

Notes: Notes of the 34th Meeting of the Maules Creek Coal Community Consultative Committee
Held via Microsoft Teams

Wednesday 8 September 2021

Members Present: Cr Robert Kneale (RK) – Narrabri Shire Council, Darren Swain (DS) – WHC, Emma Bulkeley (EB) – WHC, Jack Warnock (JW) – Community Representative, Libby Laird (LL) – Maules Creek Community Representative, Robyn Grover (RG) – Community Representative, Ross Wilson (RW) – WHC, Simone Moodie (SMo) – Community Aboriginal Representative

Apologies: David Paull (DP) – Sustainable Living Armidale (SLA), Lyndell Crowley (LC) – Community Representative, Steve Eather (SE) – Community Representative

Guest: Huw Morgan (HM) – WHC

Independent Chair: David Ross (DR)

Independent Secretary: Debbie Corlet (DC)

Agenda Items	Who to Present
1. Apologies	DR
2. Declaration of pecuniary or other interests	DR
3. Confirmation of the Minutes of the previous meeting – Wednesday 12 May 2021	DR
4. Business arising from the previous minutes – Action List Distributed	DR
5. Company Report and Overview of Mine	WHC
6. Environmental monitoring	
7. General Business	DR
8. Next Meeting – Wednesday 27 October 2021	ALL

Agenda Item	Discussion	Action/By Whom
1.	Welcome and Apologies – David Paull, Lyndell Crowley and Steve Eather. DR welcomed everyone to the 3 rd CCC meeting of the year. Huw Morgan from WHC is here today and will be involved in the Water Management presentation.	
2.	Declaration of pecuniary or other interests – DR is paid a fee as chair as is DC for typing the minutes.	
3.	Confirmation of the notes of the previous meeting (12 May 2021) – The CCC endorsed the notes from the May site visit as an acceptable record of what was discussed.	
4.	Business Arising from the previous minutes DR – Thanks to DS and EB for providing actions that came out of the last meeting. All actions are completed.	
5.	<p>Company Reports and Overview of Activities</p> <p>Company Report & Overview of Activities – FY21 production – 12.66 Mtpa ROM (Run of Mine) coal. FY22 target production – 12 Mtpa ROM. June 2021 TRIFR (Recordable injuries per million exposure hours) 5.86.</p> <p>Health and Safety – COVID-19 Management – Continued monitoring of compliance with current COVID-19 preventative measures. Business continuation plan in light of COVID border restrictions. Continuous improvement projects include monitoring progress with Health and Safety Improvement Plan, improvement of control of vehicle interaction and integration of AHS projects. WHC has a program in place to encourage people to get vaccinated.</p> <p>Employment – Continued focus on local, indigenous, and female employment with ongoing training programs undertaken. 524 MCC people are employed on site. 11% of the MCC workforce are women. Indigenous Mentoring Program – aimed at improving job satisfaction and attendance.</p> <p>JW – The number of people employed on site seems to be lower than previously reported? EB – This is solely at Maules Creek and employed by WHC – so this number doesn’t include contractors. The numbers have remained steady. Contractors are on top of this number – so inclusive would be around 1,000 people.</p> <p>Air Quality Management – Publicly available results of TEOM1 available on the EPA website. Annual rolling average for TEOM 1 is 8.4 µg/m³ at 30 June 2021 (criteria 30 µg /m³). Ongoing dust suppressant application across the operation. Progressive overburden emplacement and bulk shaping on the northern dump, with top soil spreading and tree planting in progress. EB observed that since the Site Tour back in May 2021, 60,000 trees have been planted and by the end of the year hoping for 100,000 trees planted.</p> <p>TEOM PM10 Results – Only 1 that was above 50 µg/m³ which was back in August 2020 when a dust storm come through. It’s been a pretty wet year and has been declining quite significantly.</p>	

Groundwater Monitoring – Upward trend or remained steady. Graph “Standing Water Levels – Regional GW – Standing water level June 2021” upside down. To be flipped for the next meeting.

Biodiversity Management –

Feral Animal Management

- June 2021 results included: 101 out of total 158 pigs trapped were from the Maules Offset properties. 455 out of total 771 baits (1080) taken were from the Maules Offsets properties.

Weed Control

- Targeted seasonal control for Patterson Curse and other broad leaf weeds.

Revegetation, Threatened Flora and Habitat Augmentation

- Annual tree planting program ongoing. Quarterly inspections in May undertaken for Tylophora and Pomaderris sites. Planning to plant additional 85 Pomaderris seedlings in August. Maintenance of threatened flora site fences. Installed 172 Nest Boxes in June for Gliders, Parrots & microbats.

Heritage Management

- Annual site inspection and maintenance of heritage site fences.

Upcoming Works

- Quarterly pest animal monitoring and control program in Aug-Oct 2021. Commence Biodiversity Tree Planting Program 2021. Continued seasonal weed control programs and maintenance programs including fencing repairs. Commence spring flora 2021 monitoring.

Community – Three complaints received including a blast, noise and lighting and another noise complaint. Whitehaven continues to support the local community with donations and sponsorships. Donations for April to June 2021 was over \$92,000 to, for example, Clontarf Foundation and Boggabri Nurruby Early Learning Facility.

AHS Project Works – The AHS System has undergone enormous change in the past quarter. Hitachi have implemented Release 2 of their autonomous project, including major software and hardware changes including new obstacle detection systems. WHC expect increased safety and productivity results.

Approvals Update

PA Modification 7 – Landform –24 August 2021 MOD7 was determined favourably by DPIE. You can find details [here](#). Changes are as follows:

ACTION 1 – Flip graph

- **Waste rock management** – extend the footprint of the Northern Emplacement within an area of Coal Lease (CL) 375 that is currently approved for disturbance. Increase the average height of a section of the approved and constructed Northern Emplacement to 439 mAHD and incorporate gently undulating surfaces.
- **Water management** – to accommodate the Northern Emplacement footprint extension, MCCM will relocate water management infrastructure within an area of CL 375 that is currently approved for disturbance.

Modification 8 – Tyre / Mobile Crushing – in conjunction with disposal of tyres in the pit, MCCM is proposing mobile crushing within the pit. Proposing an in-pit crusher and a rock crusher, anticipating 150,000 to 200,000 tonnes per month of coal from that mobile crushing plant, to be based in-pit.

EB – What's important with this is that it does not propose to change the approved coal extraction rate, or the product coal transport rate nor the project boundary or the life of mine. It is simply to help move coal faster through the prep plant with utilising bypass coal. A second crusher will be used to crush waste rock, this is positive for us utilising rock that we would normally have disposed of. Also means that site is not importing rock from off site. It means there will be less trucks on the roads coming into site.

EB – I also received an email today about another modification which is MOD9. I'm not big on the details on this one. This modification proposes to align the state Project Approval with the variations that we received to the Commonwealth EPBC approval. From what I can gather, it's going to be administrative in nature. When we get more details on it, we will provide those to the CCC at the next meeting.

DR – for the benefit of members – what's the where to from here with MOD8?

EB – So MOD8 will be submitted to the Department of Planning in the next couple of weeks.

LL – So, I'd just like WHC to explain to us what was the outcome of the tyre burial situation and what was the compliance action from the EPA and DPIE to you over burying tyres without approval for a substantial period of time?

EB – Maules Creek didn't bury tyres for substantial amount of time. There was 1 burial of tyres back in 2018 – that was the findings from the EPA, and I believe that we were issued with an official warning by the EPA.

LL – How many tyres were buried in 2018 and where were they buried?

EB – Sorry, I don't know. There are different sizes though, depending on what type of equipment they have come off. I'll be able to give you a number of tyres.

LL – Was there any compliance response from the Department of Planning?

EB – No there hasn't been.

DR – Welcome to Huw who is here to present to us.

HM – I'm the Group Manager for Water and Property for WHC. I support all the WHC coal mines with water management and also responsible for managing all the properties WHC owns / leases out. I wanted to go through the

ACTION 2 –
Biodiversity
Modification Update

ACTION 3 – How
many tyres were
buried in 2018 and
how many tonnes?

ACTION 4 – Where
were the tyres
buried

recent court case that Maules Creek has gone through. Now I can share with you what has happened to date and what will happen moving forward.

HW - Maules Creek pleaded guilty to the unlawful capture of rainfall and runoff into several highwall dams, sediment dams and the mine pit due to deficiencies in the water management system. The unlawful capture was 1,000 ML from the Maules Creek water source which was the unregulated water source and the only water access licence for this water source is the 30 ML WAL which Maules Creek owns. The capture occurred over three years which was 665 ML in 2016/17, 176 ML in 2017/18 and 159 ML in 2018/19. This is what we pleaded guilty to, was this take.

HW - It's not over yet as we haven't had judgement, but we've entered into an Enforceable Undertaking (EU) with the NRAR (Natural Resources Access Regulator) to rectify the deficiencies. One of the big things that came out of the course case was an NRAR expert witness identified several significant and unlawful creek diversions and irrigation works on Back Creek located on land Maules Creek purchased recently. This infrastructure has been in place since prior to 2011 and prior to Maules Creek ownership and are not associated with the mining operation at all, but they are land that Maules Creek now owns. NRAR has subsequently started to investigate this, and decommission them, with us. We were not aware that this was occurring. It was determined that this infrastructure was unlawful and the NRAR expert determined that the diversions were intercepted flows in Back Creek which then prevented any impacts from the mine occurring further downstream, i.e., no impacts to Maules Creek or the Namoi River.

We've already done a significant amount of work out there to decommission a lot of the infrastructure that allowed harvesting of water out of Back Creek and we're going to continue working with them to decommission the irrigation infrastructure too as NRAR said it is not lawful and therefore it has to go.

HM – Summary of the key points of the Enforceable Undertaking – so that includes construction of the 4 new highwall dams which are currently under construction. There's also the western clean water diversion dam which was already built. Emma briefly mentioned that the pipeline from that diversion is going to be moved as part of the landform Mod. So, all that we'll be doing is moving the pipeline further to the west. We'll also be decommissioning sediment dam 7 and MC10 which are located on the mine entrance road. So, dam 7 was built prior to the mine, however we are now going to decommission it and return the water course to its natural state. We're installing several monitoring stations along Back Creek for stream flows, soil moisture and groundwater.

We're also getting our monitoring program reviewed by one of our experts to determine whether there's further improvements we can make. Those will all be documented in the Water Management Plan. As of mid-2022, we will be reporting quarterly on the performance of the Clean Water Management system via our website.

LL – The infrastructure on the farm that you purchased. I'm trying to work out if this line of installation of new monitoring stations on Back Creek for stream flow is something that has come out of the court case. My understanding of the court case was the data from the monitoring stations along Back Creek - the inadequacy of the data as claimed by WHC was so poor or so contaminated that it made it difficult for NRAR to actually construct a conceptual model in order

to ascertain the actual volume of water that was taken. That's been a very, very long-term inadequacy of monitoring. I think it calls into question monitoring generally around your mine site or all mine site.

LL – I remember when AGE Consulting came, and we made the point that the monitoring data around Back Creek had been drilled to 10 metres and it was dry, and we asked why didn't you keep drilling? They said that they weren't asked to. It turns out that when we asked that question way back then, it was very relevant because it's become a key part of the defence for this case. I guess, it's disappointing because we raised that issue quite a long time ago and that was the response and that was discussed when your AGE modelling people came and gave us a presentation. I found it interesting that an enforceable undertaking was seen as a willingness to make good. I argue that it's a long time coming – if you have to wait until you are in court with an enforceable undertaking, that you've signed of a few days before court went in to say that you were always willing to fix a problem that has always been there since the inception.

HM – As noted in the court case, one of the issues was that monitoring flows within smaller ephemeral creeks is incredibly difficult. NRAR's own expert admitted that they have never installed monitoring equipment in a small ephemeral stream of that nature. So, there's always going to be an element of uncertainty in that data because of the nature of the environment that you are putting it in.

HM – In response to the groundwater, we were required to drill shallow bores to monitor shallow water levels. If we drilled deeper, they would not have achieved the objective which was to monitor shallow water. The fact that they are dry, is an indication that there isn't a shallow water source in that area and the water level is deeper which we know because there are deeper bores in the area which show that. We're making improvements in that monitoring program and the reason it's done through an EU is because it needs to be to the satisfaction of the regulatory body in order for it to be approvable and actionable. Without a doubt, we need to improve our water management system which is what we are doing. So, the hope is that this additional data will provide greater certainty, however, with all environmental data there's always some limitations in terms of what you can do with it and stream flow monitoring will always be difficult in smaller ephemeral creeks without building a large weir across it to monitor that flow more accurately.

JW – I'm having trouble understanding the relationship between the 1,000 ML of capture over those three years and the purchase of that property in more recent times. Could you explain if the 1,000 ML identified represents the water that was diverted onto that recently acquired property or is it more related to what happens on the mine site about capture of rainfall runoff within the mine area?

HM – The mine pleaded guilty to 1,000 ML of water take within the mine site. One of the issues raised within the court case was that, because of that take, that provided less water potentially to downstream users and to the environment. One of the things that was identified in the court case which was brought up by NRAR was these diversions and irrigation works which captured water out of Back Creek which prevented any impacts occurring further downstream.

LL – Just going to clarify with HM, when you upgrade your monitoring along Back Creek for streamflow and the moisture in the groundwater, how are you going to do that differently?

