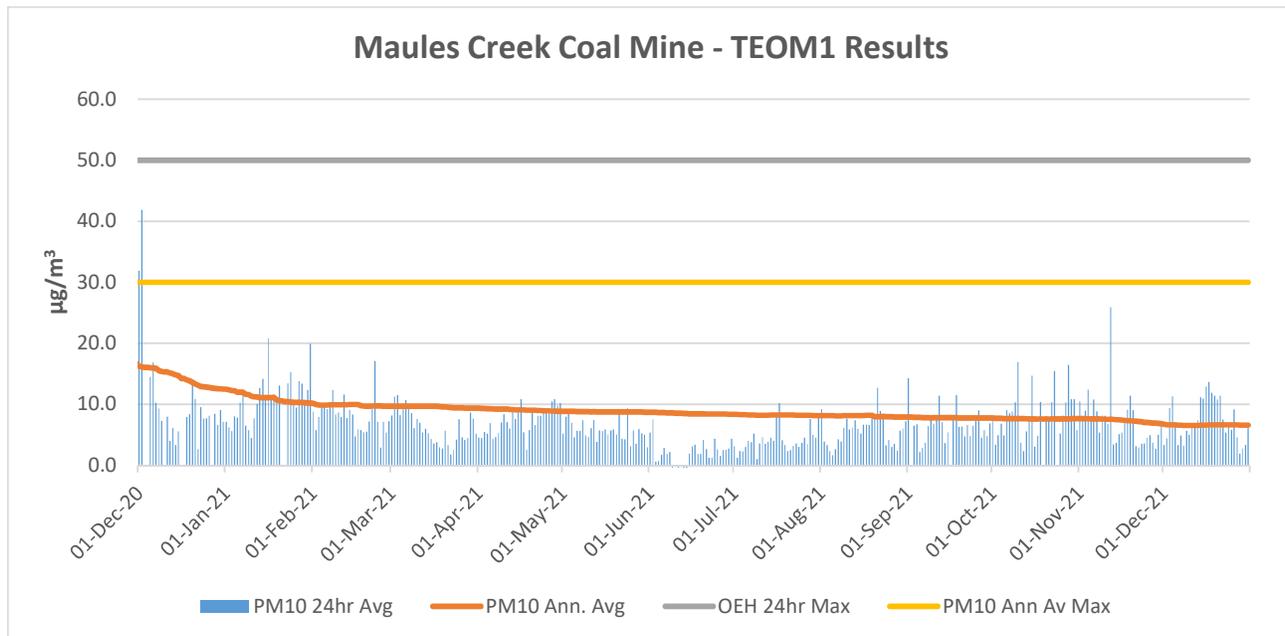
The HVAS monitor is located on the property 'Olivedene,' a mine owned property on Therribri Road. During past 12 months, there have been no exceedances of the 24-hour average of 50 µg/m<sup>3</sup>.

HVAS PM<sub>10</sub> 2021 Rolling Annual Average was **9.8 µg/m<sup>3</sup>**, which is below the Annual Average Guideline of 30 µg/m<sup>3</sup>.



### C. TEOM - PM10 Results

The annual rolling average for PM10 at the Maules Creek Coal TEOM was **6.6 µg/m<sup>3</sup>**, which is below the Project Approval annual average criteria of 30µg/m<sup>3</sup> as shown in the following figure. There have been no exceedances of the 24 hour average for Q4.



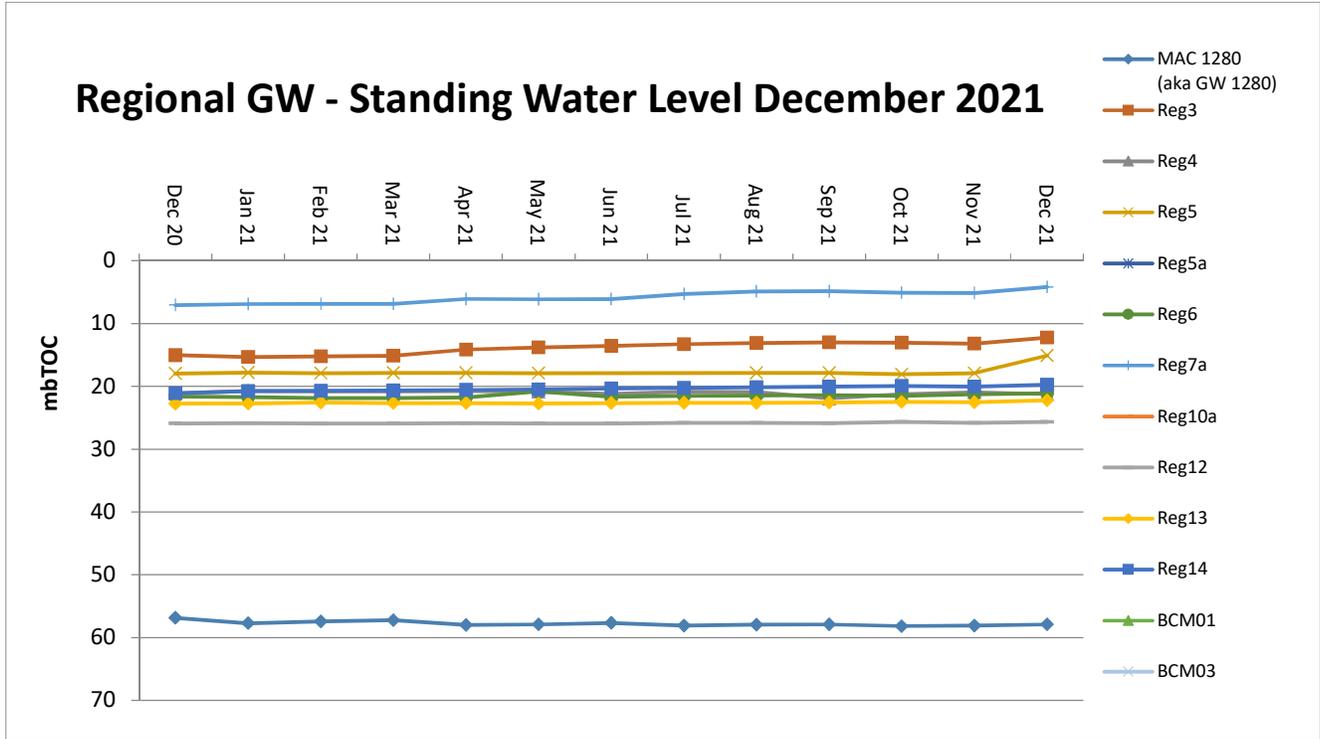
**Figure 1 - TEOM Result – Particulate Matter PM<sub>10</sub>µg/m<sup>3</sup>**

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

**Water Monitoring**

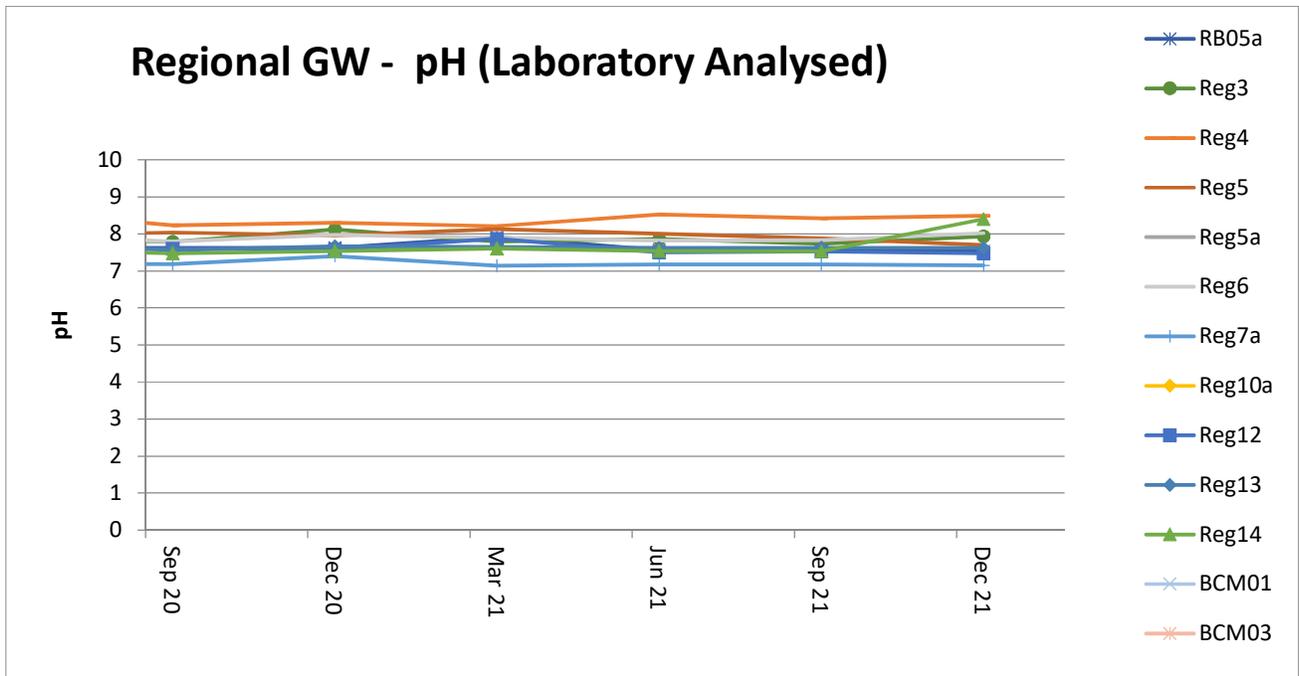
**A. Groundwater**

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.



