

**Notes:** Notes of the 30<sup>th</sup> Meeting of the Maules Creek Coal Community Consultative Committee  
Meeting via video call

**Wednesday 12 August 2020**

**Members Present:** Andrew Garratt (AG) – WHC, Cr Robert Kneale (RK) – Narrabri Shire Council, Emma Bulkeley (EB) – WHC, Jack Warnock (JW) – Community Representative, Libby Laird (LL) – Maules Creek Community Representative, Ross Wilson (RW) – WHC

**Apologies:** Darren Swain (DS) – WHC, David Paull (DP) – Sustainable Living Armidale (SLA), Lyndell Crowley (LC) – Boggabri Business & Community Progress Association, Robyn Grover (RG) – Community Representative (Alternate), Simone Moodie (SMo) – Community Aboriginal Representative, Steve Eather (SE) – Community Representative

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

**Independent Secretary:**

Debbie Corlet (DC)

<b>Agenda Items</b>	<b>Who to Present</b>
1. Introductions and apologies	DR
2. Declaration of pecuniary or other interests	ALL
3. Business arising from the previous minutes – Action List Distributed	DR / DS
4. Minutes (notes) of the previous meetings – Wed 13 May 2020	DR
5. Correspondence	DR
6. Overview of the mine	DS
7. Environmental monitoring	DS / RW / EB
8. General business	ALL
9. Next Meeting – Wednesday 28 October 2020	

Agenda Item	Discussion	Action/By Whom
1.	<b>Welcome and Apologies</b> – DR welcomed everyone to the CCC, being held via a video call.	ACTION 1 – DR to contact all members 1 week before next meeting
2.	<b>Declaration of pecuniary or other interests</b> – DR advised he is paid a fee to chair these meetings as is DC for typing the minutes.	
3.	<b>Business Arising from the previous minutes</b> – DR advised that there were a couple of actions that came out of our last meeting that will remain open. Two of those are to remain open. One of those - for WHC to organise biodiversity staff to attend the next meeting – will take place at the October meeting.	
4.	<b>Confirmation of the minutes of the previous meeting (February 2020)</b> – All agreed and approved of the previous meeting minutes.	
5.	<b>Correspondence</b> – No correspondence has been received.	
6.	<p><b>WHC Presentation by Ross Wilson, Emma Bulkely and Andrew Garratt</b></p> <p><b>Company Report &amp; Overview of Activities</b></p> <ul style="list-style-type: none"> <li>• FY21 target production 12Mtpa ROM (Run of Mine) coal. June 2020 TRIFR (Total Recordable Injury Frequency Rate (TRIFR) – injuries per million hours worked) 3.19 (down 45% from June 2019 (TRIFR 5.84) lowest ever for Maules Creek with continued focus to improve.</li> </ul> <p><b>Health and Safety</b></p> <ul style="list-style-type: none"> <li>• <b>COVID-19 Management:</b> 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.</li> </ul> <p>LL – Please obtain permission before coming onto any rural property as we actually have biosecurity issues and COVID-19 in terms of people coming on without permission.</p> <p>EB – The procedure would be that we would give 48 hours’ notice by contacting them and letting them know of our intention and get approval.</p> <p>AG – DS and I have recently visited about 20 properties and all of them were by appointment.</p> <ul style="list-style-type: none"> <li>• <b>Continuous Improvement:</b> Monitoring progress with Health and Safety Improvement Plan. Improvement of control of vehicle interaction and integration of AHS.</li> <li>• <b>Projects:</b> Vehicle hierarchy change management – Change from NSW road rules to the Vehicle Hierarchy system in order to improve safety. It reduces heavy vehicle interaction where large vehicles have right of way. Light vehicles we get them off the roads as much as possible and they give way instead of the 600-tonne haul truck.</li> </ul> <p><b>Employment</b></p>	ACTION 2 – WHC to briefly discuss access procedure at next meeting

- Continued focus on local, indigenous, and female employment with ongoing training programs undertaken. There have been 20 new trainees employed from May to June 2020. 11 were female. There are now 99 females employed onsite. Over 700 people are employed on site. Coordinated effort with state colleges and also looking at options with universities and hope to introduce some trade training programs and helping those kids that leave school at the end of Year 10 but don't want to go onto university etc.

#### **Air Quality Management**

- Publically available results of TEOM1 available on the EPA website. Annual rolling average for TEOM1 is 26.9 ug/m3 at 30 June 2020 (criteria 30ug/m3). Ongoing dust suppressant application across the operation. Progressive overburden emplacement and bulk shaping on the northern dump, with some topsoil spreading in progress. We've got 8 water trucks currently running in the operation. We have seeded just prior to the rain – 38 hectares of that northern dump. There is another 80 hectares due to be spread as soon as it dries out.

**Water – Groundwater levels and Standing water levels slides:** JW requested data be presented over longer period to see any notable. Plus, the graph is upside down.

#### **Monitoring and Environmental Results**

- Monitoring and environmental results provided within the distributed information pack.

#### **Biodiversity Management**

- **Feral Animal Management** – During the most recent routine Whitehaven Offset Area Feral Animal Control program (June 2020) the results included: 56 out of total 100 pigs trapped were from the Maules Creek / Boggabri area; and 142 out of total 286 baits (1080) taken were from the Maules Creek / Boggabri area.
- **Revegetation** – Undertaken tree planting on Kelso, Velyama, Louenville and Onavale Offsets.
- **Fire Management** – Continued fire break maintenance program. Preparation work for ecological burn program.
- **Monitoring** – Redundant Infrastructure Removal ongoing now that former internal fences have been removed from Maules Offset. Annual inspection of Heritage and Threaten Flora fenced areas.
- **Upcoming Works** – Feral Animal Monitoring and Control Program in August and September 2020. Ongoing Biodiversity Tree Planting Program 2020. Ongoing Fire Break Track Maintenance Program. Winter Bird and Spring Flora 2020 Monitoring. Undertake ecological burn program August 2020. Ongoing Derelict Infrastructure Removal.

#### **AHS Movement to Date – 30 June 2020**

- **Key Physical Achievements to Date** – Six (6) EH5000s are now operating autonomously 24/7. One Ex3600 loading the autonomous fleet. ANC Fleet equipped and working with AHTs. 6,500 loads hauled autonomous. >850,000 cubic metres of waste moved. 140 personnel trained to work with AHS so far.

#### **Community**

- Whitehaven continues to support the local Community with donations and sponsorships. However, due to COVID-19 social distancing many events have been postponed or cancelled and requests for support have been fewer. Where opportunities become available Whitehaven will continue to support the local community through this time. More information on Sponsorships and Donations can be found at – <https://whitehaven.com.au/sustainability/community/donations-sponsorships/>. Complaint details are on the website.

ACTION 3 – WHC to provide 2 slides for the water (shorter & longer durations)

LL – Would like to have some transparency about what you actually teach these young people about climate change. Climate change is extremely dangerous in our area and I want to know you are helping them to understand the role that coal plays in driving up our emissions. I think it needs to be known by the wider community as well.  
AG – We are not the ones providing the education ourselves, but I will be happy to provide full details and be transparent.