	<p>HM – The equipment we already use is fit for this purpose of monitoring water level in a creek. The issue is that monitoring water levels in ephemeral creeks is very difficult and you’re not going to get world class data out of it because it’s an ephemeral creek. We’re hoping that by having more monitoring stations that will have a better understanding of the flows. We’re also trying to identify rock bars within the creek and if they exist because that gives you a good flow control and then put in a monitoring station there.</p> <p>One of the other criticisms that came out of the court case is that the data hadn’t been filtered. We had been asked to provide raw data – that means it’s not filtered and not processed. So, there is some post-processing that is required to remove some of the noise and that hadn’t been done because we were told not to do it.</p> <p>LL – NRAR stipulate that the number of monitoring points and are they along the creek or are they inside your project boundary? And are they deeper or are they in exact same spots or different spots?</p> <p>HM – We are putting soil moisture probes in and there will be 3 locations that they’ll be put in and they’ll be at 4 depths. So, soil moisture probes will be 1 metre, 1.5 metres, 3 metres and 6 metres in 3 different locations. It’ll be upstream inline and downstream of the mine. We are also putting in gauging stations upstream and downstream of our clean water diversion discharge points and that way we can monitor for the changes to creek flows from our diverting of clean water.</p> <p>JW – When we went on our tour of the rehabilitated area on the northern side of the mine site, adjacent to the route that we took on the north side was a property, and I didn’t know whether it was owned by the mine or not.</p> <p>HM – All the land directly adjacent to the mine is owned by the Maules Creek mine.</p> <p>JW – I was wondering about the Galvanised Burr in that area and what was being done about that?</p> <p>EB - That area has since been slashed and sprayed to control the Galvanised Burr.</p> <p>DR – Thanked Huw for coming along today. Obviously, with concerns out in the community, it’s much appreciated to hear more about that. I’m looking at the “Summary of the Enforceable Undertaking”, if we could at each of our CCC meetings get an update on how those actions are proceeding. Even just a slide would be greatly appreciated.</p> <p>HM – We have a couple of milestones we have to hit. The first being we have to submit a new Water Management Plan by the end of November 2021, so that’ll have a lot of the details around the improved monitoring program. The locations. What we are doing. We’ll have all of those details available through that Water Management Plan.</p>	<p>ACTION 5 – WHC to provide updates at each meeting on actions</p>
<p>6.</p>	<p>General Business</p> <p>RK – Just wanting more information about the disposal of tyres. I’ve been reading about a process that has been developed and is being further developed in Australia called Destructive Distillation for tyres that weigh up to around 5 tonnes. I’m wondering if WHC are looking at any of these other innovative processes that are being developed and looked at in Australia in particular?</p>	

7.	<p>DS – Part of the Project Mod Approvals for both Werris Creek and Tarrawonga both noted that WHC would be required to investigate those other methods of tyre recycling. So, yes absolutely. The idea is to be able to recycle where there is an opportunity to do that. Apparently, there isn't in this area and even in QLD investigating. We don't know what the mod approval will come up with but presume it will be something similar.</p> <p>EB – Yes, same and part of that is that they need to put a report in, I think yearly to show that they have been continuing to research tyre disposal and the options available.</p> <p>RK – It's interesting with this "destructive distillation" process that it breaks the tyre down into 3 major components and that's oil, carbon, and steel. I believe there is a plant that is up and running at Warren in NSW which was quite surprising. Interesting process.</p> <p>LL – According to the Leards Forest Regional Biodiversity Strategy – Stage 2 – Strategy Report 3338R02 Biodiversity Strategy Final, MCCM to enhance the connectivity of habitats through corridor and buffer area establishment and management in Area 5. The success of mine rehabilitation is measured against analogue sites in the Leards State Forest. How many and where are the analogue sites. Are these locations fixed throughout the life of the mines? If no, to the above, what application or approvals were required to change the analogue sites and what was the justification.</p> <p>EB – I can answer part of it. As far as the analogue sites go, they are background monitoring sites. They remain constant for the life of mine unless they are destroyed. We would have started monitoring those pre mining starting out here and every spring.</p> <p>EB – The Annual Review was approved at the start of August. So, I did have bound copies to give everyone but that didn't go ahead. It is available on the website but if anyone does want a hard copy, I'm more than happy to send it out.</p> <p>DR – Hopefully, something went out in the Green Flyer this week which was a 1-pager describing the work of the Environmental Trust. Please feel free to bring that to the attention of your community.</p>	<p>ACTION 6 – WHC to provide information about the analogue sites as well as provide mapping</p> <p>ACTION 7 – WHC to provide link to The Annual Review</p> <p>ACTION 8 – WHC to send hard copies to Jack and Libby</p>
<p>Next meeting date to be agreed – Next meeting Wednesday 27 October 2021</p>		

Meeting Closed: 3:45 pm

Appendix 1: Actions

Page No	Action No	Description	Date Raised
3	1	Graph "Standing Water Levels – Regional GW – Standing water level June 2021" upside down. To be flipped for the next meeting.	8 Sept 2021
4	2	Biodiversity Modification Update	8 Sept 2021
4	3	How many tyres were buried in 2018 and how many tonnes	8 Sept 2021
4	4	Where were the tyres buried	8 Sept 2021
7	5	WHC to provide updates at each meeting on actions	8 Sept 2021
8	6	WHC to provide information about the analogue sites as well as a request for mapping to be provided	8 Sept 2021
8	7	WHC to provide link to The Annual Review	8 Sept 2021
8	8	WHC to send hard copies of The Annual Review to Jack and Libby	8 Sept 2021

Appendix 2: Briefing Notes from WHC



Briefing Note

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

Date: 12 May 2021 Reference: Responses to questions MCC CCC May 2021

Subject: Responses to MCC CCC Actions and Questions

Appendix 1. Actions noted during meeting.	Response
Action 1. EB to investigate lights	Lights have been investigated and repositioned accordingly.
Action 2. WHC to keep CCC updated on the offsets etc.	Noted
Action 4. MCC to keep CCC updated on exploring options for recycling of tyres.	Noted
Action 5. MCCM to answer – who supplies the large mining tyres to WHC?	Maules Creek Coal receives heavy vehicle tyres from two main suppliers: 1) Michelin 2) Bridgestone
Action 6. MCC to answer – How Many tyres to be disposed?	Maules Creek Coal will require the stockpile and disposal of approximately 400 waste tyres a year.

Maules Creek Coal Mine

CCC MEETING

MAULES CREEK COAL MINE

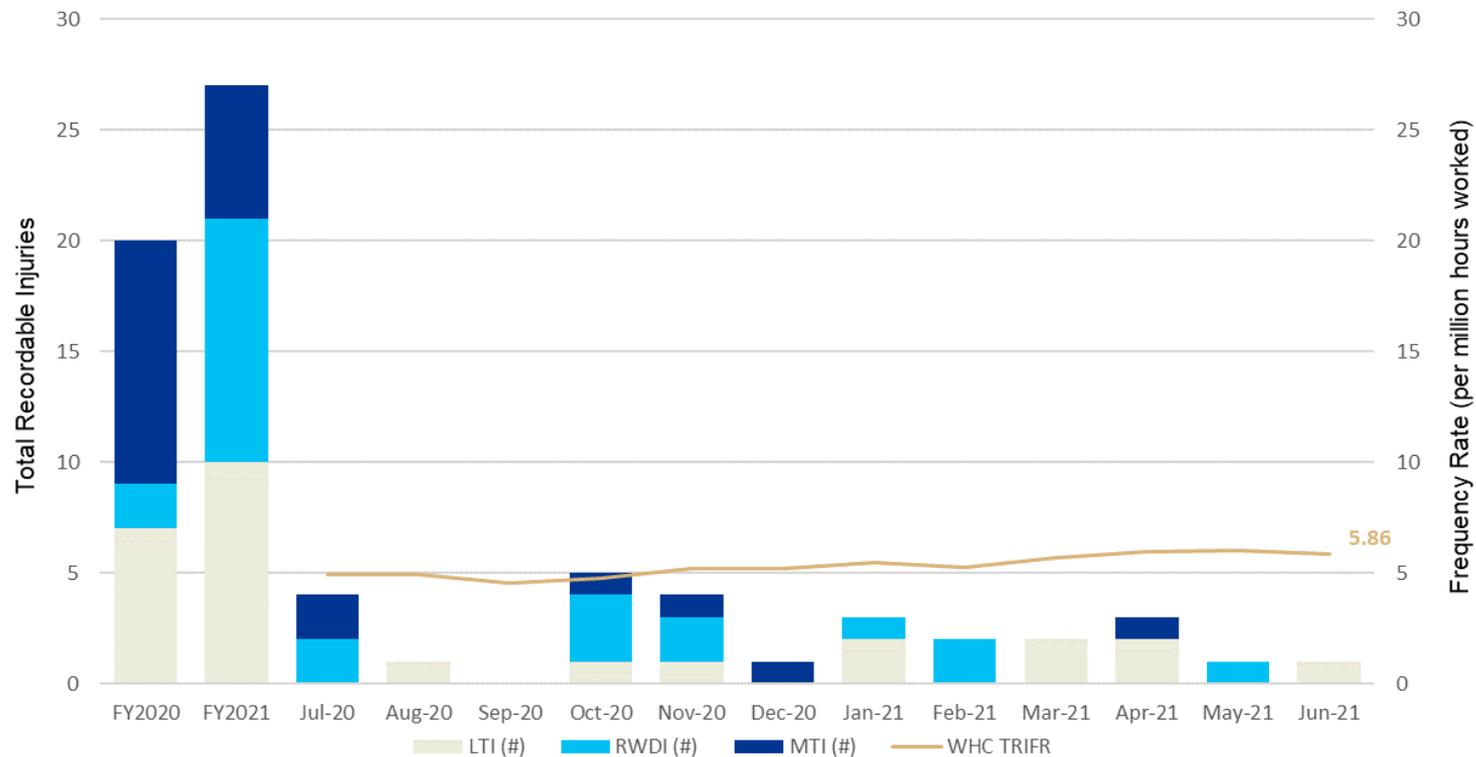
AUGUST 2021



Company Report & Overview of Activities

- FY21 production ~12.66 Mtpa ROM (Run of Mine) coal.
- FY22 target production ~ 12Mtpa ROM
- June 2021 TRIFR (Recordable injuries per million exposure hours) 5.86

Total Recordable Injuries & TRIFR - 12 Month Rolling



Health and Safety

COVID-19 Management

- Continued monitoring of compliance with current COVID-19 preventative measures.
- Continued monitoring of NSW Public Health Order and WorkSafe Australia.
- Ensuring our workforce remains informed.
- Business continuation plan in light of COVID Border restrictions.

Continuous improvement Projects

- Monitoring progress with Health and Safety Improvement Plan.
 - Improvement of control of vehicle interaction and integration of AHS Projects
- Vehicle hierarchy change management – Change from NSW road rules to vehicle Hierarchy

Employment

- Continued focus on local, indigenous and female employment with ongoing training programs undertaken.
- 524 MCC people are employed on site.
 - 11% of the MCC workforce are women.
- Indigenous Mentoring program
 - Aimed at improving Job satisfaction and attendance
 - 3 Categories
 - 1. Improve skill set for single skill operators
 - 2. Multi skill operators with 2 or more skills
 - 3. Group of 5 identified with management potential to be assisted with achieving higher level qualifications i.e. OCE

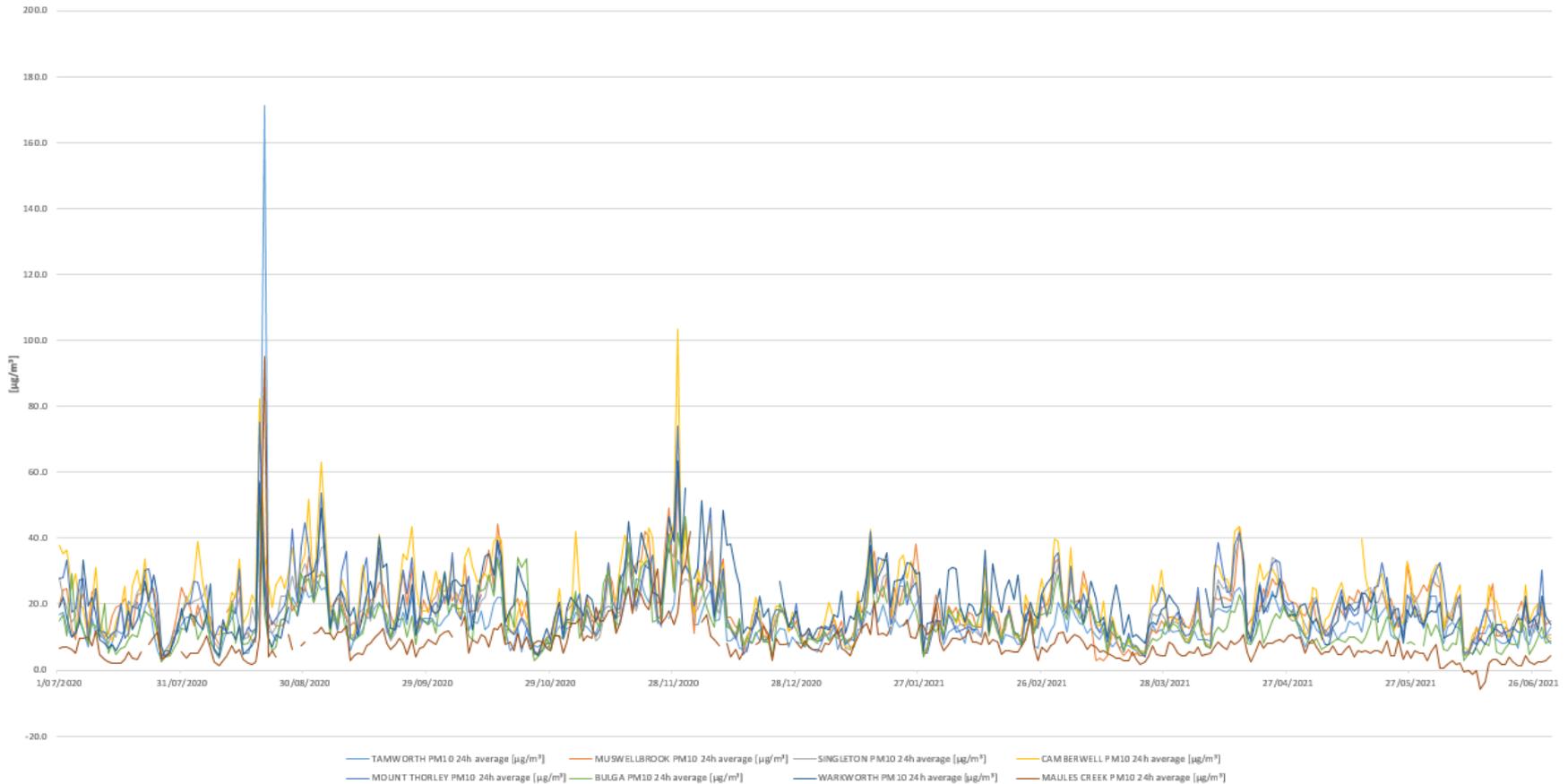
Air quality management

- Publically available results of TEOM1 available on the EPA website. Annual rolling average for TEOM 1 is 8.4 $\mu\text{g}/\text{m}^3$ at 30 June 2021 (criteria 30 $\mu\text{g}/\text{m}^3$).
- Ongoing dust suppressant application across the operation.
- Progressive overburden emplacement and bulk shaping on the northern dump, with top soil spreading and tree planting in progress.