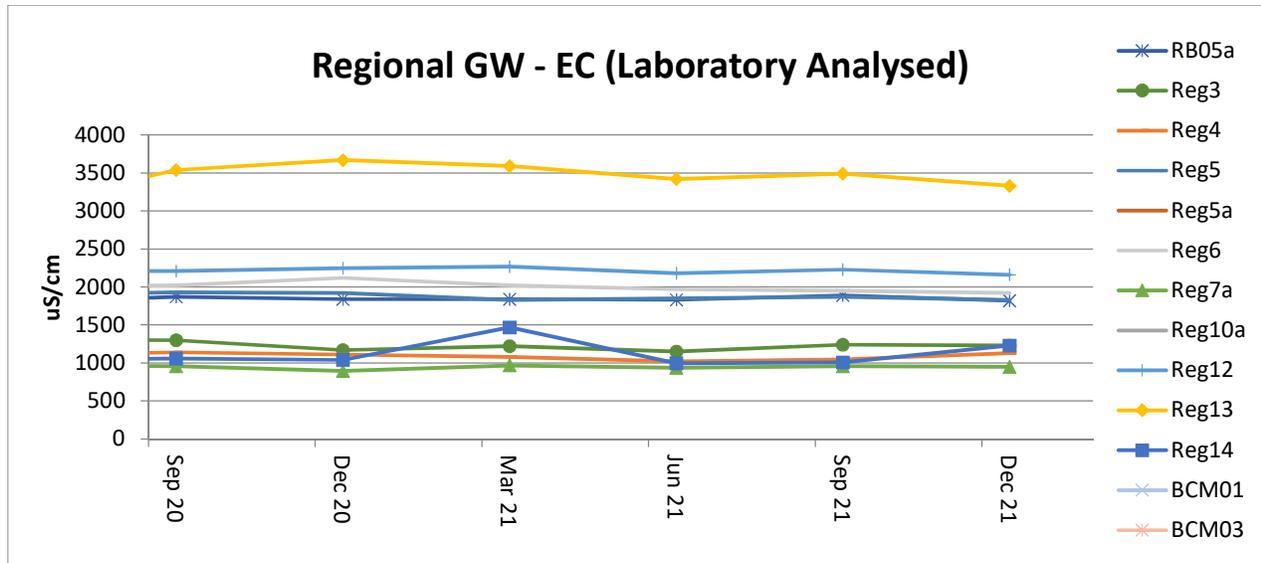
**Acidity / Alkalinity (pH)**

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.

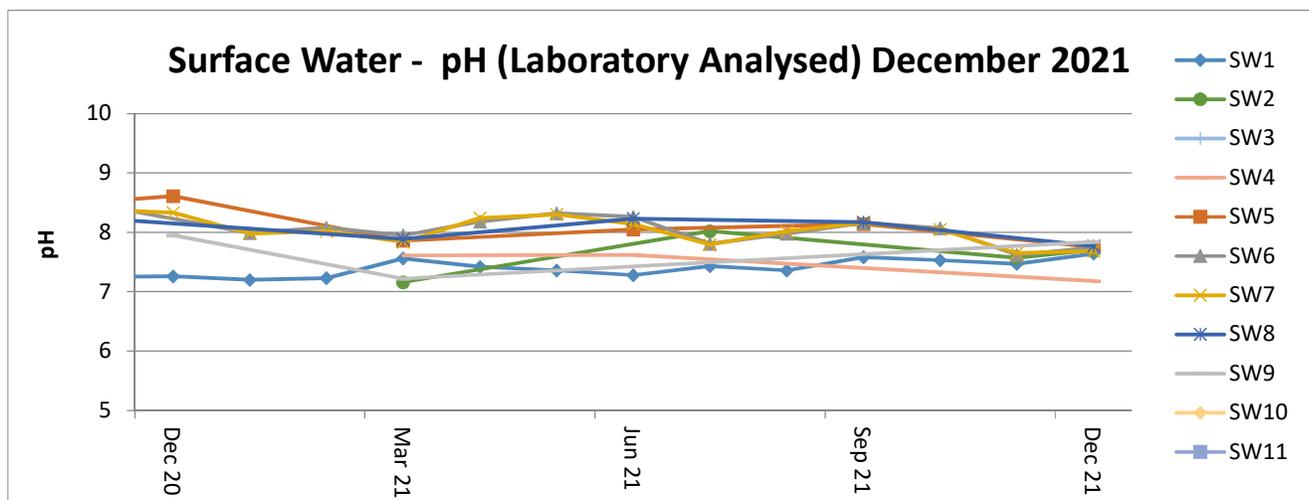


### B. Surface Water – Creeks and Rivers

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 **eight** sites were able to be sampled during Q4 2021.

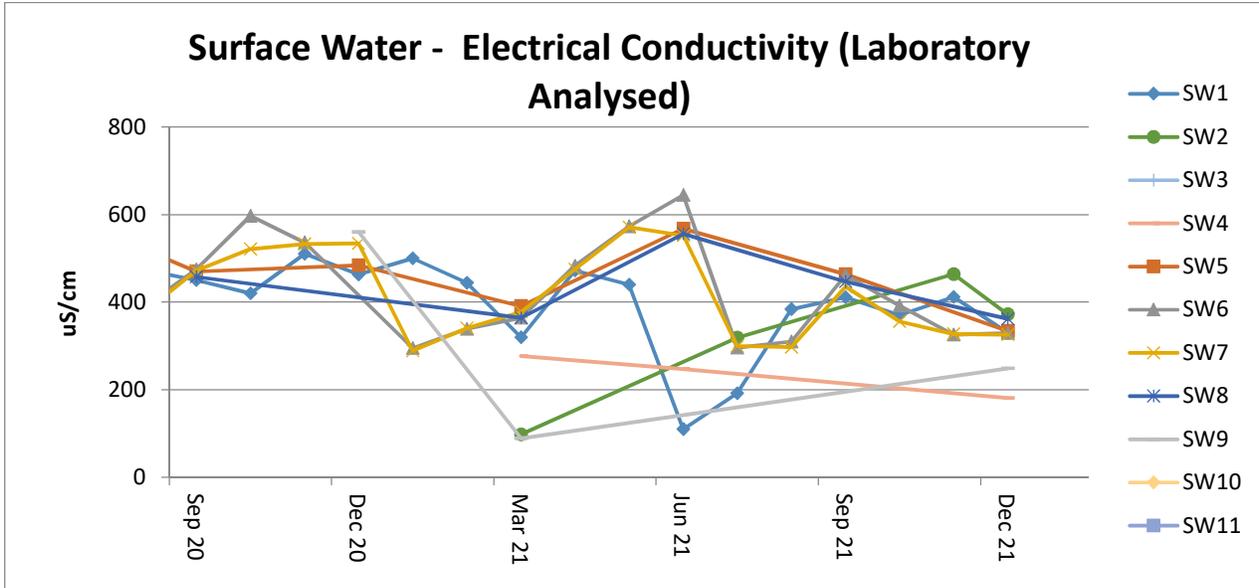
#### Acidity / Alkalinity (pH)