**Landform Modification – The Proposed Modification**

Waste rock is currently dumped both in-pit and ex-pit at MCCM. Over the next three years MCCM will transition away from majority ex-pit to a fully in-pit operation. During this period, it will be necessary to ensure that sufficient ex-pit dump capacity remains to maintain production at current and forecast rates, while gradually increasing the percentage of in-pit dumping. The additional ex-pit dump capacity would be delivered through a Modification that proposes to: extend the footprint of the Northern Emplacement within a part of CL 375 that is approved for infrastructure development. Increase the height of a section of the approved and constructed Northern Emplacement from the currently approved height (generally 430 mRL with a maximum of 438 mRL) to an average height of 439 mRL with localised higher points to incorporate macro and micro relief. To accommodate the footprint extension, water management infrastructure, topsoil stockpiles, an explosive reload area and access roads would be relocated within the western boundary of CL 375 in an area that is approved for infrastructure development.

Clarification was also provided to the CCC members with respect to what areas of mine operations would not be affected by the proposed modification as well as what specialist environmental assessments would be required (see attached presentation for further details).

JW – Can you tell me if there is going to be any change to the lights and the activities that can be seen at night in the current operation of the mine? Is it going to continue for longer?

EB – It will reduce the time that we will be on that out-of-pit dump western northern edge of the mine. So, it will send those lights back in-pit.

JW – Have you got some idea of when that light in the area will no longer be visible at night.

EB – I don't but I'll ask the project team. Is there a light in particular that is causing issues as we can also look at changing that in the short-term?

JW – There are a lot of different lights on during the night that are visible on that north and western side.

EB – The ones on the northern edge, we should be getting towards moving those away with that rehabilitation getting completed– this will be over on the western side as well. So, hoping they wouldn't be facing towards the valley. I'll have a chat to production to see if there is anything they can do with the current lights and I'll also take your question on notice and ask how quickly that will progress.

LL – I firstly want to apologise for being harsh or rude but I'm upset and stressed. First question is to Emma – when you talk about the out of pit western dump – can you tell me the name of that property so I can understand what you're talking about?

EB – I think it is the Testern property. There's an old quarry – in line with that.

ACTION 4 – WHC to present on what they teach in regard climate change

ACTION 5 – WHC to talk to production re the lights and how quickly to progress

<p>LL – Is there going to be a modification progressed with the Department or is this a minimal modification or more an administrative one or a formal modification?  EB – It’s a formal modification and we are currently consulting with the Departments at the moment. It’s under Section 455(2). It’s currently in consultation.</p> <p>With respect to the proposed modification, CCC members will then be provided with information on the rehabilitation and final landform, the modification application, itself, and the consultation undertaken or to be undertaken. Consultation with State and Local Government Agencies will take place and the Modification will then on public exhibition (see attached presentation for further details).</p> <p>LL then had a series of questions regarding the modification.  LL – once the modification is approved, would it have to clear more native vegetation on the western side?  EB – It won’t be clearing any vegetation that isn’t already approved for clearing under our current approvals.  LL – Would the clearing be moved forward?  EB – It will be in line with clearing that was already in place at the mine.  LL – How much clearing to facilitate the access roads and explosive reload area will be required?  EB – I don't know those figures off the top of my head, but I can take that on notice.</p> <p>LL then discussed the explosive reload area and the previous pollution event that resulted in an EPA clean up notice due to the contamination of the creek after a heavy rain event. LL observed that, under the modification, the resulting relocating of the explosives reloading area near much larger dams could, in a heavy rain event, cause an even larger pollution catastrophe along Back Creek and as far as the Namoi River.  EB – Since the clean-up notice was issued by the EPA, works have been undertaken to create a fully enclosed system which encloses the EPB’s which were released, which will result in a much better outcome for all and contains those EPB’s in a fully contained system.</p> <p>LL – How safe will the explosive reload area be?  EB – Well, in regard to the issue that you brought up, it will be built with a fully contained system. So, there will be little to no chance of that happening. So, there is a very low risk.</p> <p>LL – By raising the height of the overburden, how is this not going to increase the extent of erosion and velocity of runoff from rain events?  EB – So, the final decision is being put together by Goldar, it follows micro - macro reliefs, which channel the water into specially designed tributaries which then go into larger drains, which are reinforced rock lined drains, which will then take the water away from the dump. So once that dump is vegetated, there will be little to no chance of erosion.</p> <p>LL – When is the dump going to vegetated?</p>	<p>ACTION 6 – WHC to confirm if the property name is Testern</p> <p>ACTION 7 – WHC to confirm how much clearing will be required</p>
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	<p>EB – The dump will be revegetated once it has been completed in line with progressive rehabilitation practices.</p> <p>LL – When will WHC build the high wall dams that are in their approval conditions?  EB – We have sought an amendment to our Water Management Plan for the high wall dams that was approved, and they are scheduled to be built and designed. They won't be in line with those that were in the original Water Management Plan. They are in different locations as the mine has progressed.</p> <p>LL – Where have WHC buried tyres under the rehab area and in-pit?  EB – Tyres are not currently being buried at all.</p> <p>DR – Perhaps we've talked about this at a Joint CCC some time ago but how do you dispose of your tyres?  EB – So, tyres are currently stockpiled on site. They can be taken away to recycling facilities. There's nowhere in the region currently that can take mine equipment tyres.</p> <p>RK – I'll wait for further developments with public exhibition, so on and so forth. I can see WHC have already communicated with the Council and from my perspective, that would be with the employees of the Council within the administration planning section. So, not councillors. So, I'm not aware of that at the moment, but I did so just on this.  AG – So, we had a Zoom meeting with the GM and the Mayor but I'm waiting to see when we can do a face to face with all the councillors as well. I think we could do that on the back of the council meeting, so it is convenient for everybody.</p>	<p>ACTION 8 – DR to be alerted of when modification goes on exhibition</p>
<p><b>7.</b></p>	<p><b>General Business</b></p> <p>JW – Any comments to be made by WHC about the approval today by the IPC Vickery mine extension?  AG – Yes, the advice came through this morning from the IPC that the Vickery project had been approved. Perhaps in the future, we can provide an update but at the moment we are analysing the recommendations from the IPC.</p> <p>RK – Acknowledged Whitehaven's recent donation of \$10,000.00 to the Narrabri Future EDU, helping fund a local support officer working with local students and educators to prepare for STEM-based roles in industries across the Narrabri Shire. Has been greatly appreciated by the Narrabri Shire community.</p> <p>DR – Provided some reminders to the CCC with respect to the ARTC putting together a subscription list for people who might be interested in being emailed newsletters from time to time as well as the Environmental Trust is always keen to hear with respect to any applications that the community might have. As part of that reminder, you may not be aware that in terms of environmental improvements, they not only can include natural environmental improvements, but the community can also provide grant applications that might improve the social environment or the natural built environment. Please get that information out to the community through your networks.</p>	

	DR also gave the CCC an update on the Namoi River Air Quality Advisory Committee. The Committee, in accordance with EPA requirements, sits for a two-year term. Our two-year term has come to an end and so it's my understanding that the EPA at the moment is talking with the Minister about inviting people to apply once again to be on that Committee.	
<b>8.</b>	<b>Next meeting</b> - Wednesday 28 October 2020 at 2:00 pm.	