Air Quality Monitoring July 2020 – June 2021

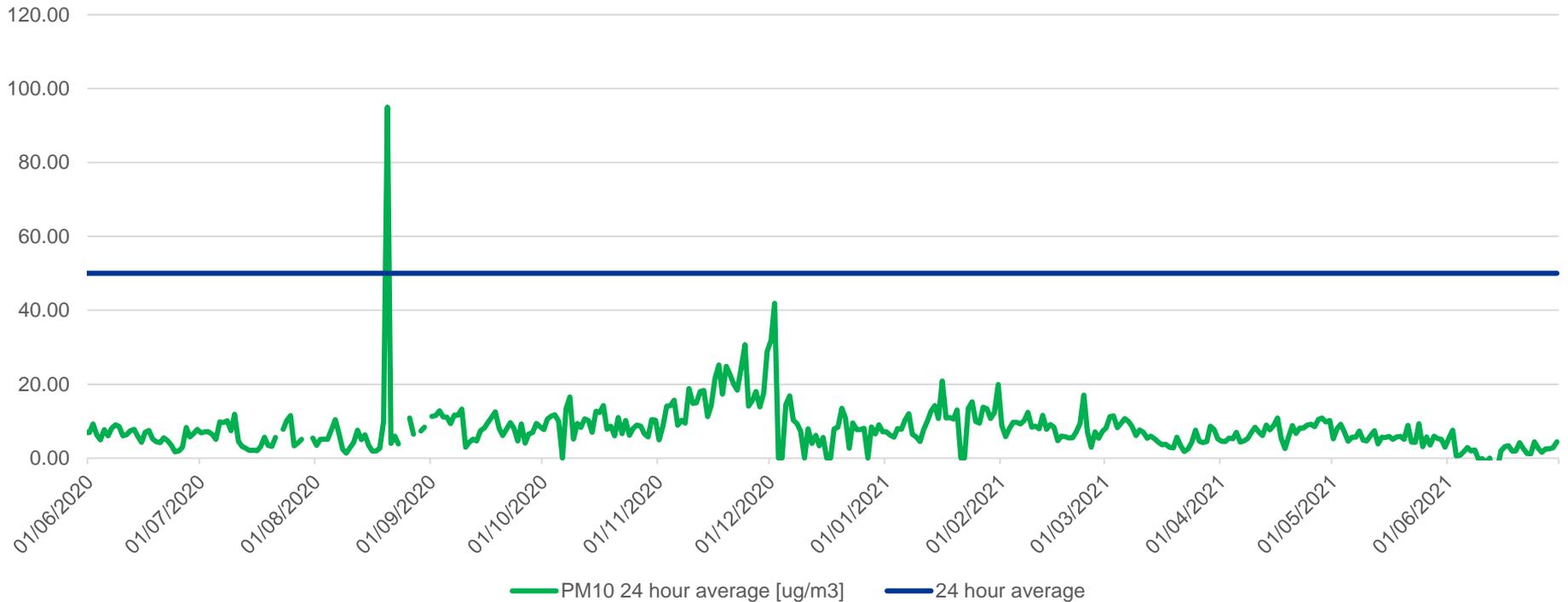
Regional air quality PM10 comparison



July 20 - June 21	TAMWORTH PM10	MUSWELLBROOK PM10	SINGLETON PM10	CAMBERWELL PM10	MOUNT THORLEY PM10	BULGA PM10	WARKWORTH PM10	MAULES CREEK PM10
Annual Average	14	19	17	21	19	14	19	8
Max 24hr Ave	171	59	58	103	75	49	64	95

Air Quality Monitoring 1 June 2020 – 30 June 2021

AQ Maules Creek TEOM1 PM10



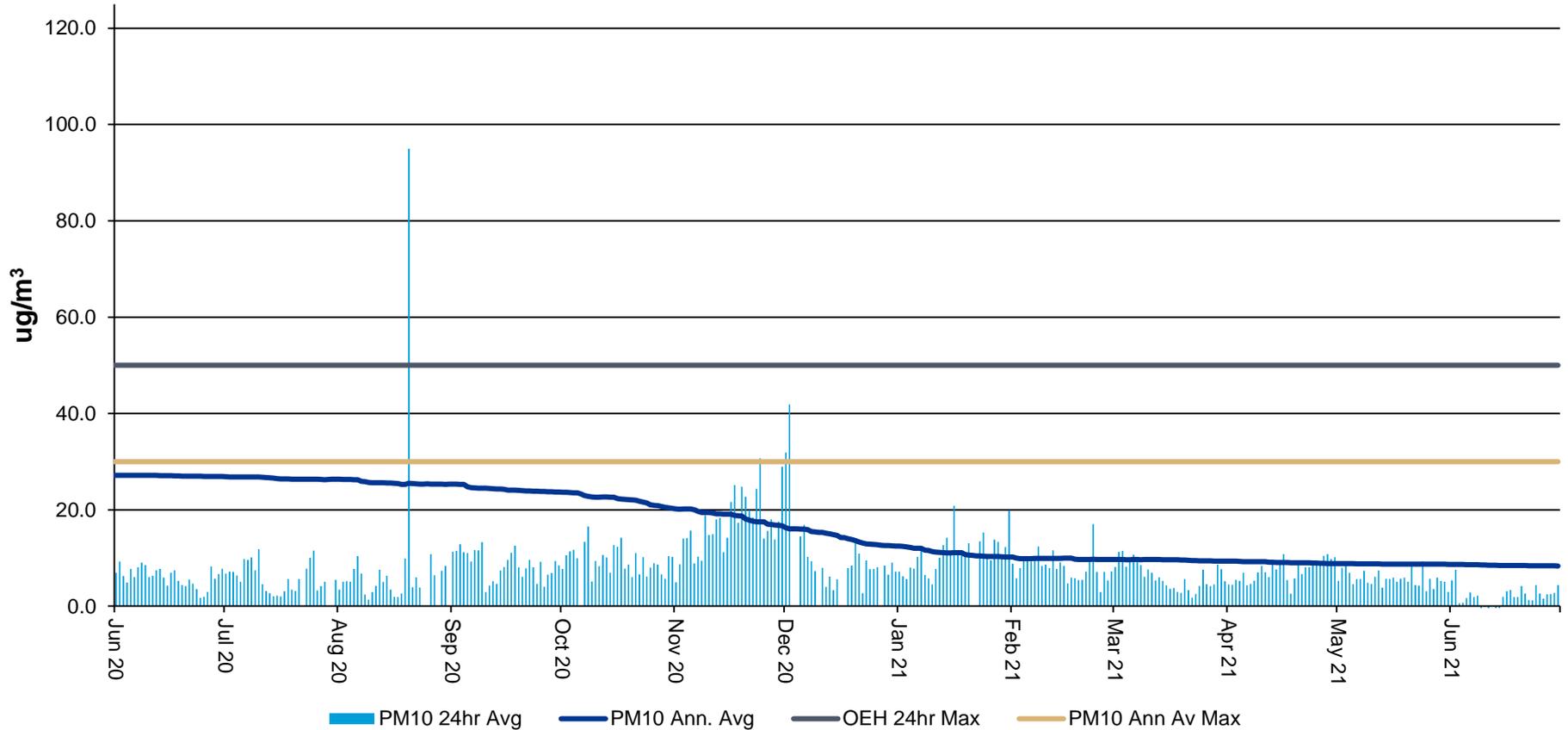
Annual rolling average for TEOM 1 is **8.4 $\mu\text{g}/\text{m}^3$** at 30 June 2021 (criteria 30 $\mu\text{g}/\text{m}^3$). There were no exceedances of 50 $\mu\text{g}/\text{m}^3$ during Q2 of 2021.

Monitoring and Environmental Results

- Monitoring and environmental results provided within the distributed information pack

TEOM PM10 Results

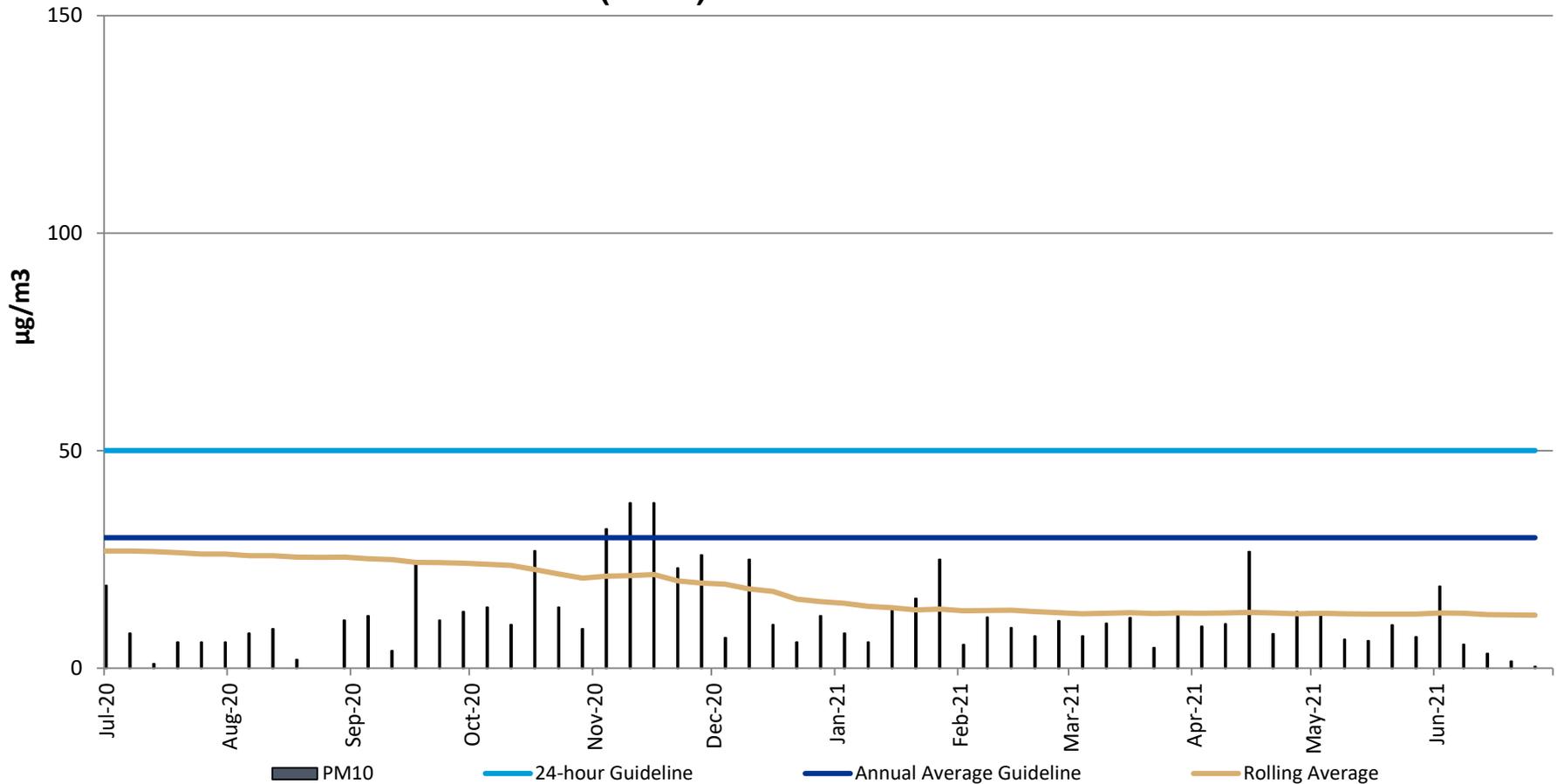
Maules Creek Coal Mine - TEOM 1 Results



Regional and local dust events due to drought conditions noted in spikes above

High Volume Air Sampling (HVAS)