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



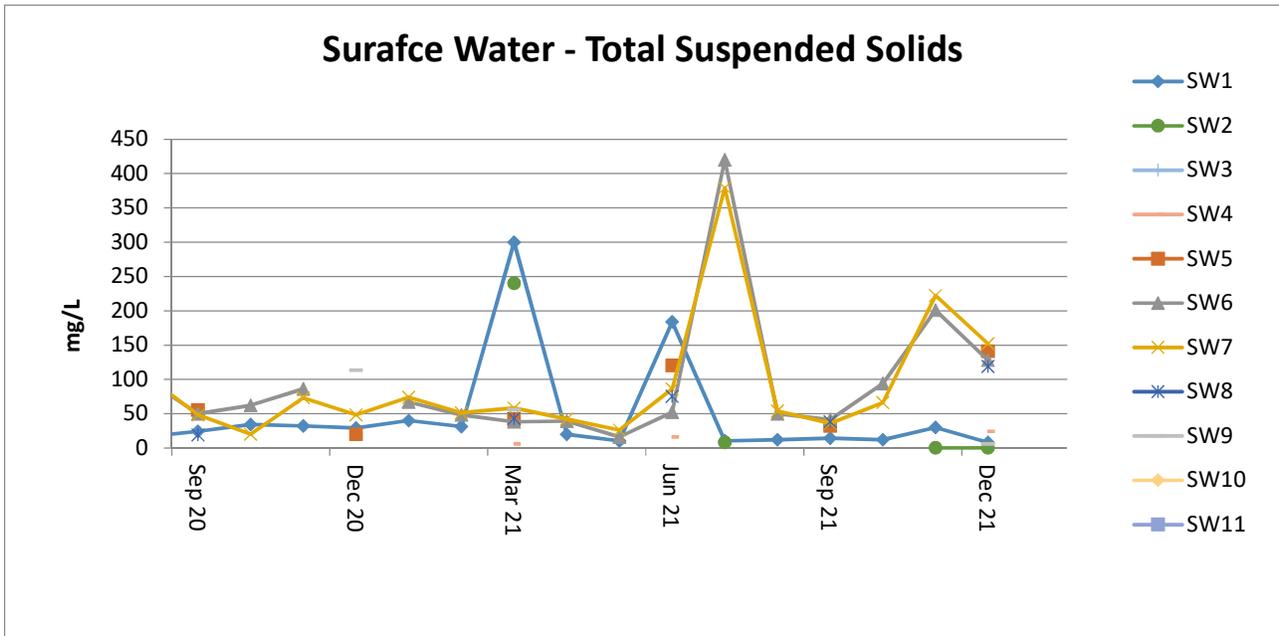
### Electrical Conductivity

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.



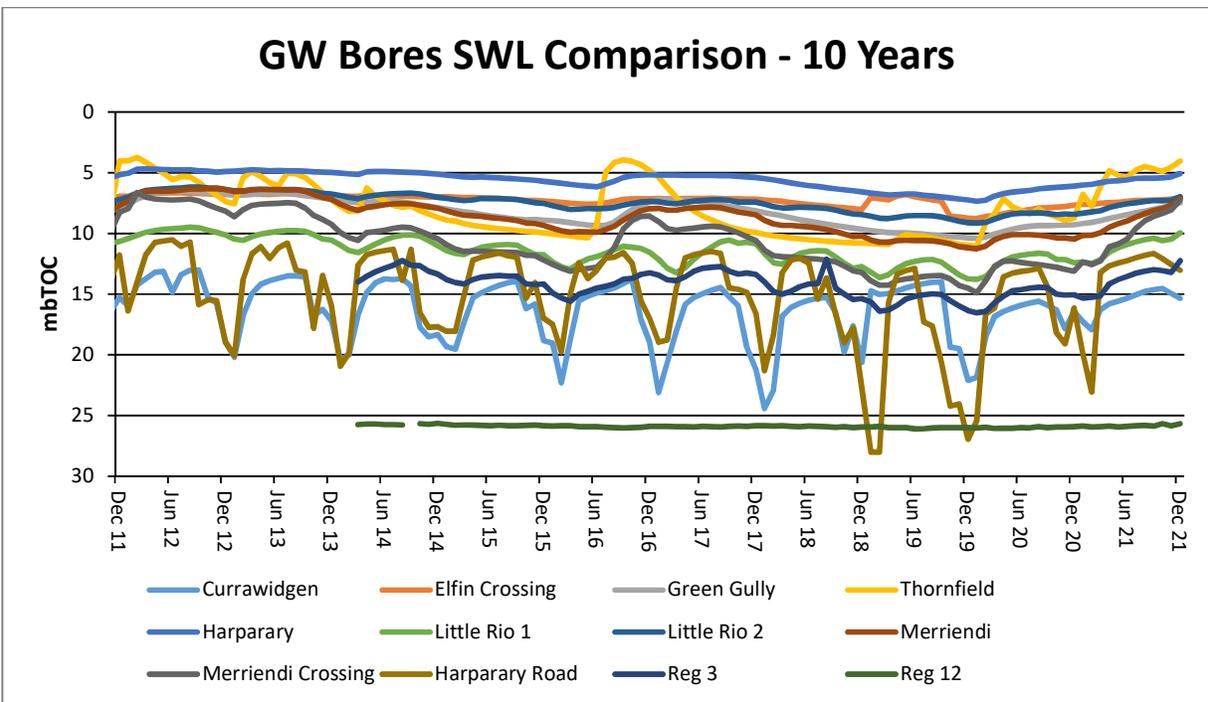
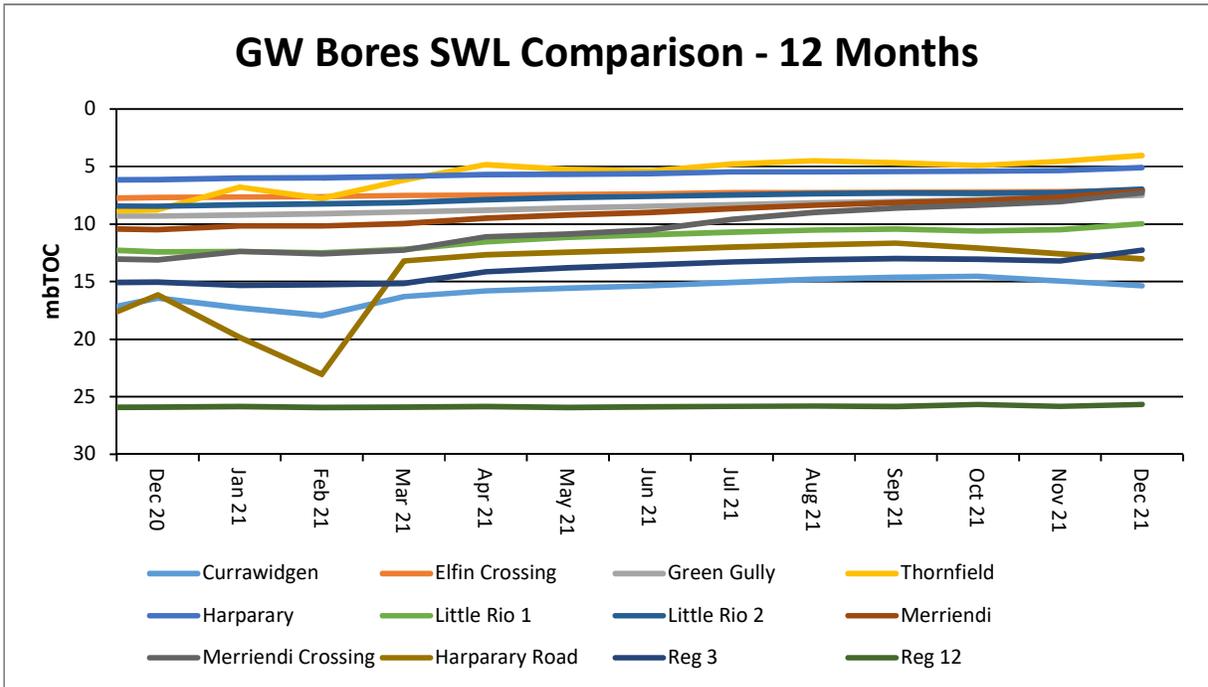
**Total Suspended Solids (TSS)**

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 Q3 results were elevated due to significant rainfall events, as demonstrated on the graph below TSS levels have since decreased



**Regional Groundwater monitoring**

Maules Creek Coal Mine monitors regional bores across the region.



### Rehabilitation

Progressive rehabilitation works are ongoing. 70,000 trees have been planted in the rehabilitation areas over the previous quarter.

### Feral Animal Management

Most recent routine Whitehaven Biodiversity Feral Animal Control program (December 2021) was constrained due to flooding, the results included:

- 3 out of total 10 pigs trapped were from the Maules Offset properties; and,
- 203 out of total 374 baits (1080) taken were from the Maules Offsets properties.

### Weed Control

- Targeted seasonal weed control is ongoing.