Meeting Closed: **3:40 pm**

#### Appendix 1: Actions

Page No	Action No	Description	Date Raised
2	1	Community Reps and DR's details to go into the Green Flyer.	13 May 2020
2	2	WHC to organise biodiversity staff to attend next meeting	13 May 2020
	3	DR to contact all members 1 week before next meeting	12 August 2020
2	4	WHC to briefly discuss access procedure at next meeting	12 August 2020
3	5	WHC to provide 2 slides for the water (shorter & longer durations)	12 August 2020
4	6	WHC to present on what they teach in regard climate change	12 August 2020
4	7	WHC to talk to production re the lights and how quickly to progress	12 August 2020
5	8	WHC to confirm if the property name is Testern	12 August 2020
5	9	WHC to confirm how much clearing will be required	12 August 2020
6	10	DR to be alerted of when modification goes on exhibition	12 August 2020

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# Maules Creek Coal Mine

CCC MEETING

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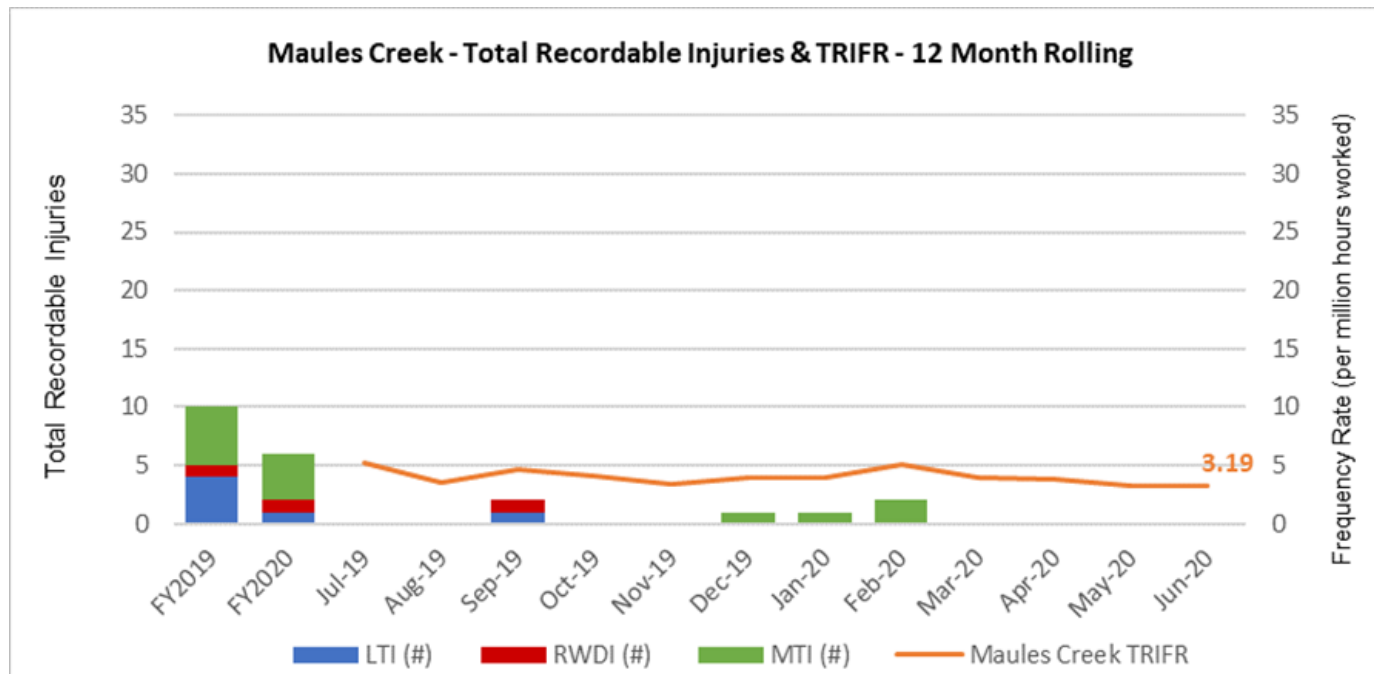
AUGUST 2020





# Company Report & Overview of Activities

- FY21 target production ~12 Mtpa ROM (Run of Mine) coal.
- June 2020 TRIFR (Recordable injuries per million exposure hours) 3.19.
  - Down 45% from June 2019 (TRIFR 5.84) lowest ever for Maules Creek.
  - Continued focus to improve.



# 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 boarder restrictions.

## Continuous improvement

- 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.
- There have been 20 new trainees employed from May to June, 11 were female.
- There are now 99 females employed onsite.
- Over 700 people are employed on site.

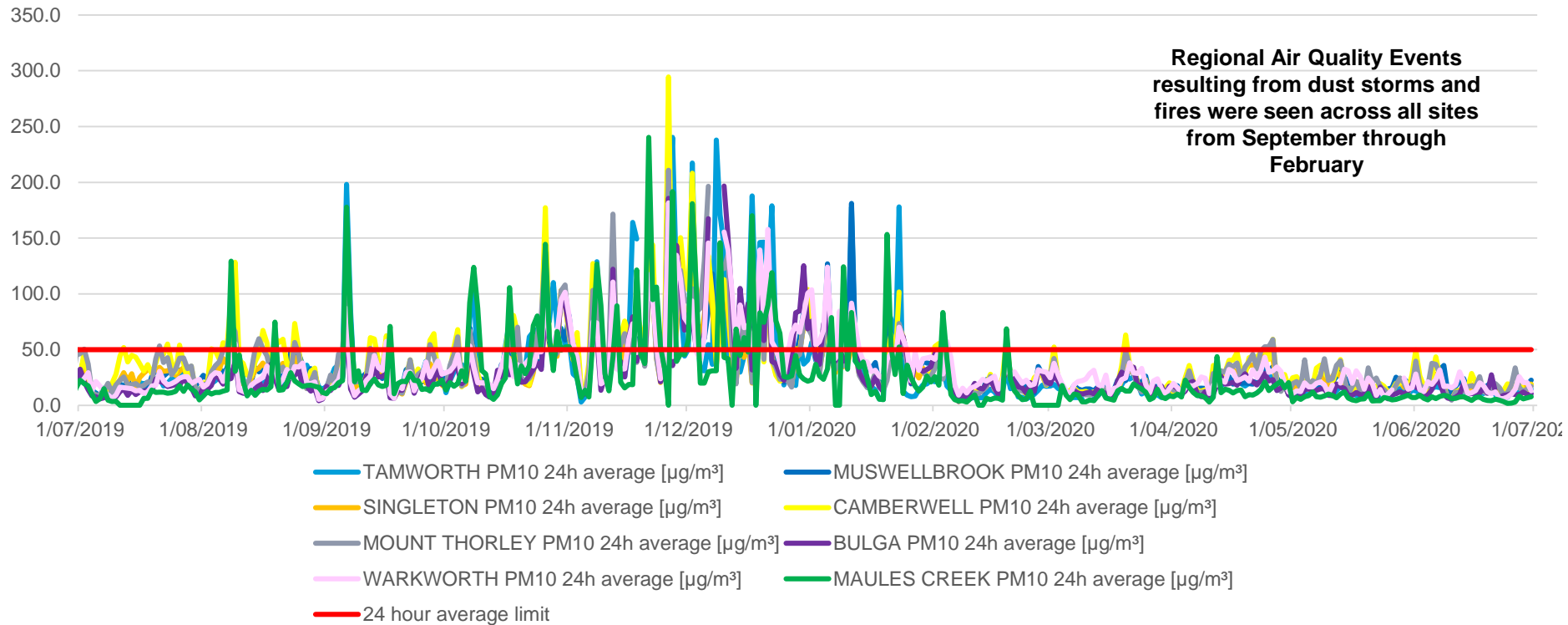
# Air quality management

- Publically available results of TEOM1 available on the EPA website. Annual rolling average for TEOM 1 is 26.9 ug/m<sup>3</sup> at 30 June 2020 (criteria 30ug/m<sup>3</sup>).
- Ongoing dust suppressant application across the operation.
- Progressive overburden emplacement and bulk shaping on the northern dump, with top soil spreading and seeding in progress.