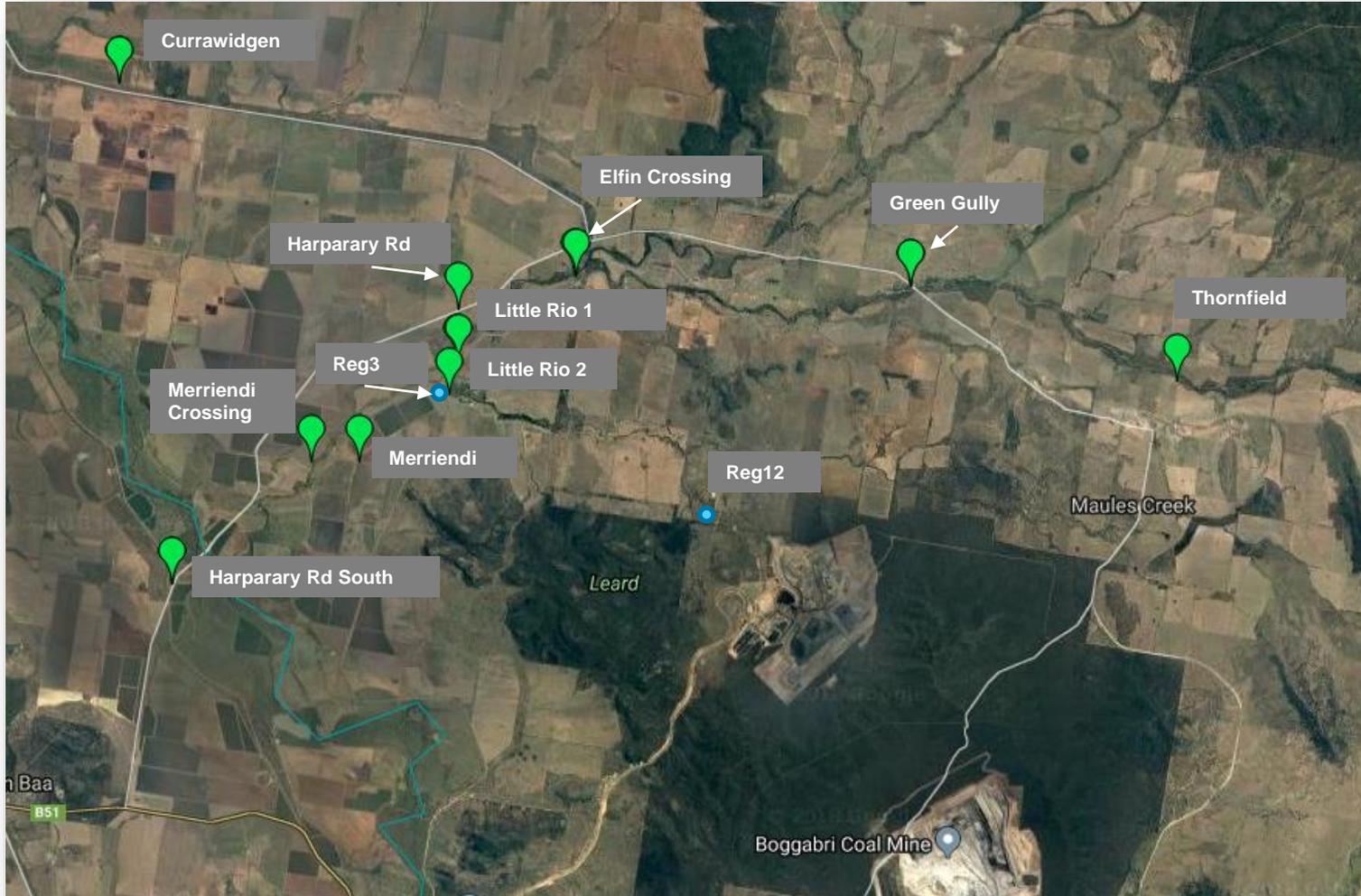
HVAS (PM10) - Olivedene



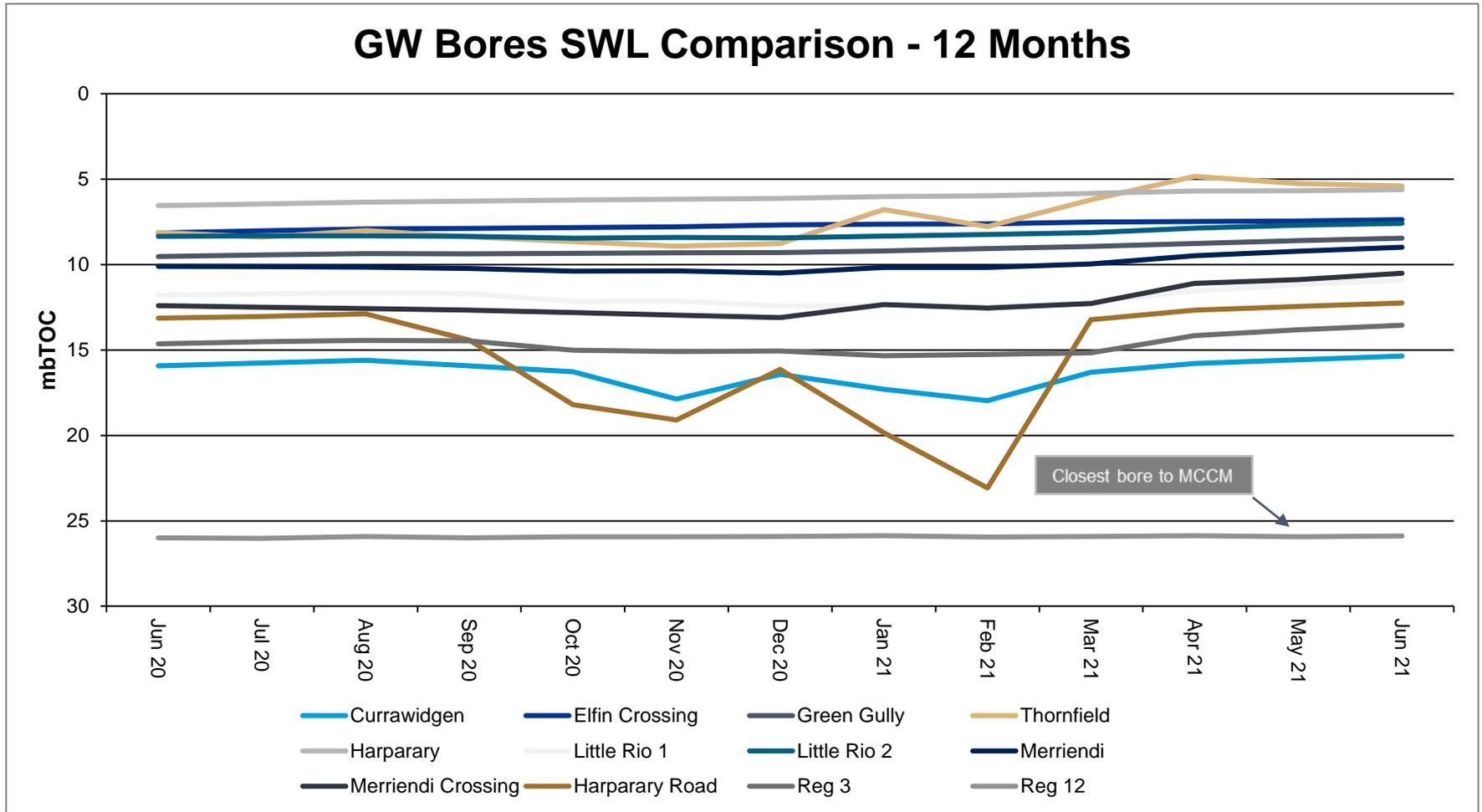
Groundwater monitoring



Monitoring Locations



Groundwater levels

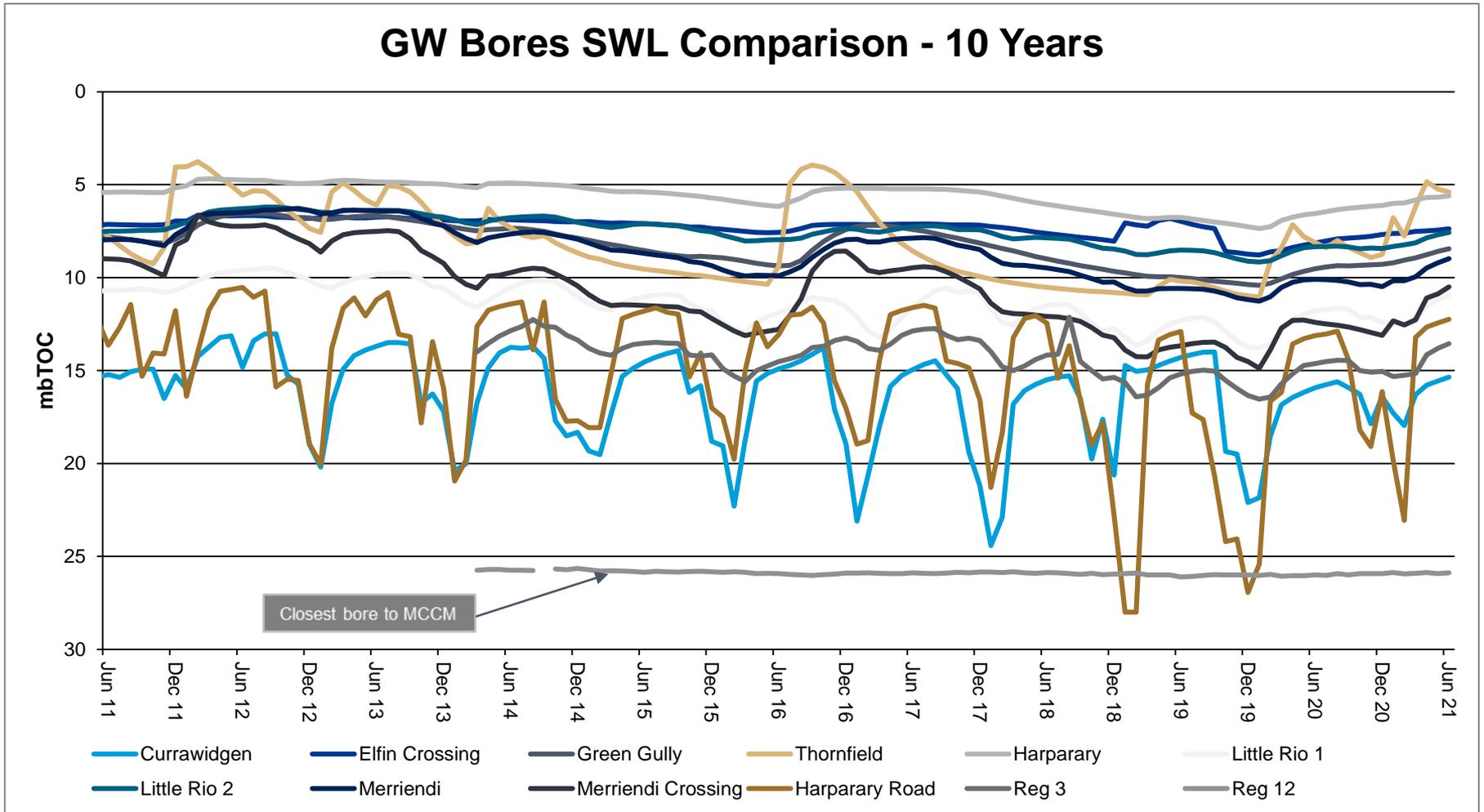


* Note Reg12 and Reg3 both within Boggabri Volcanics

Source: NSW DPI- Water & MCCM monitoring data

Groundwater levels

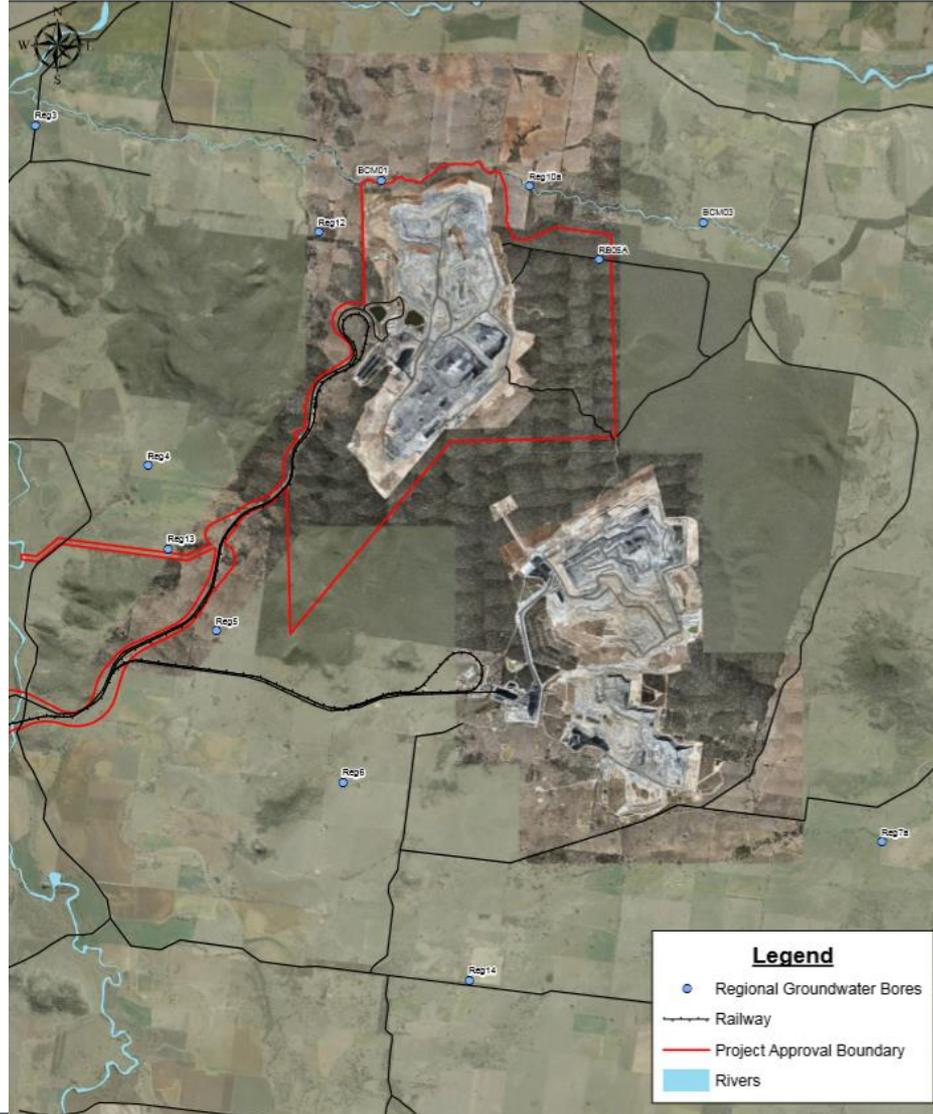
GW Bores SWL Comparison - 10 Years



* Note Reg12 and Reg3 both within Boggabri Volcanics

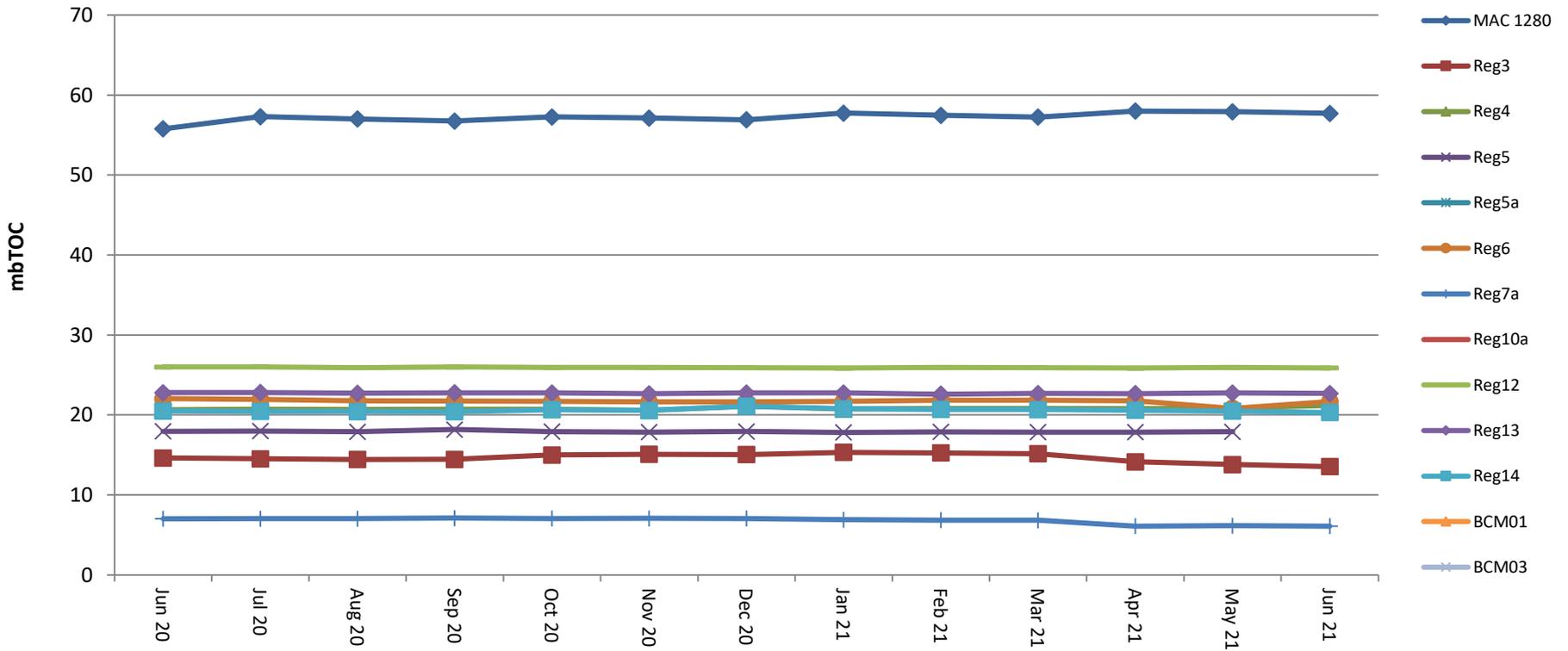
Source: NSW DPI- Water & MCCM monitoring data