### Flooding

- Namoi River flooding inundated parts of the Kelso and Olivedene properties;

### Fencing Maintenance

- Post rainfall, integrity of fences have been inspected and maintenance to be undertaken.

### Community Complaints

- **Four** complaints were received during Q4 CY2021.

Date	Method	Category	Nature Of Complaint	MCCM Response
7/10/2021	Email	Community	Complaint received via email regarding Gunnedah based employees and contractors frequenting a Boggabri Hotel.	MCCM reviewed information on whom may have been visiting the Hotel and provided feedback to the Complainant.
14/10/2021	Email	Blast	Complaint received via the EPA in relation to a blast fired on the 7th October 2021.	MCCM reviewed data and provided to the EPA.
25/10/2021	Email	Blast	Complaint received from Local resident relating to vibration following a blast at MCCM.	MCC reviewed the monitoring data from a location in close proximity to complainant, this indicated compliance with blasting conditions. This information was provided to the resident. Information was also provided to the EPA as the complainant had included the EPA in correspondence.
29/11/2021	Phone Call	Community	Complaint received regarding inappropriate use back roads to Maules Creek Mine	MCC reviewed the complaint and found the roads in question were not being used by MCCM employees.

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# Maules Creek Coal Mine

CCC MEETING

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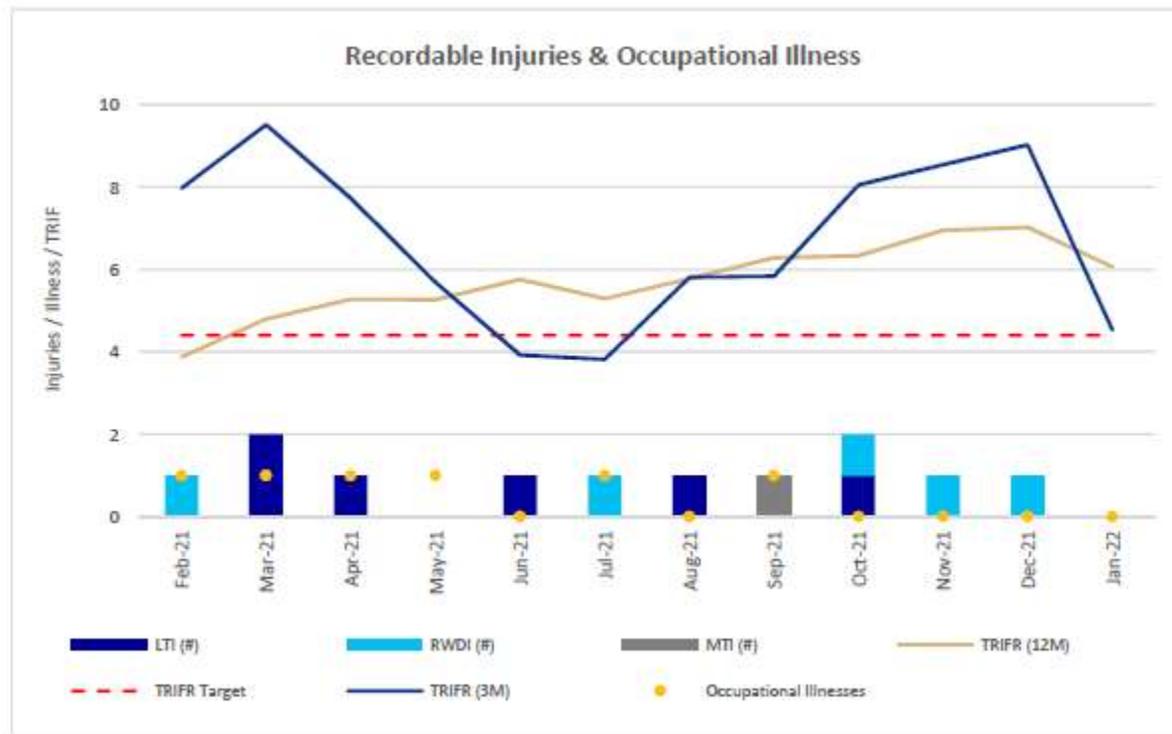
MAULES CREEK COAL MINE

FEBRUARY 2022



# Company Report & Overview of Activities

- FY22 target production ~ 12.1 – 12.5Mtpa ROM
- FY 22 Q1 delivered 2.9Mt ROM
- January 2022 TRIFR (Recordable injuries per million exposure hours) 6.1 (12MR)
- Nil Recordable injuries for the month of January



# Health and Safety

## COVID-19 Management

- Introduction of Rapid Antigen Testing for all MCC workers (5111 Rapid tests conducted at MCC during January).
- Continued monitoring of compliance with current COVID-19 requirements from NSW Government.
- COVID-19 Vaccination incentive remains open until 28<sup>th</sup> February.

## Continuous improvement Projects

- Health and Safety Improvement strategies:
  - Improvement of control of vehicle interaction and integration of AHS Projects.
  - ‘*Tough Enough*’ Mental Health campaign facilitated by *Rural Adversity Mental Health Program* at MCC.
- Supervisory focus on Critical Control Monitoring and PL4 Hazard Reporting.

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# Environmental Monitoring

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All data is summarised in detail in the Monitoring Report Supplied.



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# Environmental Monitoring

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## Noise Monitoring

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# Noise Monitoring quality management

- MCCM engaged an independent consultant to conduct at 6 monitoring locations (NM1 – NM6)
- MCC monitor LAeq (15minute), over day, evening and night time periods and LA1 (1minute) over night time periods.
- All monitoring locations were within EPL 20221 compliance limits and the EPA's Noise Policy for Industry compliance guidelines.

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# Environmental Monitoring

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Air Quality Monitoring



# Depositional Dust

- At the end of the annual reporting period the 12 monthly rolling annual average remained below the relevant Project Approval (PA 10\_0138) criteria of 4g/m<sup>2</sup>/month for the respective monitoring points.

MONTH	MC1	MC2	MC3	MC4
October	2.3	0.8	1.0	0.3
November	12.9 <sup>c</sup>	3.6	1.6	0.6
December	6 <sup>c</sup>	0.8	2.1	1.1
<b>12 MONTH ROLLING AVERAGE (Jan – Dec 2021)</b>	1.5	2.1	1.6	1.2

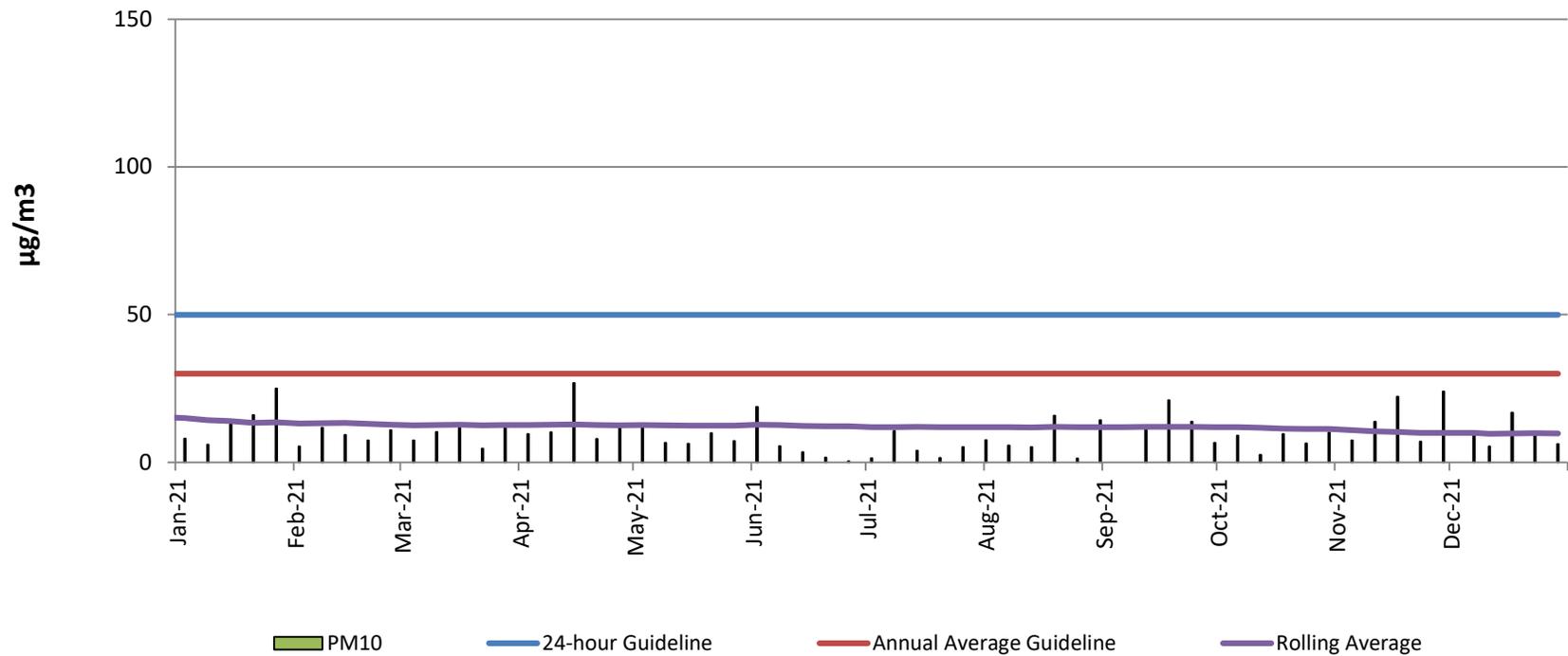
<sup>c</sup> samples contaminated by bird dropping, decomposed insects or vegetable matter.