# Air Quality Monitoring July 2020 – June 2020

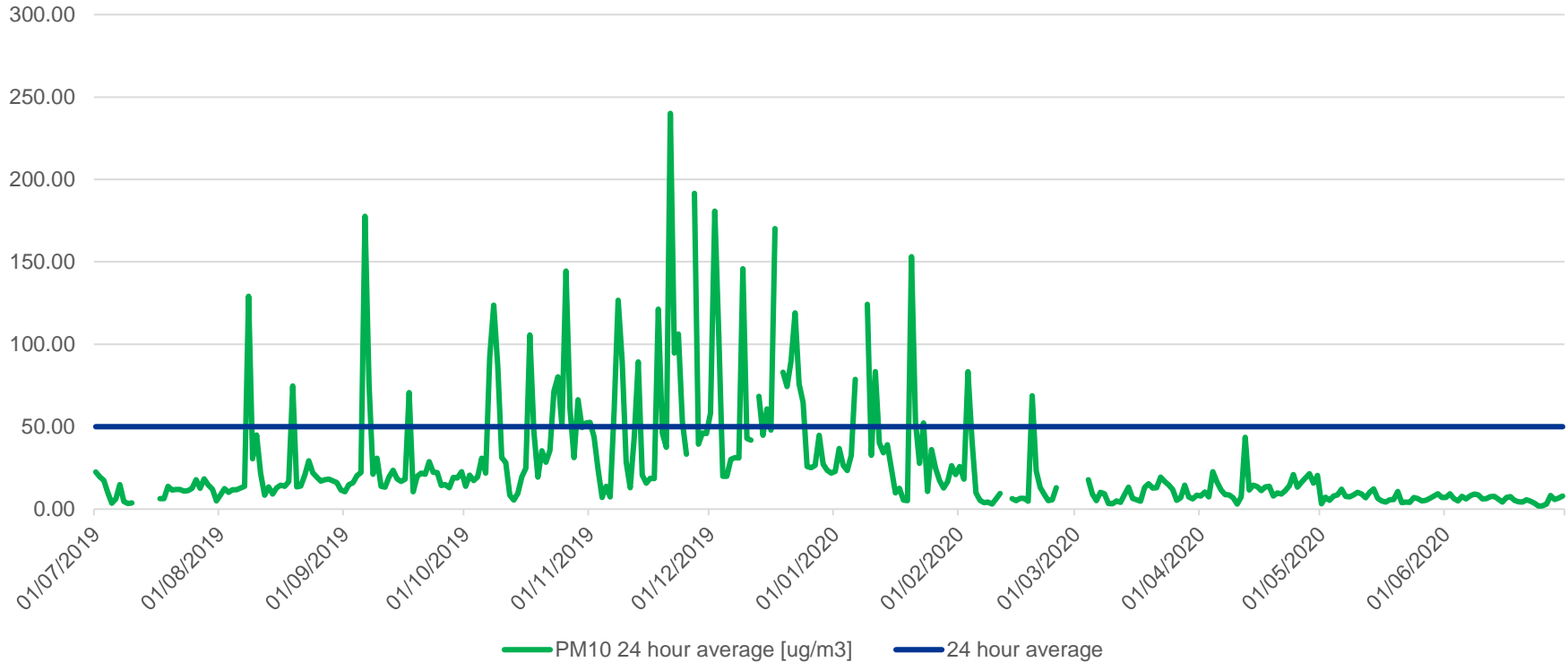
## Regional air quality PM10 comparison



2019 - 2020	TAMWORTH PM10	MUSWELLBROOK PM10	SINGLETON PM10	CAMBERWELL PM10	MOUNT THORLEY PM10	BULGA PM10	WARKWORTH PM10	MAULES CREEK PM10
Annual Average	32	33	30	38	34	28	34	27
Max 24hr Ave	240	231	206	294	211	197	182	240

# Air Quality Monitoring July 2019 – June 2020

## AQ Maules Creek TEOM1 PM10



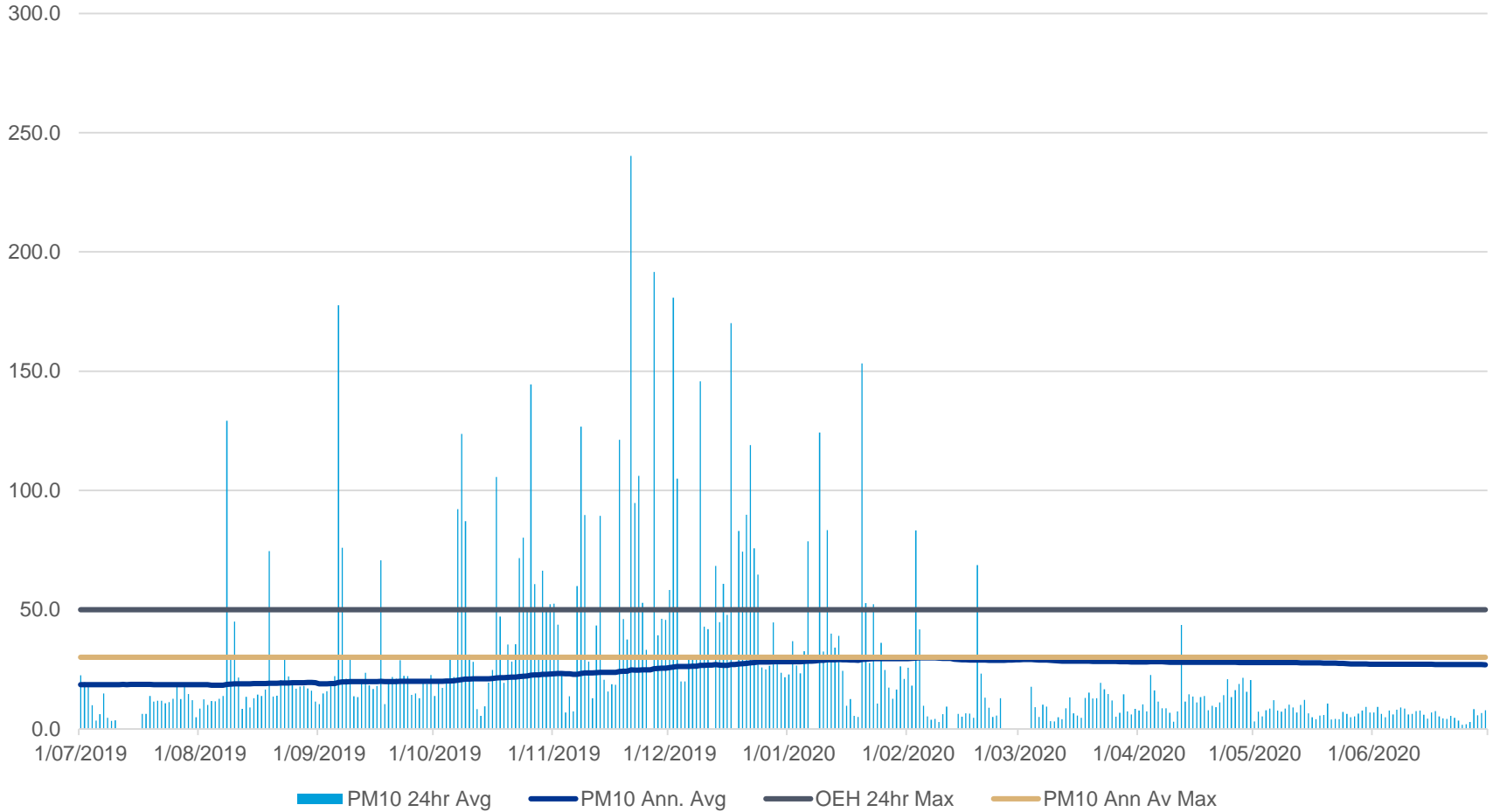
Annual rolling average for TEOM 1 is **26.9 ug/m3** at 30 June 2020 (criteria 30ug/m3). There were zero spikes above 50ug/m3 during Q2 of 2020.