Standing water levels



Standing water levels

Regional GW - Standing Water Level June 2021



Biodiversity Management

Feral Animal Management

- During the most recent routine Whitehaven Offset Area Feral Animal Control program (June 2021) the results included:
 - 101 out of total 158 pigs trapped were from the Maules Offset properties
 - 455 out of total 771 baits (1080) taken were from the Maules Offsets properties

Weed Control

- Targeted seasonal control for Patterson Curse and other broad leaf Weeds;

Revegetation

- Annual Tree Planting Program ongoing



Biodiversity Management

Threatened Flora

- Quarterly inspections in May undertaken for Tylophora and Pomaderris sites
- Planning to plant additional 85 Pomaderris seedlings in August
- Maintenance of Threatened Flora Site Fences

Habitat Augmentation

- Installed 172 Nest Boxes in June for Gliders, Parrots & Microbats

Heritage Management

- Annual Site Inspection and Maintenance of Heritage Site fences



Biodiversity Management

Upcoming works:

- Quarterly Pest Animal Monitoring and Control Program in August to October 2021.
- Commence Biodiversity Tree Planting Program 2021.
- Continued seasonal Weed Control Programs.
- Continued Maintenance Program including fencing repairs as required.
- Complete Habitat Augmentation Program including Nest Box Installation.
- Commence 2021 Autumn Ecological Burn Program on Onavale.
- Commence Spring Flora 2021 Monitoring.
- Quarterly Threatened Flora Inspections and Programs.

Community

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

1800 WHAVEN (1800 942836)

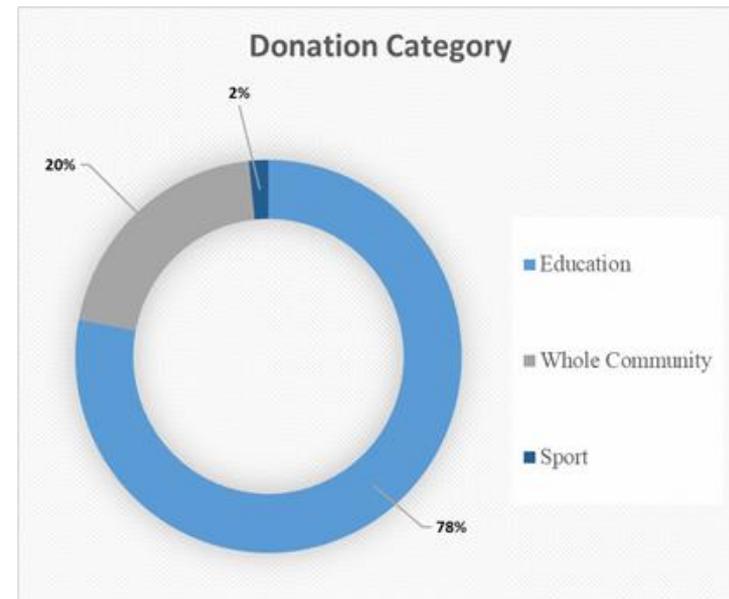
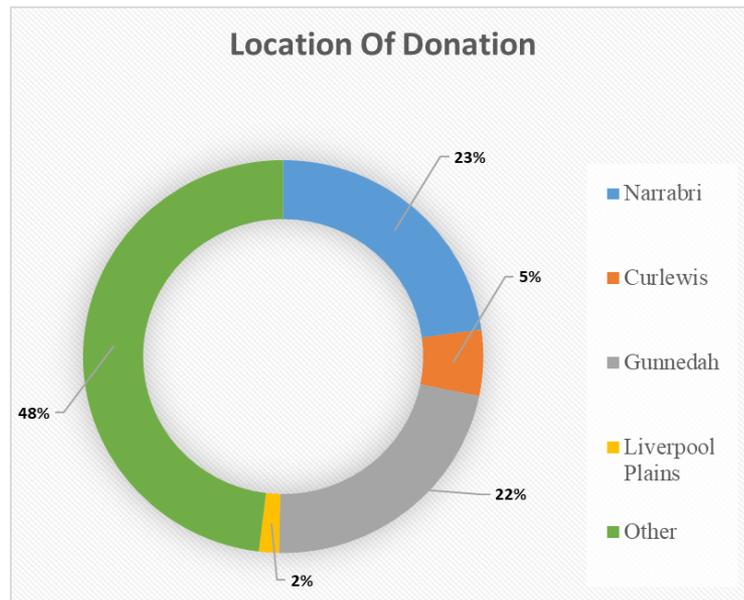
- Each Whitehaven site has a site specific feedback email address. Maules Creek email address is: MaulesCreekCoal@whitehavencoal.com.au

- Complaints details:

MAULES CREEK COAL MINE 2021 Community Complaints Register				
Date received	Method	Category	Nature of Complaint	MCCM Response
21/05/2021	Phone	Blast	Complaint received from Landholder regarding dust and potential fume following a blast event.	MCCM reviewed monitoring data and footage of the blast and provided a response to the Complainant.
24/05/2021	Complaints Line	Noise and Lighting	Complaint received from local resident regarding mine noise and lighting.	MCCM reviewed monitoring data and operational activities and provided a response to the Complainant.
25/05/2021	Complaints Line	Noise	Complaint received from local resident regarding mine noise, phone and internet reception.	MCCM reviewed monitoring data and operational activities and provided a response to the Complainant.

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 April – June 2021 over \$92,000. Highlights - over \$40,000 to Clontarf Foundation, \$21,000 to Boggabri Nurruby Early Learning Facility.



AHS Project Works

The AHS System has undergone enormous change in the past quarter. Hitachi have implemented Release 2 of their autonomous project, including;

- Major software releases
 - Changes to the virtual mapping solution
- Major Hardware Changes to Autonomous Trucks
 - New Obstacle detection systems

We expect increased safety and productivity results.

The AHS section of the Mine is planning to recommence operation shortly after these changes are finalised.



Maules Creek Coal Mine Approvals Update



PA Modification 7 - Landform

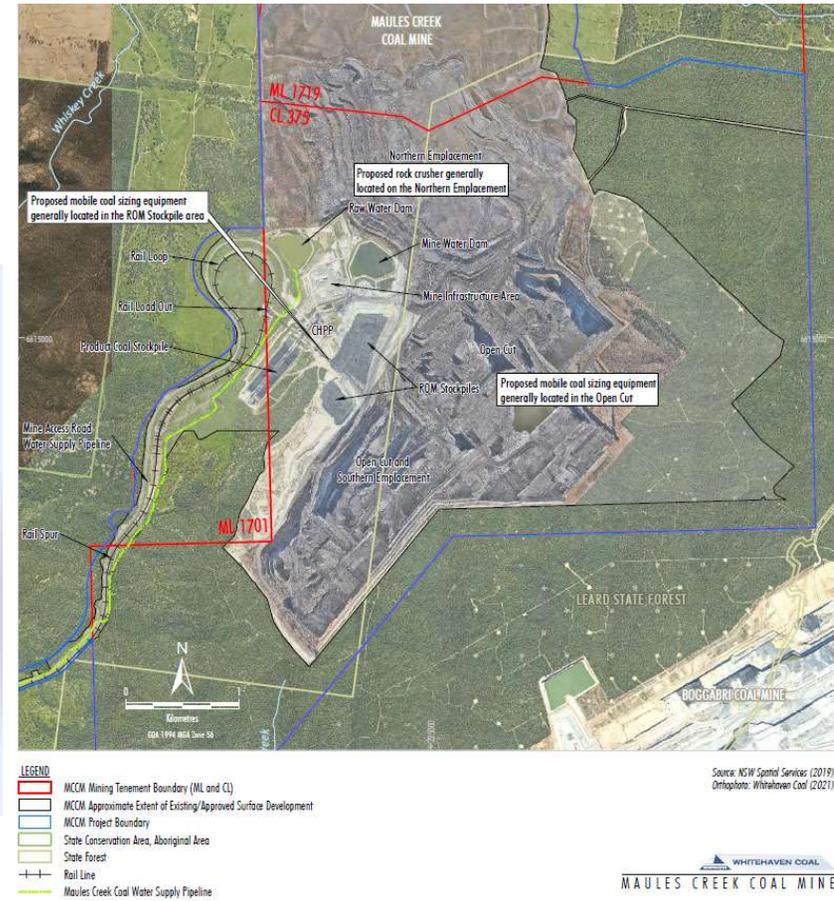
- Determined 24th August 2021
- Determination available at <https://www.planningportal.nsw.gov.au/major-projects/project/39656>
- Summary of Modification (refer Table)

Project Component	Previous MCCM Approval	MCCM Approval Incorporating the Modification
Mine life	Approved until 31 December 2034.	No change.
Hours of operation	24 hours a day, 7 days a week.	No change.
Project Boundary	As shown in Appendix 1 of PA 10_0138.	No change.
Mining method	Open cut mining.	No change.
Maximum annual ROM coal production rate	13 Mtpa.	No change.
ROM coal processing operations	CHPP and bypass coal.	No change.
Coal reject management	Co-disposal of rejects and waste rock in out-of-pit and in-pit emplacement areas.	No change.
Product coal transport	Rail spur and loop adjoins the Werris Creek Mungindi Railway.	No change.
Operational workforce	650 employees.	No change.
Waste rock management	Waste rock emplacement within the out-of-pit Northern Emplacement and the in-pit Southern Emplacement.	Extend the footprint of the Northern Emplacement within an area of CL 375 that is currently approved for disturbance. Increase the average height of a section of the approved and constructed Northern Emplacement to 439 mAHD, with localised higher points to incorporate macro- and micro-relief (i.e. gently undulating surfaces).
Water demand and supply	Water demand met by water captured by the on-site water management system and supplementary licensed sources (Namoi River and groundwater).	No change to MCCM's external water supply arrangements. Continued use of water captured within the on-site water management system and licenced supplementary sources. Continued use of existing water supply pipelines and associated infrastructure from the Roma, Brighton and Olivedene bores (as described in the MOD 5 Report and MOD 6 Report), and the Namoi River, to the MCCM.
Water management	Diversion of clean water to downstream environment. Retention and use of mine water and sediment laden water for mine activities.	No change to water management principles. To accommodate the Northern Emplacement footprint extension, relocate water management infrastructure within an area of CL 375 that is currently approved for disturbance.

Modification 8 – Tyre / Mobile Crushing

- MCCM uses various primary, secondary and tertiary coal sizing equipment to reduce the size of ROM coal before it is either processed (washed) in the Coal Handling and Preparation Plant (CHPP) or bypassed (unwashed) to the product stockpile.
- Maules Creek Coal Pty is proposing to use additional mobile coal sizing (crushing) equipment, located either in the open cut (i.e. in-pit) or out-of-pit ROM stockpile area, to increase amount of bypassed (unwashed) product.
- The Modification does not propose to change the approved coal extraction rate, product coal transport rate, Project Boundary, surface development footprint, mine life or MCCM's tenement boundaries. Further, no changes to the mine site rehabilitation area commitments are proposed as part of the Modification.
- Preliminary assessment findings indicate that the additional crushing plant will not materially affect current noise or air quality emissions.
- The *MCCM Noise Management Plan* and *MCCM Air Quality & Greenhouse Gas Management Plan* would be reviewed and revised if necessary by MCC to include the Modification (subject to any modified Project Approval conditions).