# HVAS

- The HVAS monitor is located on ‘Olivedene’
- Data is publically available
- No exceedances recorded during the 24 hour average of  $50 \mu\text{g}/\text{m}^3$
- At the conclusion of 2021 the Rolling Annual Average was  **$9.8 \mu\text{g}/\text{m}^3$** , which is below the Annual Average Guideline of  $30 \mu\text{g}/\text{m}^3$ .

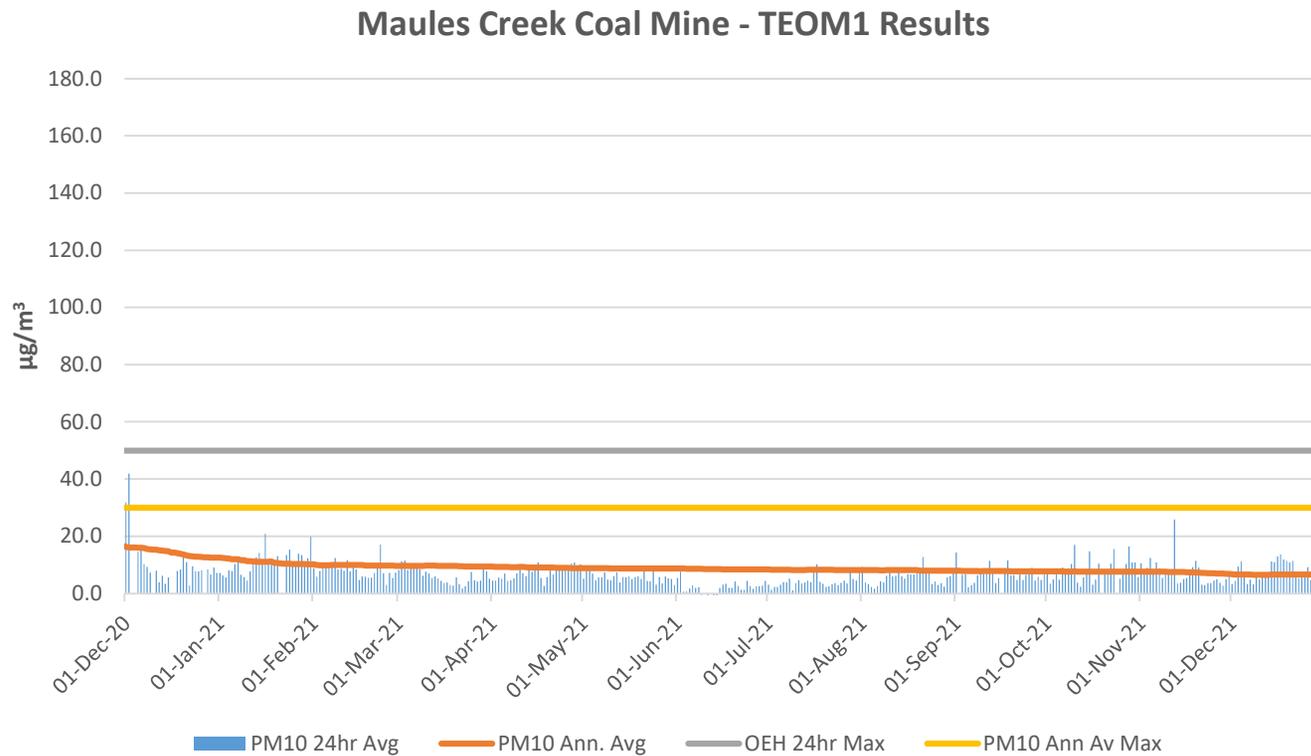
# HVAS

## HVAS (PM10) - Olivedene



# TEOM (PM10)

- Publically available results of TEOM1 available on the EPA website. Annual rolling average for TEOM 1 is 6.6  $\mu\text{g}/\text{m}^3$  at 31 December 2021 (criteria  $30\mu\text{g}/\text{m}^3$ ).



# Air Quality Monitoring January - December 2021

## Regional Air Quality PM10 Comparison

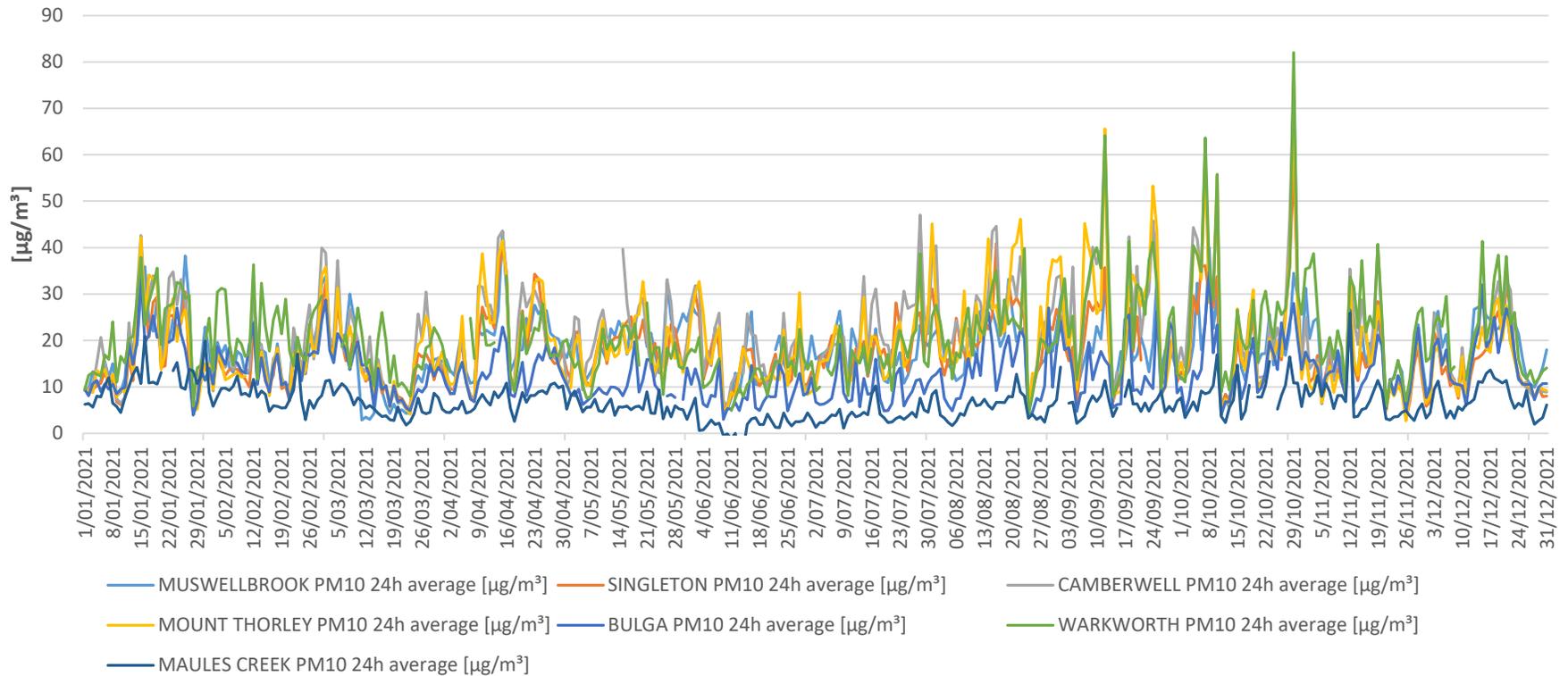


Table – Annual reporting data from 1 January 2021 – 31 December 2021

	TAMWORTH PM10	MUSWELLBRO OK PM10	SINGLETON PM10	CAMBERWELL PM10	MOUNT THORLEY PM10	BULGA PM10	WARKWORTH PM10	MAULES CREEK PM10
Annual Average	13	18	17	21	19	13	21	7
Max 24hr Ave	36	44	58	76	71	35	82	26

# Mitigation measures

- Ongoing dust suppressant application across the operation.
- i.e. water carts, stockpile sprays and progressive overburden emplacement and bulk shaping on the northern dump, with top soil spreading and tree planting in progress.