# Monitoring and Environmental Results

- Monitoring and environmental results provided within the distributed information pack

# TEOM PM10 Results

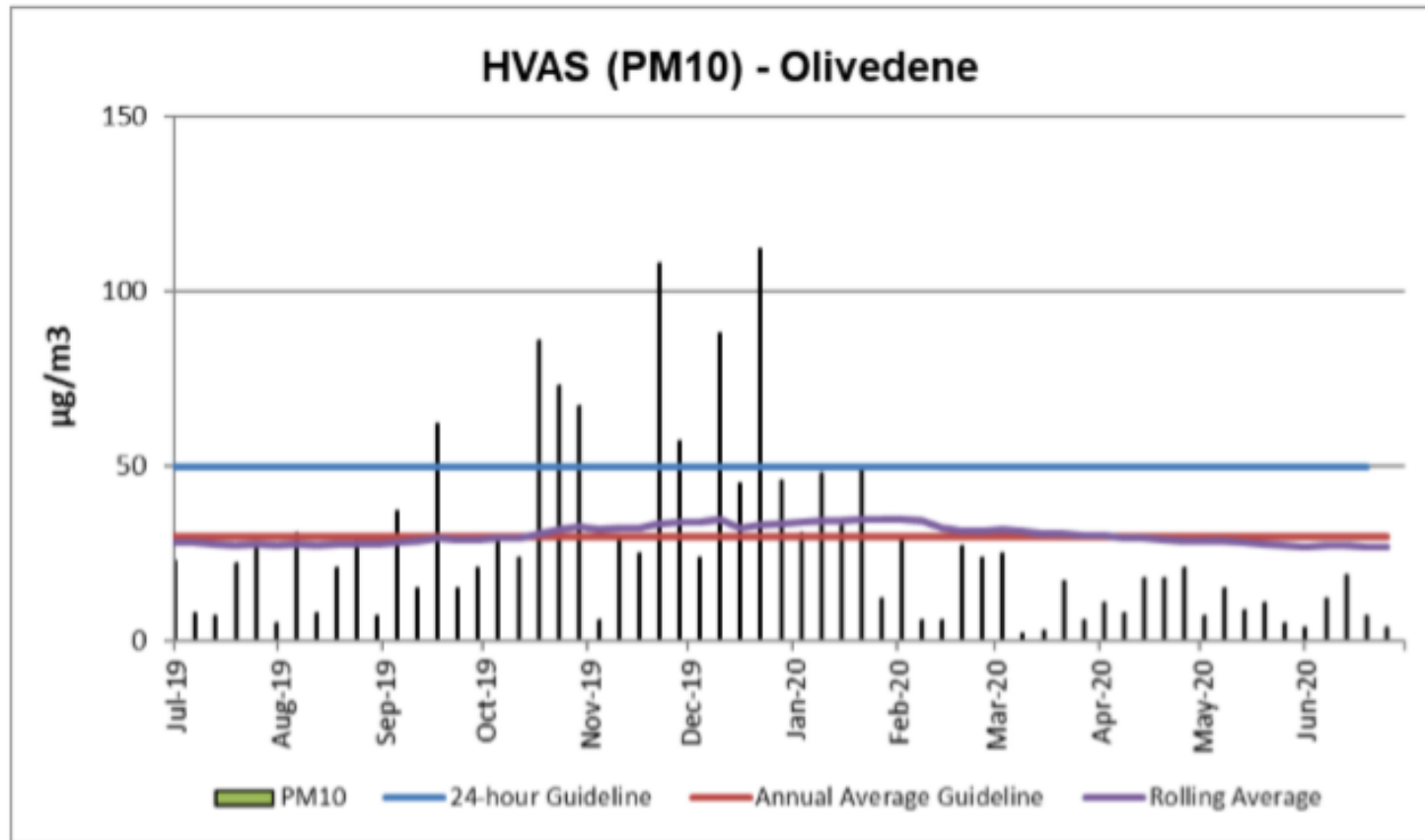
## Maules Creek Coal Mine - TEOM 1 Results



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



# High Volume Air Sampling (HVAS)



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

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# Groundwater monitoring

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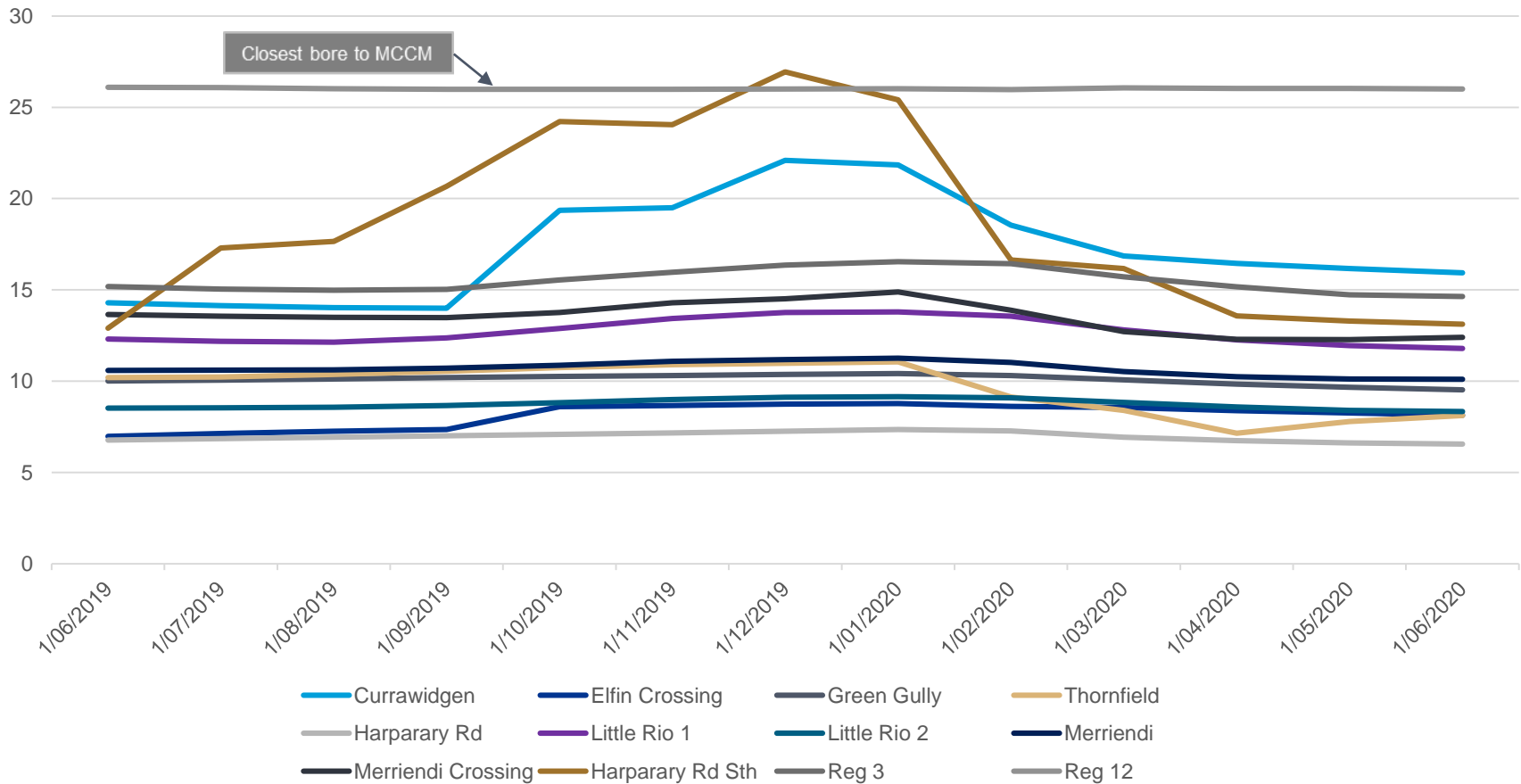