Indicative Type and Locations of Additional Crushing Plant



Maules Creek CCC briefing - Water



Summary of the court case

- **Maules Creek Coal Pty Ltd (MCCPL) pleaded guilty to unlawful capture of rainfall and surface water runoff into several highwall dams, sediment dams and the mine pit due to deficiencies in the water management system.**
- **1,000 ML of unlawful capture from the Maules Creek water source (unregulated). The only Water Access License (WAL) for this particular water source is a 30 ML WAL which MCCPL owns.**
 - This is a different water source to the regulated Maules Creek water source (i.e. where river extraction occurs).
- **The capture was assessed over three years:**
 - 665 ML in 2016/17
 - 176 ML in 2017/18
 - 159 ML in 2018/19

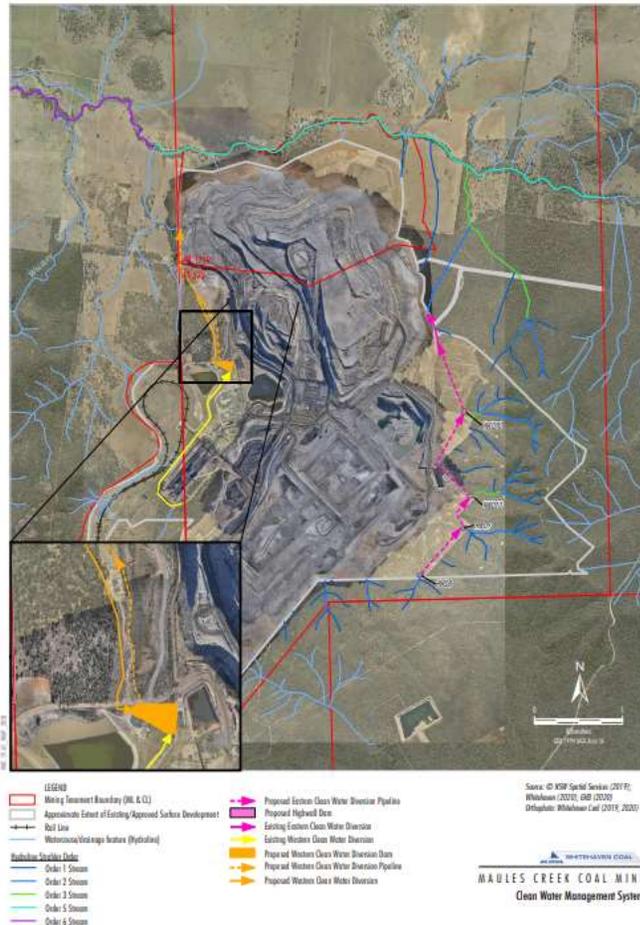
Outcome of the court case

- **MCCPL has entered into a Enforceable Undertaking (EU) with NRAR to rectify the deficiencies in the water management system.**
- **Awaiting judgement which is expected in the next few weeks.**
- **During the court case, an NRAR expert witness identified several significant creek diversions and irrigation works on Back Creek located on land recently purchased by MCCPL. They were constructed prior to 2011 and MCCPL's ownership. They are not associated with the mining operation.**
 - NRAR has determined these works are unlawful.
 - NRAR determined these works intercepted flows in Back Creek, which prevented any impacts from the mine occurring further downstream i.e. no impacts to Maules Creek or the Namoi River.
 - As the current owner MCCPL is working with NRAR to decommission the unlawful infrastructure and undertake restoration works on this property at substantial cost.
 - NRAR is carrying out an investigation into the unlawful infrastructure on this property.

Summary of the Enforceable Undertaking (EU)

MCCPL has entered into a EU with NRAR, including:

- Construct 4 new highwall dams - currently under construction
- Construct the western clean water dam – already constructed
- Decommissioning of sediment dams SD7 and MC10 – Located on the mine entrance road
- Installation of new monitoring stations on Back Creek for stream flow, soil moisture and groundwater.
- Increased stream health and vegetation monitoring along Back Creek
- Quarterly reporting on the MCCPL website from mid 2022



Next scheduled meeting:

27 October 2021

SR 17 Narrabri 35

17 Maules Ck SR 11 Boggabri 18



THANK YOU

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Maules Creek Coal Mine Community Consultative Committee Meeting #34

Environmental Monitoring Report For the Q2 period, April – June 2021

Attended Noise Monitoring

Attended noise monitoring was undertaken at six locations during April, May and June 2021 by an independent acoustic consultant. The measured noise level (L_{Aeq 15 minute}) attributed to Maules Creek Coal Mine (MCCM) and applicable criteria for each location are shown in the tables below.

L_{Aeq}, 15minute GENERATED BY MCCM AGAINST OPERATIONAL NIGHT NOISE CRITERIA – APRIL TO JUNE 2021.

Table 1 - April Noise Monitoring

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies ¹	MCCP L _{Aeq} dB ²	Exceedance dB ³
NM1	14/04/2021 22:30	0.4	0.0	35	Yes	IA	Nil
NM2	14/04/2021 23:30	0.5	0.0	39	Yes	IA	Nil
NM3	14/04/2021 23:34	0.4	0.0	35	Yes	IA	Nil
NM4	14/04/2021 23:00	0.3	0.0	35	Yes	IA	Nil
NM5	14/04/2021 22:00	0.3	0.0	35	Yes	29	Nil
NM6	14/04/2021 23:57	0.5	0.0	35	Yes	IA	Nil

Table 2 – May Noise Monitoring

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies ¹	MCCP L _{Aeq} dB ²	Exceedance dB ³
NM1	06/05/2021 22:40	0.9	0.0	35	Yes	<20	Nil
NM2	06/05/2021 23:45	0.4	0.0	39	Yes	<20	Nil
NM3	06/05/2021 23:33	0.4	0.0	35	Yes	<20	Nil
NM4	06/05/2021 23:13	0.4	0.0	35	Yes	<20	Nil
NM5	06/05/2021 22:08	0.9	0.0	35	Yes	<20	Nil
NM6	07/05/2021 00:15	0.9	0.0	35	Yes	<20	Nil

Table 3 - June Noise Monitoring

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies ¹	MCCP L _{Aeq} dB ²	Exceedance dB ³
NM1	17/06/2021 22:30	0.4	0	35	Yes	NM	Nil
NM2	17/06/2021 23:30	0.4	0	39	Yes	NM	Nil
NM3	17/06/2021 22:00	0.4	0	35	Yes	IA	Nil
NM4	17/06/2021 23:00	0.3	0	35	Yes	NM	Nil
NM5	17/06/2021 22:00	0.4	0	35	Yes	26	Nil
NM6	17/06/2021 23:58	0.4	0	35	Yes	NM	Nil

(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). Estimated or measured L_{Aeq} 15minute attributed to MCCM;

(3). NA in exceedance column means criterion is not applicable, either due to atmospheric conditions outside those specified in project Approval or due to property acquisition by MCC; and

(4). Indicates the application of a 2dB low frequency modifying factor.

IA/NM – Inaudible NM – Not measurable

During Q2 no measurements satisfied the conditions for further assessment when reviewed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry.

Maules Creek Coal (MCC) 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. The results for the LA1 monitoring are shown below. The results show that mine operations did not exceed the applicable LA1 criteria during attended noise monitoring in Q2 2021.

LA1, 1minute GENERATED BY MCC AGAINST OPERATIONAL NIGHT NOISE CRITERIA – APRIL TO JUNE 2021.

Table 4 - April Noise Monitoring – Night

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies ¹	MCCP LA1,1min dB ²	Exceedance dB ³
NM1	14/04/2021 22:30	0.4	0.0	45	Yes	IA	Nil
NM2	14/04/2021 23:30	0.5	0.0	45	Yes	IA	Nil
NM3	14/04/2021 23:34	0.4	0.0	45	Yes	IA	Nil
NM4	14/04/2021 23:00	0.3	0.0	45	Yes	IA	Nil
NM5	14/04/2021 22:00	0.3	0.0	45	Yes	32	Nil
NM6	14/04/2021 23:57	0.5	0.0	45	Yes	IA	Nil

Table 5 – May Noise Monitoring – Night

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies ¹	MCCP LA1,1min dB ²	Exceedance dB ³
NM1	06/05/2021 22:40	0.9	0.0	45	Yes	<20	Nil
NM2	06/05/2021 23:45	0.4	0.0	45	Yes	<25	Nil
NM3	06/05/2021 23:33	0.4	0.0	45	Yes	<25	Nil
NM4	06/05/2021 23:13	0.4	0.0	45	Yes	<20	Nil
NM5	06/05/2021 22:08	0.9	0.0	45	Yes	<20	Nil
NM6	07/05/2021 00:15	0.9	0.0	45	Yes	<20	Nil

Table 6 - June Noise Monitoring – Night

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies ¹	MCCP LA1,1min dB ²	Exceedance dB ³
NM1	17/06/2021 22:30	0.4	0	45	Yes	NM	Nil
NM2	17/06/2021 23:30	0.4	0	45	Yes	NM	Nil
NM3	17/06/2021 22:00	0.4	0	45	Yes	IA	Nil
NM4	17/06/2021 23:00	0.3	0	45	Yes	NM	Nil
NM5	17/06/2021 22:00	0.4	0	45	Yes	34	Nil
NM6	17/06/2021 23:58	0.4	0	45	Yes	NM	Nil

Notes:

1. Noise emission limits do not apply during periods of rainfall or wind speeds greater than 3 metres per second (at 10 metres);
2. Estimated or measured LAeq,15minute attributed to MCCM;
3. Estimated or measured LA1,1minute attributed to MCCM;
4. NA in exceedance column means atmospheric conditions outside those specified in Project Approval and criterion is not applicable.

IA – Inaudible NM – Not measurable

Wind Direction during Attended Monitoring

Wind direction data is collected from the 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
April	SSE
May	SSE
June	WSW

Blast Monitoring

There were 25 blasts at MCCM during Q2 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 Quarter 2 2021

Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Noise	dB (Lin Peak)	All	25	95.56	111.3	120	No
Vibration	mm/s		25	0.18	0.86	10	No

Air Quality

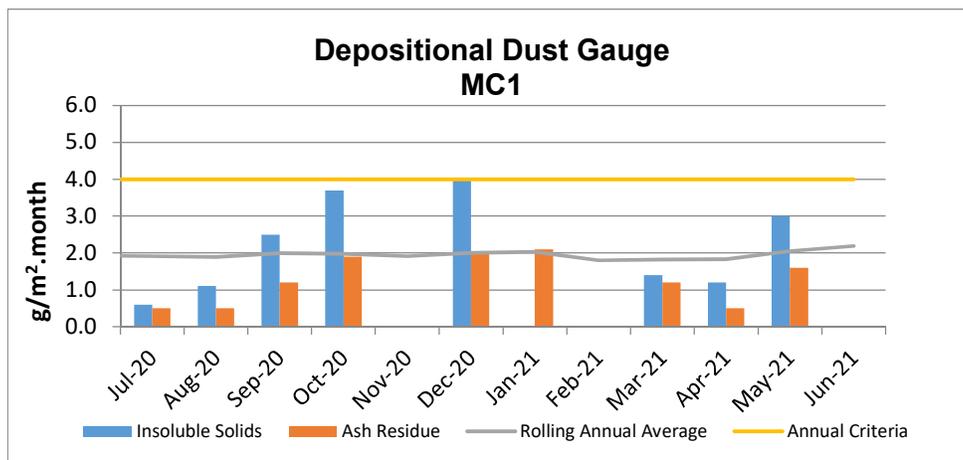
Total Depositional Dust

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

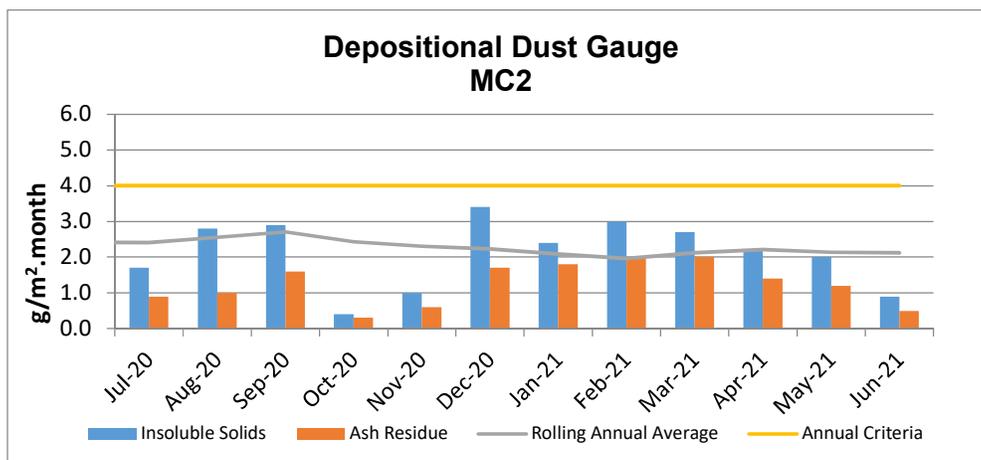
Table 9 – Deposited Dust Gauge Results [g/m²/month]

MONTH	MC1	MC2	MC3	MC4
April-21	1.2	2.2	0.5	0.3
May-21	3.0	2.0	3.2	1.1
June-21	4.3c	0.9	0.9	0.2
12 MONTH ROLLING AVERAGE	2.2	2.1	2.0	1.0

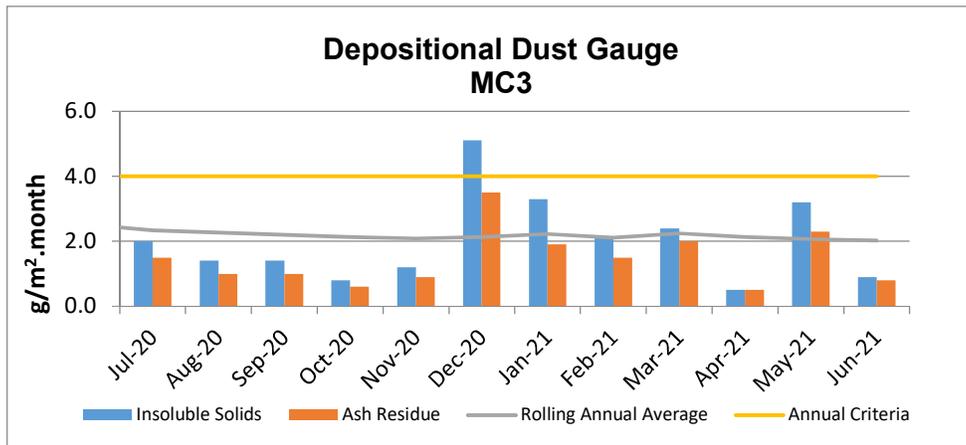
^c samples contaminated by bird dropping, decomposed insects or vegetable matter.