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# Environmental Monitoring

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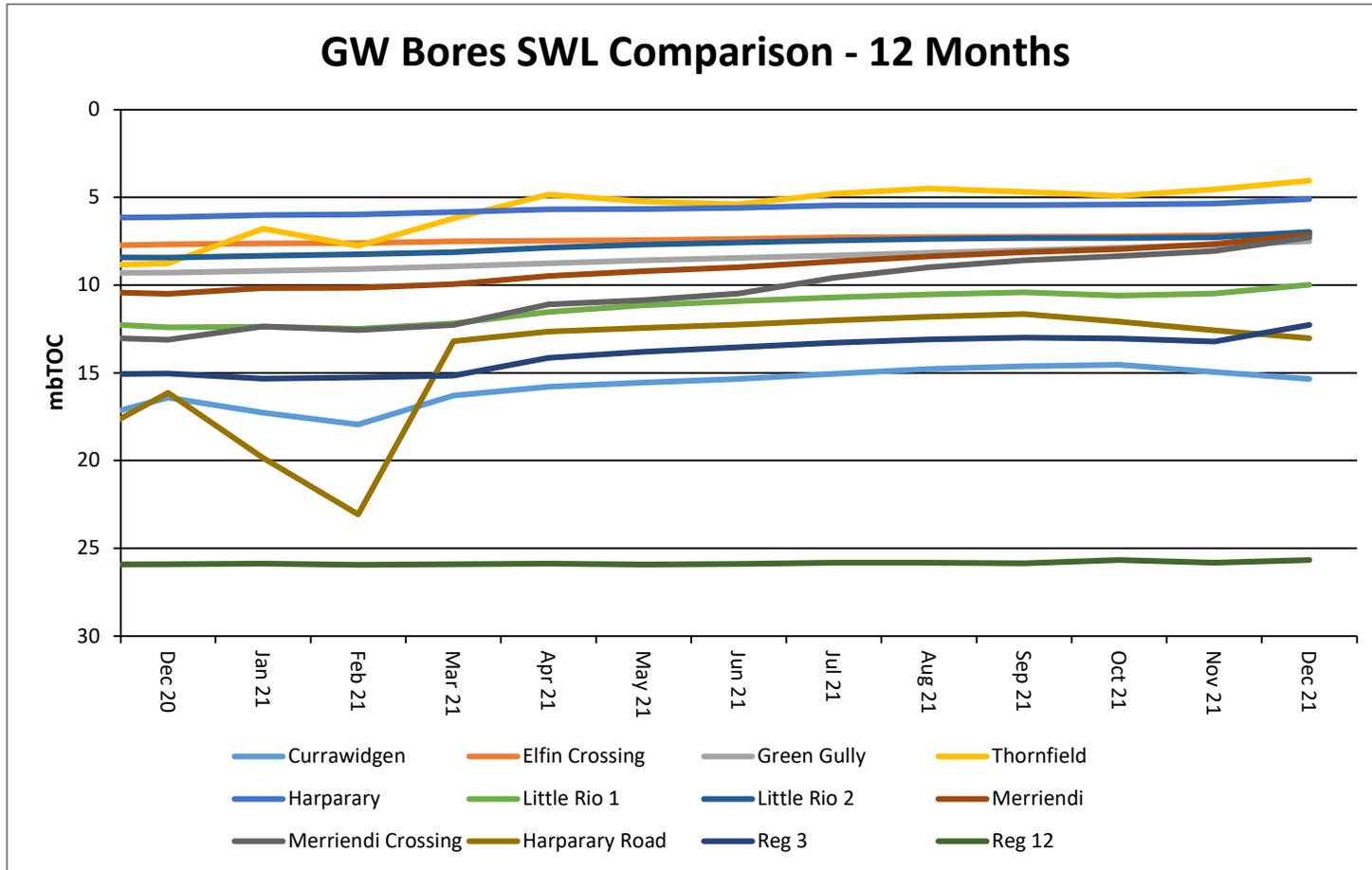
Groundwater