# Monitoring Locations



# Groundwater levels

GW Bores SWL Comparison

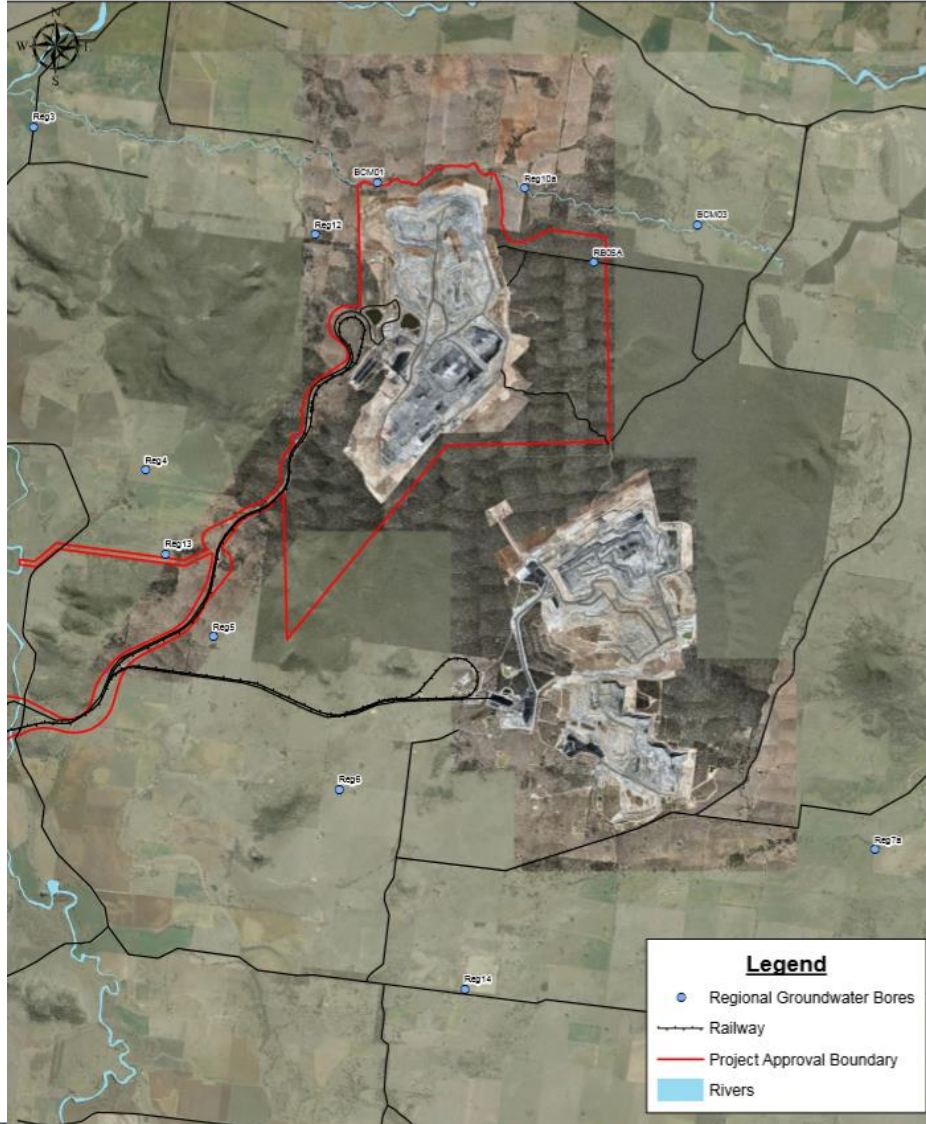


\* Note Reg12 and Reg3 both within Boggabri Volcanics

Source: NSW DPI- Water & MCCM monitoring data

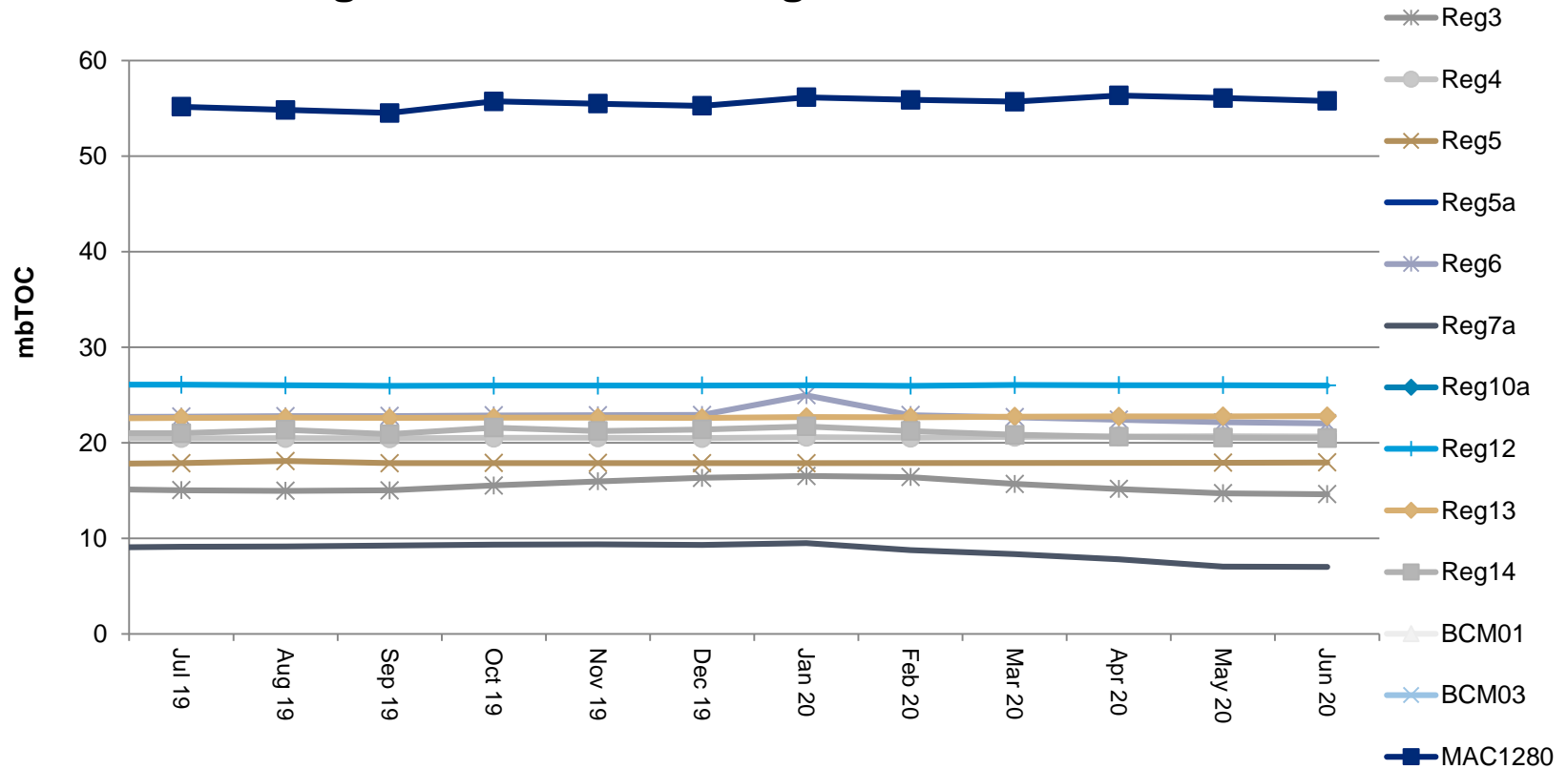


# Standing water levels



# Standing water levels

## Regional GW - Standing Water Level June 2020



# Biodiversity Management

## Feral Animal Management

- During the most recent routine Whitehaven Offset Area Feral Animal Control program (June 2020) the results included:
  - 56 out of total 100 pigs trapped were from the Maules Creek/Boggabri area (very wet); and
  - 142 out of total 286 baits (1080) taken were from the Maules Creek/Boggabri area.

## Revegetation

- Undertaken tree planting on Kelso, Velyama, Louenville and Onavale Offsets;

## Fire Management

- Continued fire break maintenance program;
- Preparation work for ecological burn program.

## Monitoring

- Redundant Infrastructure Removal ongoing now that former internal fences have been removed from Maules Offset;
- Demarcation fencing for Maules Offset Areas ongoing as well as annual inspection of Heritage and Threaten Flora fenced areas.

# Biodiversity Management

## Upcoming works:

- Feral Animal Monitoring and Control Program in August and September 2020;
- Ongoing Biodiversity Tree Planting Program 2020;
- Ongoing Fire Break Track Maintenance Program;
- Winter Bird and Spring Flora 2020 Monitoring;
- Undertake ecological burn program August 2020;
- Ongoing Derelict Infrastructure Removal.



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# AHS Production to Date

As of June 30 2020

- **Six (6) EH5000s** are now operating autonomously 24/7.
- **One Ex3600** loading the autonomous fleet.
- **ANC Fleet** equipped and working with AHTs.
- **6,500** loads hauled autonomous.
- **>850,000** cubic metres of waste moved.
- **140** personnel trained to work with AHS so far.



# Community

- Whitehaven continues to support the local Community with donations and sponsorships. However due to Covid-19 social distancing many events have been postponed or cancelled and requests for support have been fewer.
- Where opportunities become available Whitehaven will continue to support the local community through this time.
- More information on Sponsorships and Donations can be found at:  
<https://whitehavencoal.com.au/sustainability/community/donations-sponsorships/>
- Complaints details – on the website.

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# Maules Creek Coal Mine – Landform Modification

Briefing for the MCCM Community  
Consultative Committee – August 2020





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# Agenda

1. The Proposed Modification
2. Assessments of Potential Environmental Impacts
3. Rehabilitation and Final Landform
4. Modification Application
5. Consultation