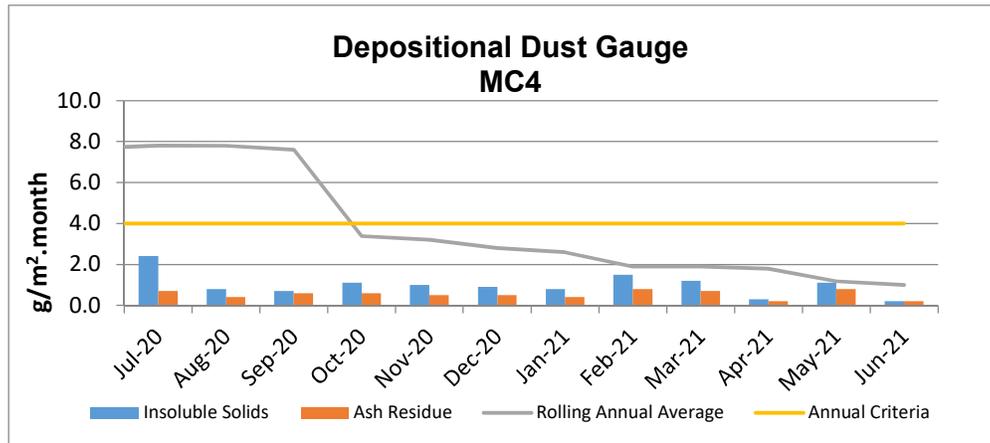
* Blank cells indicate sample periods where the sample has been contaminated and excluded from the results tables due to contaminated material (insect larvae, bird droppings, vegetation etc.).



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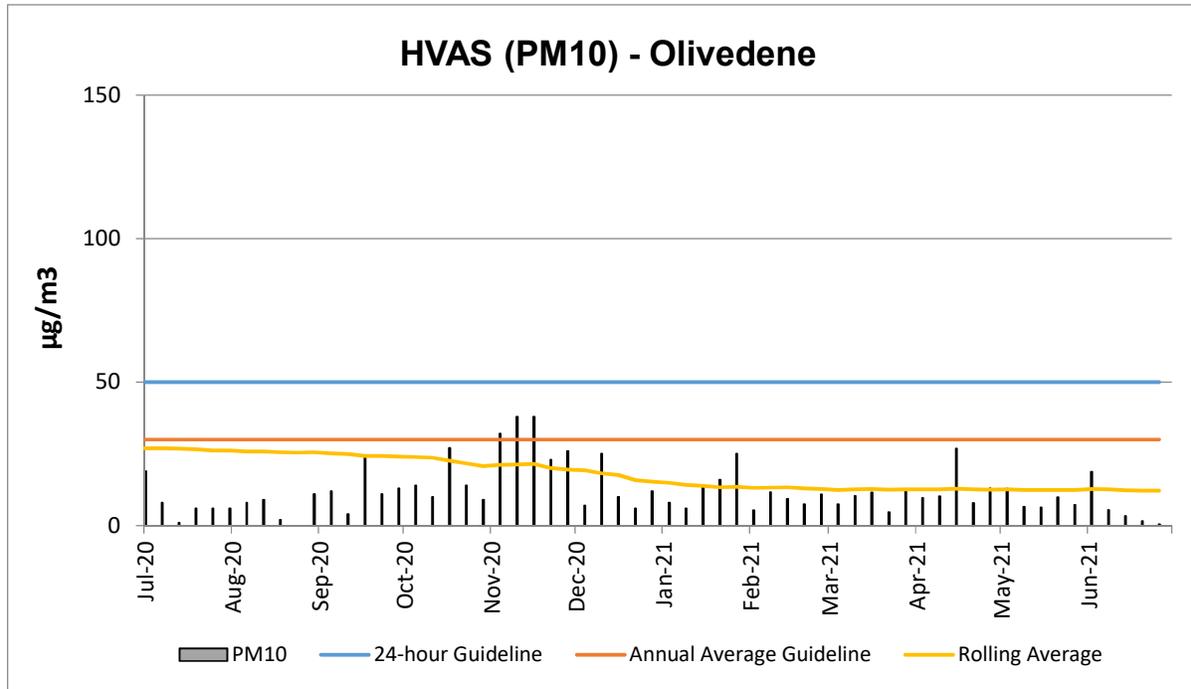


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High Volume Air Sampling (HVAS)

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

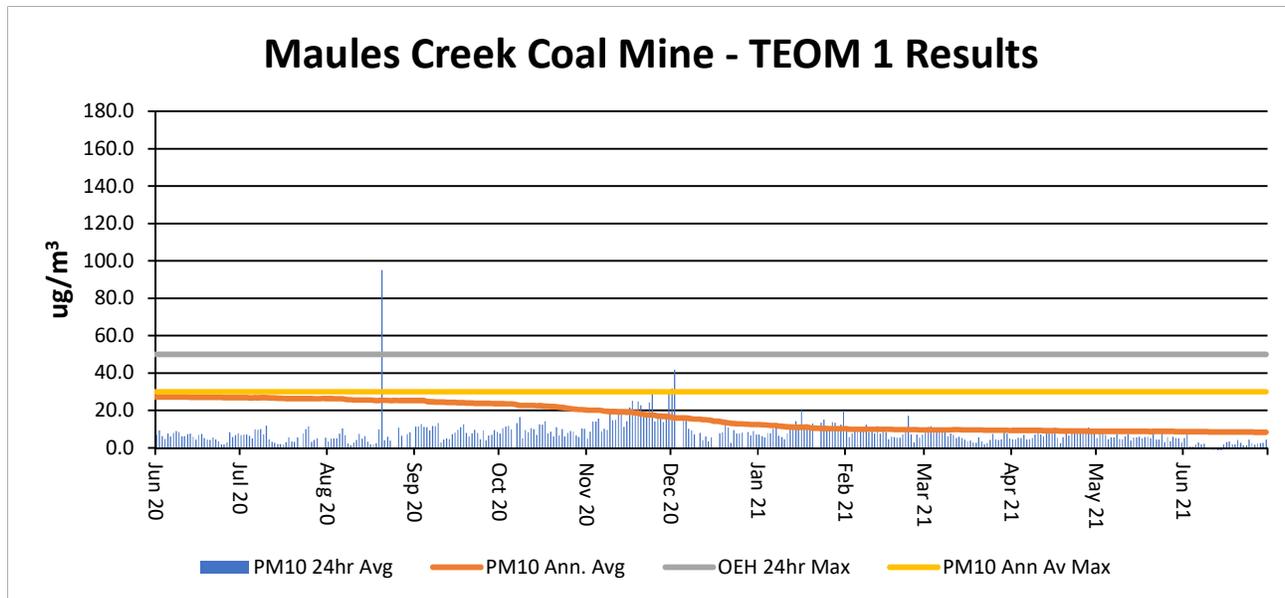
HVAS PM₁₀ Rolling Annual Average at the end of Q2 2021 was **12.2 $\mu\text{g}/\text{m}^3$** , which is below the Annual Average Guideline of 30 $\mu\text{g}/\text{m}^3$.



TEOM - PM₁₀ Results

The annual rolling average for PM₁₀ at the Maules Creek Coal TEOM was **8.4 µg/m³**, which is 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.

TEOM Result Figures – Particulate Matter PM₁₀µg/m³



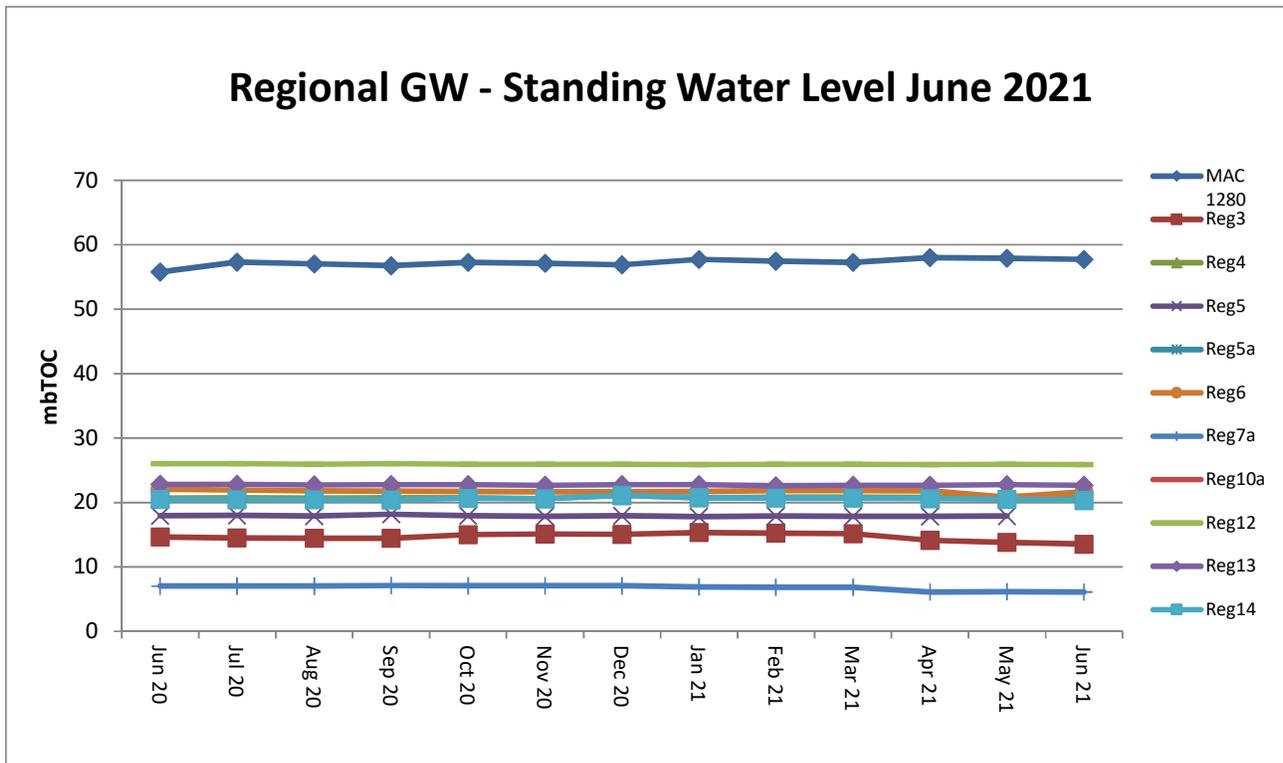
* Blank columns indicate sample periods where there was either power outage, maintenance or other related causes.

** Exceedances of the OEH 24hr Maximum over the past 12 months have been non mine related and have been attributed to regional dust events. All previous exceedances have been discussed at CCC meetings.

Water Monitoring

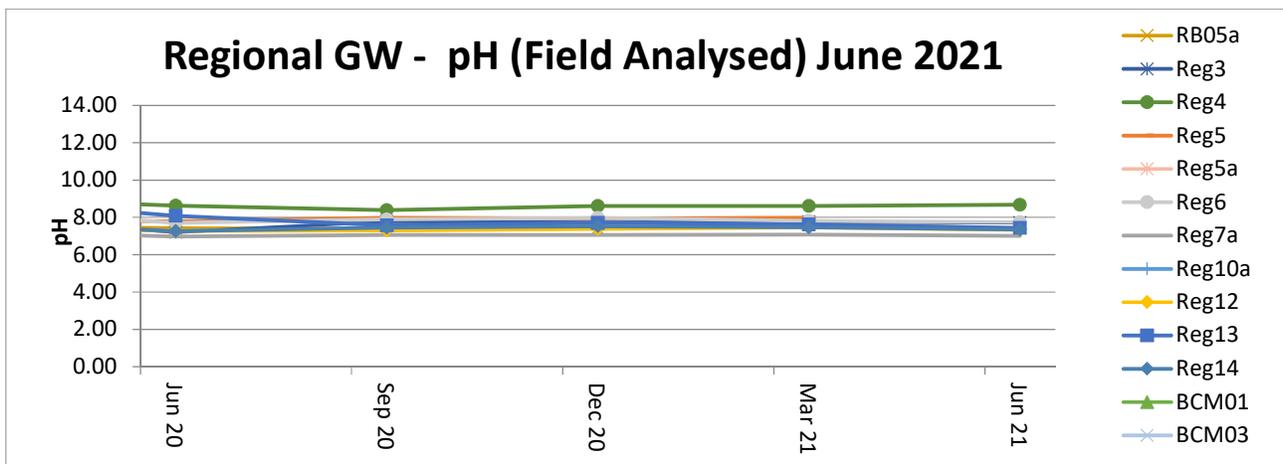
Groundwater

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.



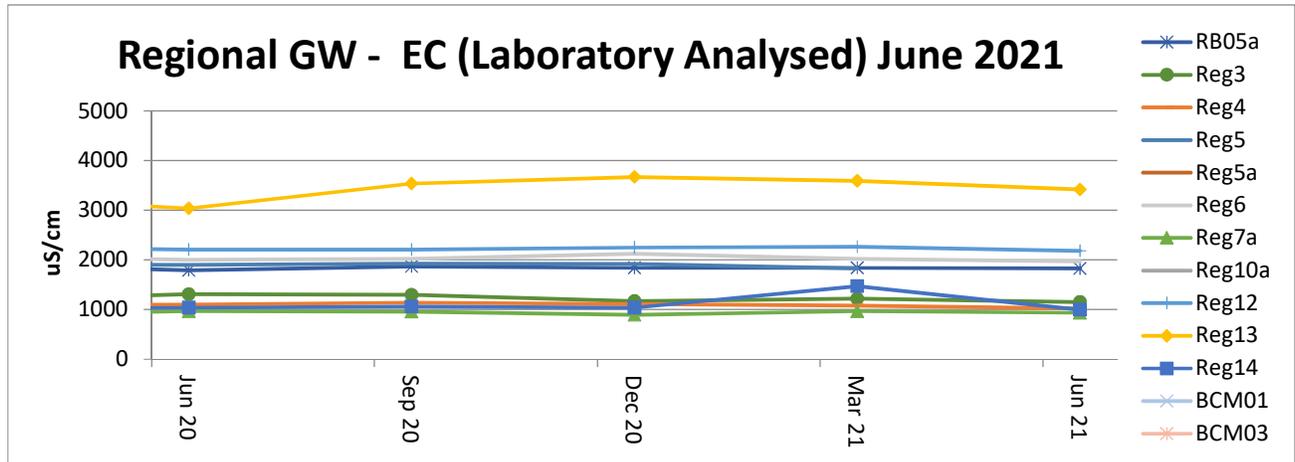
Acidity / Alkalinity (pH)

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

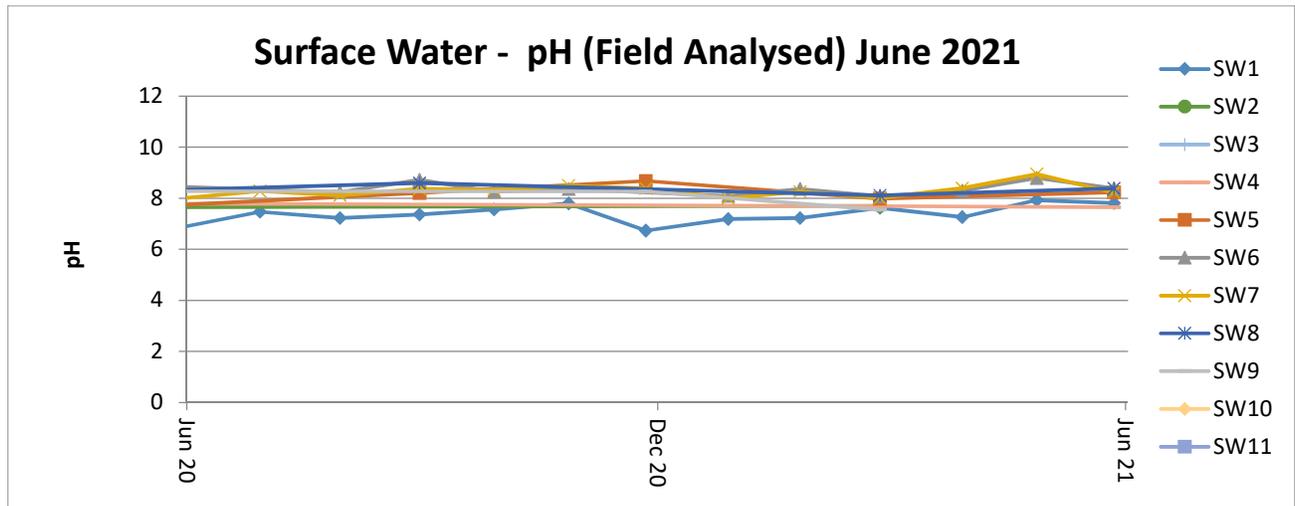


Surface Water – Creeks and Rivers

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 eight were able to be sampled during Q2 2021.