# Monitoring Locations



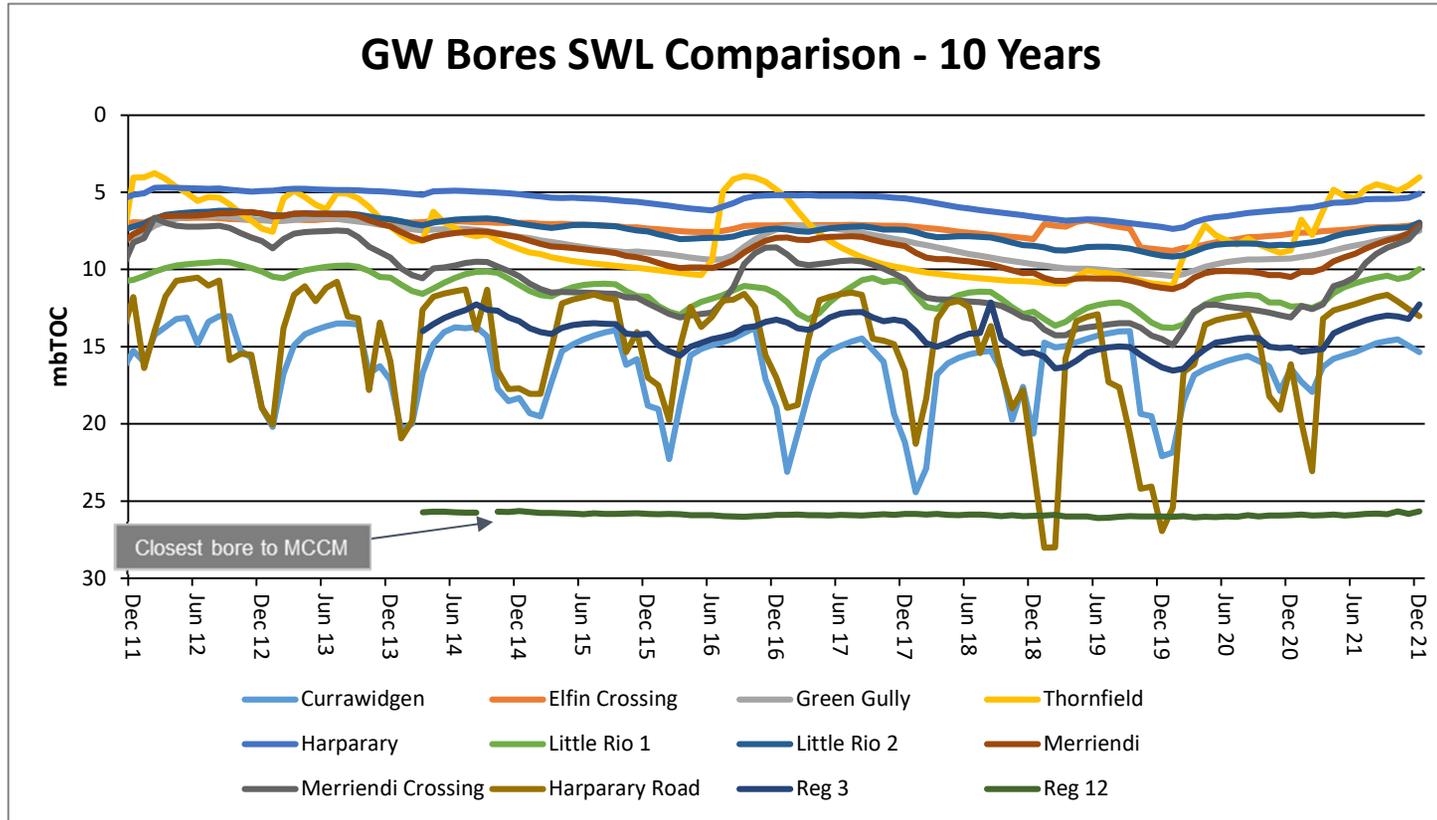
# Groundwater levels



\* Note Reg12 and Reg3 both within Boggabri Volcanics

Source: NSW DPI- Water & MCCM monitoring data

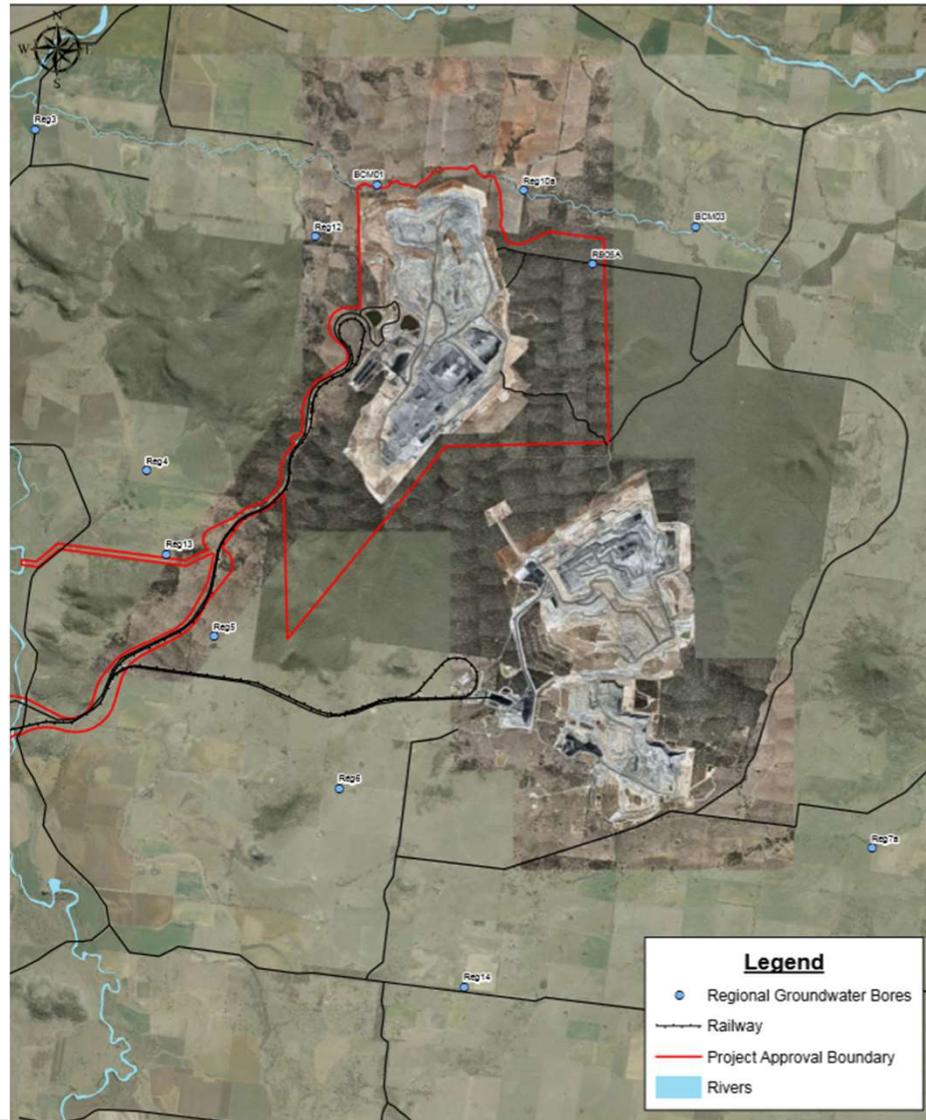
# Groundwater levels



\* Note Reg12 and Reg3 both within Boggabri Volcanics

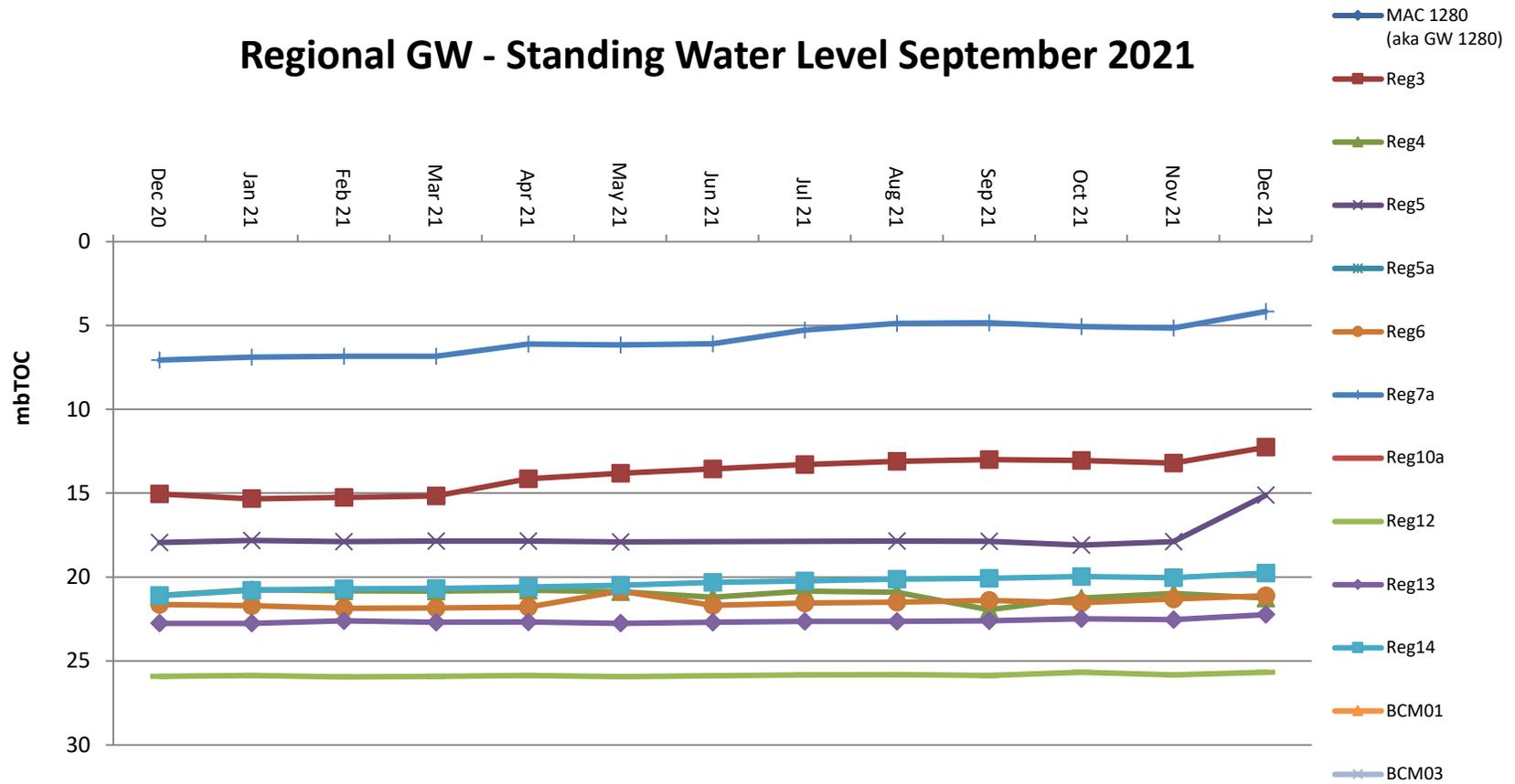
Source: NSW DPI- Water & MCCM monitoring data

# Standing water levels



# Standing water levels

## Regional GW - Standing Water Level September 2021



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# Environmental Monitoring

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Biodiversity



# Biodiversity Management

## Feral Animal Management

- Most recent routine Whitehaven Biodiversity Feral Animal Control program (December 2021) was constrained due to flooding, the results included:
  - 3 out of total 10 pigs trapped were from the Maules Offset properties
  - 203 out of total 374 baits (1080) taken were from the Maules Offsets properties

## Flooding

- Namoi River flooding inundated parts of the Kelso and Olivedene properties;

## Fencing Maintenance

- Post rainfall, integrity of fences have been inspected and maintenance to be undertaken.

# Biodiversity Management



Kelso Offset property 1<sup>st</sup> December 2021



Kelso Offset property 25<sup>th</sup> January 2022

# Biodiversity Management

## Upcoming works:

- Quarterly Pest Animal Monitoring and Control Program in March 2022.
- Continued seasonal Weed Control Programs.
- Complete Annual Fauna Monitoring.
- Quarterly Threatened Flora Inspections and Programs.
- Plan and prepare for Annual Ecological Burn Program.
- Continue Heritage & Ecology Due Diligence Assessments.
- Continued Fencing/Maintenance works and Waste Removal.