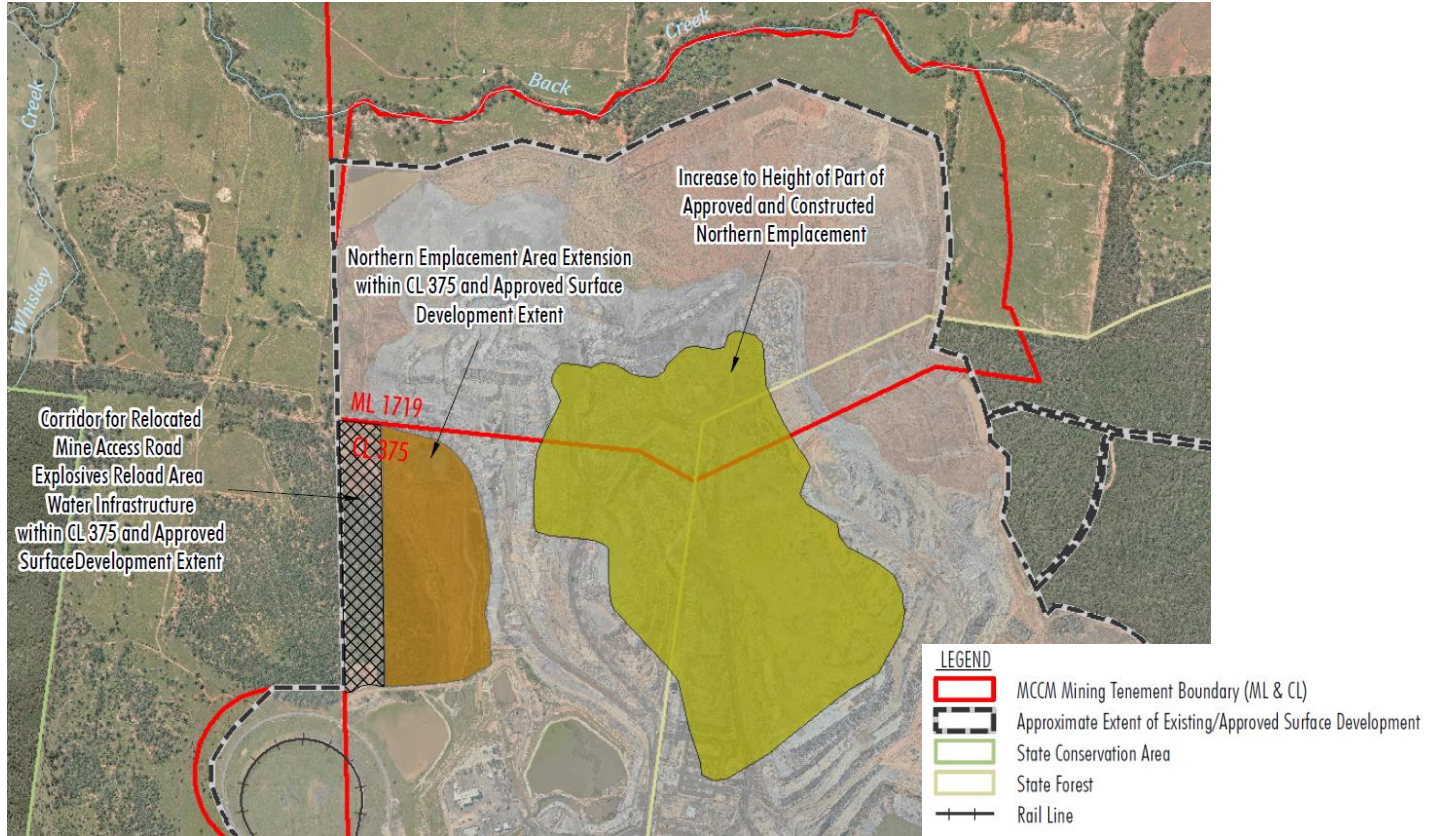


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# The Proposed Modification

- Waste rock is currently dumped both in-pit and ex-pit at MCCM. Over the next three years MCCM will transition away from majority ex-pit to a fully in-pit operation.
- During this period it will be necessary to ensure that sufficient ex-pit dump capacity remains to maintain production at current and forecast rates, while gradually increasing the percentage of in-pit dumping.
- The additional ex-pit dump capacity would be delivered through a Modification that proposes to:
  - Extend the footprint of the Northern Emplacement within a part of CL 375 that is approved for infrastructure development.
  - Increase the height of a section of the approved and constructed Northern Emplacement from the currently approved height (generally 430 mRL with a maximum of 438 mRL) to an average height of 439 mRL with localised higher points to incorporate macro- and micro-relief.
- To accommodate the footprint extension, water management infrastructure, topsoil stockpiles, an explosives reload area and access roads would be relocated within the western boundary of CL 375 in an area that is approved for infrastructure development.

# The Proposed Modification



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# The Proposed Modification

- There would be no change to the following components of the MCCM:
  - Mine tenements.
  - Approved surface development extent.
  - Mining method, operating hours and life of mine.
  - Approved open cut footprint (i.e. no surface extension to or change in depth of the open cut).
  - ROM coal production rate, total volume of coal produced over the life of mine, and mining fleet.
  - Make-up surface water and groundwater demand.
  - Employment.

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# Specialist Environmental Assessments

- The proposed scope of the environmental assessment includes:
  - an assessment of the potential air quality impacts by Todoroski Air Sciences.
  - an assessment of the potential noise impacts by Wilkinson Murray.