Acidity / Alkalinity (pH)

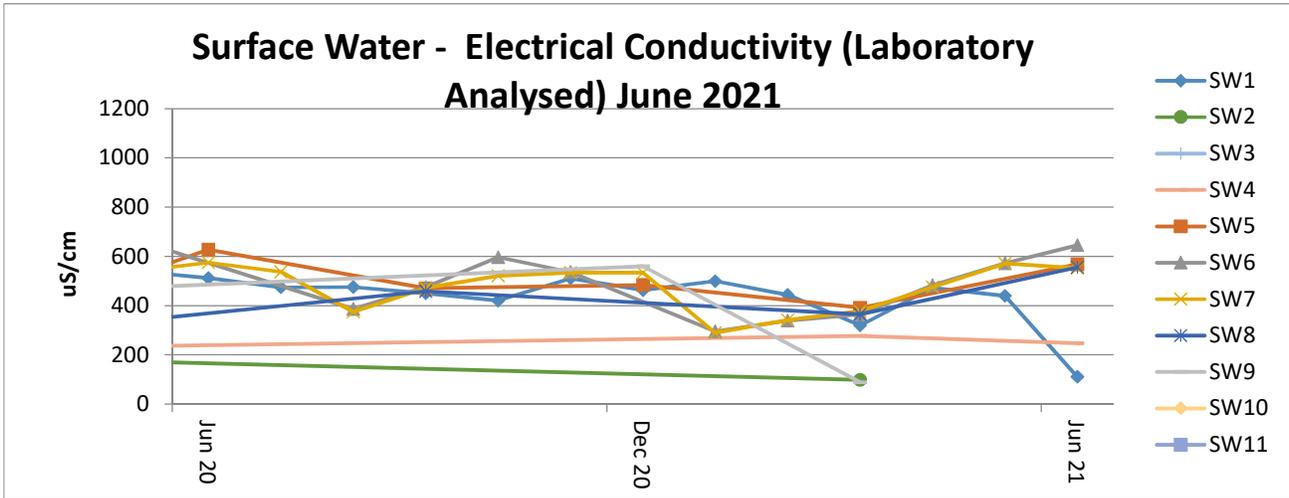
Monitoring results for pH in creeks and rivers surrounding MCCM are all trending within the ANZECC range for Irrigation, Ecosystem Health and Recreation.



*0 values indicate no water to sample due to the creek being dry

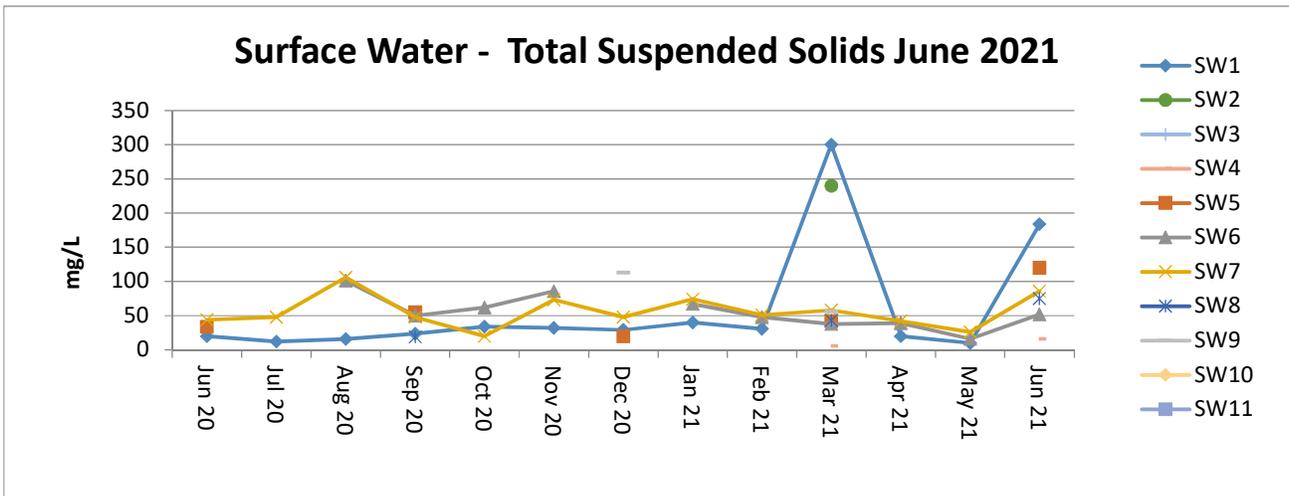
Electrical Conductivity

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.



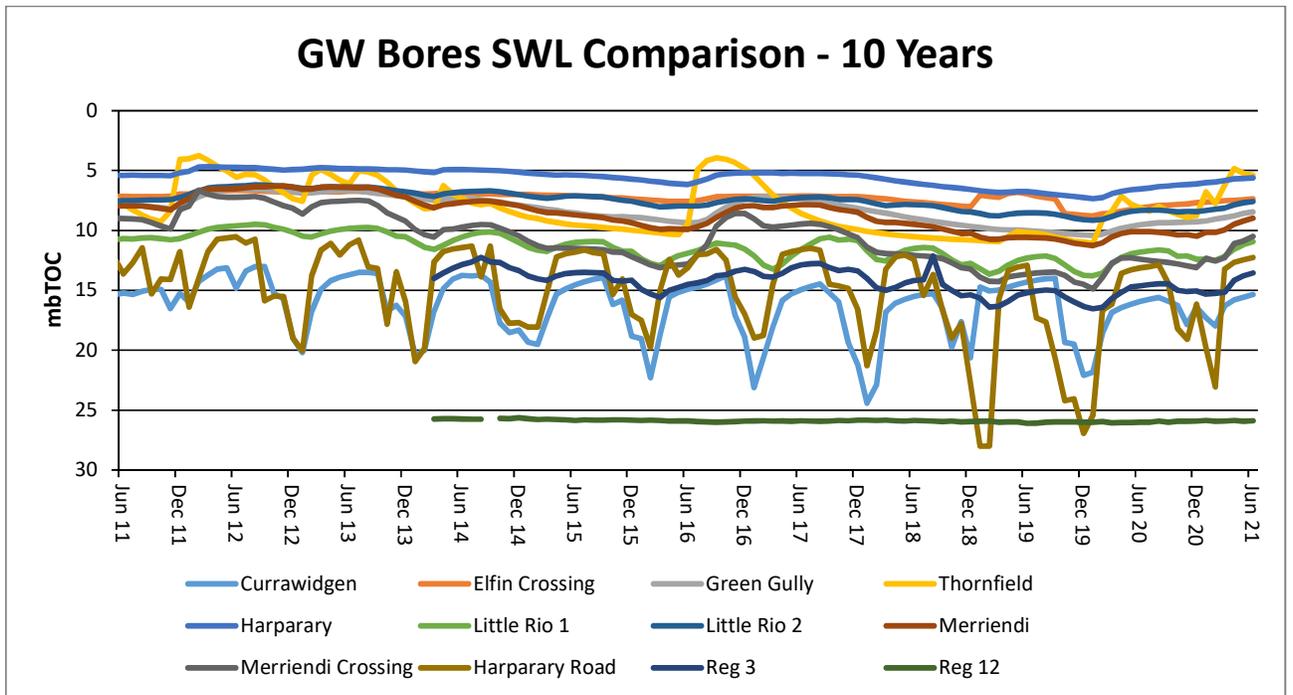
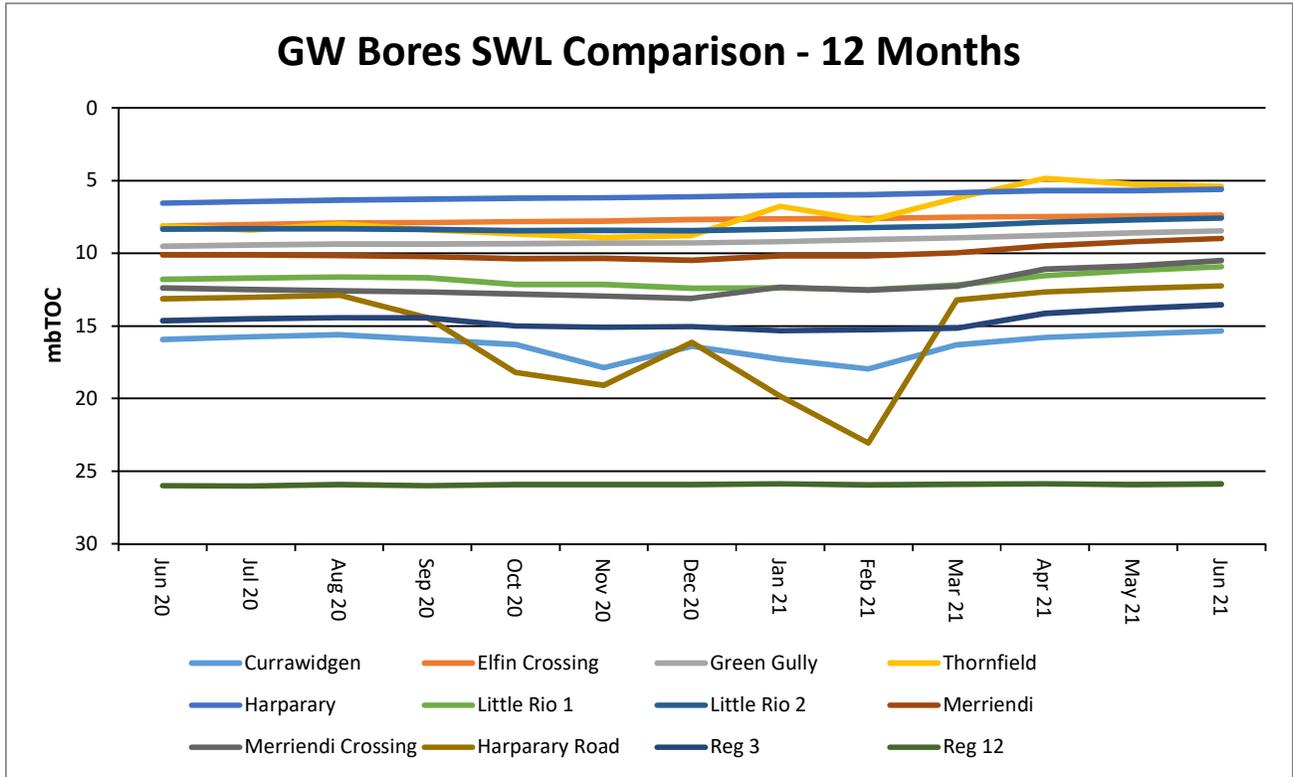
Total Suspended Solids (TSS)

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. There were elevated levels of TSS in Q2 due to significant rainfall events.



Regional Groundwater monitoring

Maules Creek Coal Mine monitors regional bores across the region.



Rehabilitation

Progressive rehabilitation works are ongoing. 40,000 trees have been planted in the rehabilitation areas over the previous quarter.

Feral Animal Management

The most recent routine Whitehaven Offset Area Feral Animal Control program (June 2021) saw the following results:

- 101 out of total 158 pigs trapped were from the Maules Creek offset properties
- 455 out of a total 771 baits (1080) taken were from the Maules Creek offset properties

Weed Control

- Targeted seasonal weed control for Patterson Curse and other broadleaf Weeds

Threatened Flora

- Quarterly inspections in May undertaken for Tylophora and Ponaderris sites
- Planning to plant additional 85 Pomaderris seedlings in August
- Maintenance of Threatened Flora Site fences

Habitat Augmentation

- Installed 172 Nest Boxes in June for Gliders, Parrots and Microbats.

Fire Management

- Currently planning 2021 Autumn Ecological Burn Program

Fencing and Waste Management

- Ongoing maintenance of Heritage Site fences

Community Complaints

- Three complaints were received during Q2 CY2021.

Date	Method	Category	Nature Of Complaint	MCCM Response
21/05/2021	Phone	Blast	Complaint received from Landholder regarding dust and potential fume following a blast event.	MCCM reviewed monitoring data and footage of the blast and provided a response to the Complainant
24/05/2021	Complaints Line	Noise and Lighting	Complaint received from local resident regarding mine noise and lighting.	MCCM reviewed monitoring data and operational activities and provided a response to the Complainant.
25/05/2021	Complaints Line	Noise	Complaint received from local resident regarding mine noise, phone and internet reception.	MCCM reviewed monitoring data and operational activities and provided a response to the complainant.