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# Community

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# Community

- Feedback and Complaints for all Whitehaven sites can be made to:

**1800 WHAVEN (1800 942836)**

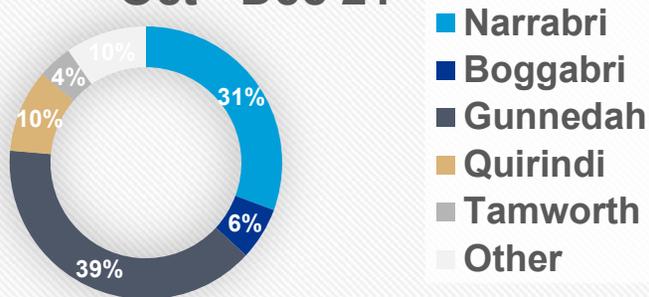
- Each Whitehaven site has a site specific feedback email address. Maules Creek email address is: [MaulesCreekCoal@whitehavencoal.com.au](mailto:MaulesCreekCoal@whitehavencoal.com.au)
- Complaints details: 4 complaints received during Q4

Date	Method	Category	Nature Of Complaint	MCCM Response
7/10/2021	Email	Community	Complaint received via email regarding Gunnedah based employees and contractors frequenting a Boggabri Hotel.	MCCM reviewed information on whom may have been visiting the Hotel and provided feedback to the Complainant.
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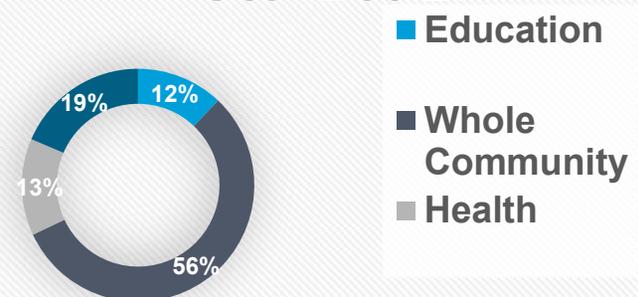
# Community

- 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 Oct - Dec 2021 over \$92,900. Highlights - >\$9,000 Gunnedah Week of Speed Committee, \$7,500 to Winanga-Li, \$6,000 to United Hospital Auxiliaries of NSW (Quirindi), \$5,000 to Narrabri Meals on Wheels, \$3,000 to the Pink up Namoi campaign,

### Location Of Donation Oct - Dec 21



### Donation Category Oct - Dec 21



# MCC provides funding to Community excluding Royalties, Taxes and Wages/Salaries etc. via at least 3 avenues.

## Voluntary Planning Agreement (VPA) with Narrabri Shire Council - May 2014

NSC manages and distributes these funds.

Contribution Schedule

AMOUNT	TIMELINE FOR PAYMENT	DESCRIPTION
\$6,000,000	\$3,000,000 3 months after receipt of all necessary approvals to commence construction of the mine. \$1,500,000 12 months after the first payment \$1,500,000 24 months after the first payment  *Note: Maules Creek Coal will commit funds out of the first \$3,000,000 to the upgrade of Therribri Road.	Funds to be utilised on the upgrade of infrastructure and road including Therribri Road and Tarrorio Bridge.
\$5,000,000	\$1,000,000 3 months after receipt of all necessary approvals to commence construction of the mine. Each 12 months thereafter \$1,000,000	Funds to be utilised on the upgrade of the Narrabri Airport.
\$800,000	To be distributed in consultation with Narrabri Shire Council (NSC) and the Boggabri Community. The funds will be where possible equally distributed over a 3 year period commencing 3 months after receipt of all necessary approvals to commence construction of the mine.	Funds to be utilised on various projects within the township of Boggabri and its surrounds.
\$275,000	To be distributed in consultation with Narrabri Shire Council (NSC) and the Maules Creek Community. The funds will be where possible equally distributed over a 3 year period commencing 3 months after receipt of all necessary approvals to commence construction of the mine.	Funds to be contributed to the Maules Creek Community.
\$1,250,000	\$250,000 3 months after receipt of all necessary approvals to commence construction of the mine. \$500,000 12 Months after the first payment \$500,000 24 Months after the first payment	Funds to be utilised on CBD upgrades in the Narrabri Shire

AMOUNT	TIMELINE FOR PAYMENT	DESCRIPTION
\$100,000	At Aston's discretion.	Funds to be held in trust for "Environment" projects and to be administered by the Community Consultative Committee (CCC)  The aim is to set up a "pool of funds" with all current and future mines being compelled to contribute \$100,000 as a once only upfront fee to commence the fund.  The Council through gaining a Consumer Price Index (CPI) increase on the tonnes produced will allocate 1.5% of the increase each and every year to supplement the fund.  The Council and MCC will work through the CCC to administer the funds with the criteria to support a grant application to be completed by the 30th June 2013. The first round of applications will be called in the financial year 2013/14.
\$0.075 per saleable tonne + CPI		The cents per saleable tonne to mirror the calculation per saleable tonne paid to the NSW State Government and payable monthly.  The cents per saleable tonne to commence from

AMOUNT	TIMELINE FOR PAYMENT	DESCRIPTION
		the start of production and to be utilised on infrastructure projects (including environmental) at Council's discretion.  The Consumer Price Index is to be calculated as follows:  Price Indexes published by the Australian Bureau of Statistics (ABS)  CPI to be based upon the weighted average of eight capital cities for the previous 12 months and to commence from the start of production.  The first review to be undertaken and applied in the first instance and based on the prior 12 months CPI.

## **WHC/MCC funds provided to Community**

**Whitehaven Community Investment Committee \$200,000 per year**

**Community Representatives review and determine allocation of funding opportunities after applications are received.**

**Representatives are from the 3 local Councils where WHC operate. Narrabri, Gunnedah and Liverpool Plains Shire Councils. These include Indigenous, Council and Community Representatives and are Chaired by a Whitehaven Staff member.**

**The Committee meets quarterly to allocate up to \$50,000.**

**Applications have just closed (31 Jan 2022) for the next round of funding opportunities.**

**Applications will be reviewed in late Feb 2022 with Applicants notified early March.**

# WHC/MCC funds provided to Community

## Whitehaven ongoing funding programs

There are other funding opportunities where WHC has partnerships with Community Groups and provides support on an annual basis e.g. Westpac Rescue Helicopter Service, Country Education Foundation, Clontarf

These are funded separately to the Community Investment Committee committed \$200,000 budget

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# AHS Project Works

The AHS system operated through September to November. We encountered significant challenges with the upgraded obstacle detection system, proving too sensitive to perform productively in an operational environment.

Hitachi have developed new logic to allow operation in a mining environment, testing have yielded a 95% lower false positive stopping rate.

(False Positive – Stopping for an environment where the truck should be able to travel)

**The AHS project will recommence operation on the 08<sup>th</sup> February with a new obstacle detection system and a number of other Technical Updates**

**Old issue-** Following a hardware or software fault onboard the autonomous truck, an operator used to board the truck and remove it off the haul road and place it in a specific location to mode change it back to autonomous again

**New Features-** This whole process now takes place in-situ via a remote control, enabling the truck to return back to work in a significantly shorter timeframe.



**Old issue-** The truck exchange (time it takes for one truck to leave an excavator till the next one begins loading used to be 65 seconds, where a manned truck can perform this task in less than 40. Ultimately capping excavator productivity with the autonomous trucks

**New Features-** Significant functional improvements (speeds, acceleration, trajectory have been made to decrease the truck exchange to approximately 50 seconds. Increasing potential excavator peak output by 8 percent.



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# Maules Creek Coal Mine Approvals Update



# Modification 9 – BOS and ETL

The Modification would comprise the following:

- modification of the MCCM biodiversity offset strategy to align the offset areas required under PA 10\_0138 with the offset areas proposed 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 coal mining and processing rate, mining method, mine life or rail movements are proposed as part of the Modification.
- It is anticipated that the Modification application and Modification Report will be lodged in Q1 CY22 and subsequently placed on public exhibition for comment.



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# Maules Creek CCC briefing - Water



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# Enforceable Undertaking update

- WMP submitted in November 2021, awaiting feedback from the regulators
- Construction of the 4 highwall dams due for completion in February
- Installation of stream monitoring equipment in March
- Aiming for operation of the clean water system by early March, depending on rain

Construction of High Wall Dam 10



# Thank you

[www.whitehavencoal.com.au](http://www.whitehavencoal.com.au)



WHITEHAVEN COAL