  - an assessment of the potential surface water resource impacts by WRM Water & Environment.
- Preliminary results indicate that the predicted noise levels from the Landform Modification would comply with the relevant criteria with the implementation of current operational noise mitigation practice.
- Preliminary results indicate that the Landform Modification would comply with all relevant air quality assessment criteria at all privately-owned receivers.



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# Rehabilitation and Final Landform

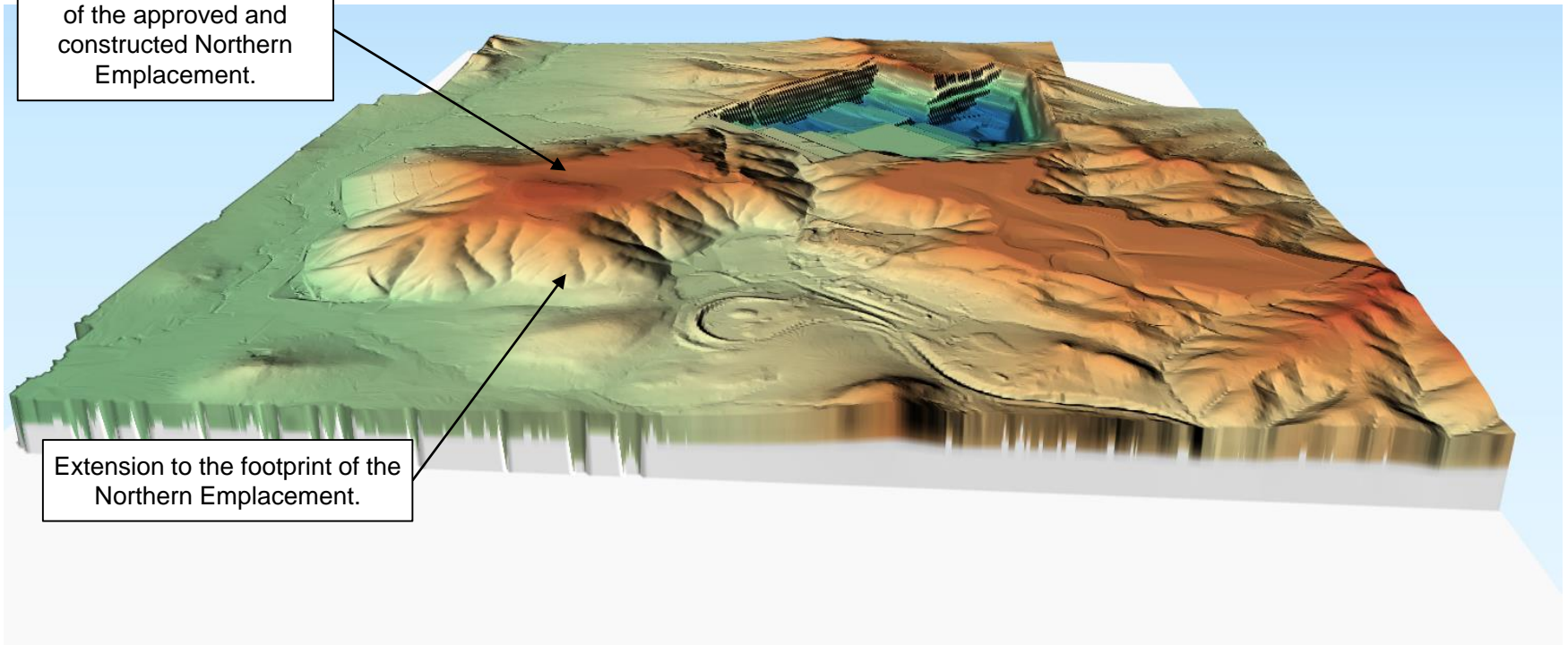
- The Modification Report will include a description of the final landform design by Golder Associates, which introduces macro- and micro-relief (i.e. gently undulating surfaces) to:
  - replicate natural drainage systems;
  - improve integration with the surrounding environment; and
  - minimise the final void catchment as far as is reasonable and feasible.
- The design is a continuation of existing rehabilitation at MCCM
- Visual simulations of the proposed modified landform will also be prepared.



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# Rehabilitation and Final Landform

Height increase to section of the approved and constructed Northern Emplacement.



Extension to the footprint of the Northern Emplacement.

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# Modification Application

- MCCM is preparing a Modification Report to address the potential environmental impacts of the Modification.
- The Modification Report will include:
  - a description of the existing MCCM operation and the Modification.
  - a summary of the stakeholder consultation undertaken and the key issues raised.
  - assessment of the potential environmental impacts of the Modification, and the measures that could be implemented to avoid, mitigate, rehabilitate, monitor or offset the potential impacts.
- A Modification application under section 4.55(2) of the EP&A Act is proposed.
- It is proposed to lodge the Modification application in September 2020.

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# Consultation

- MCCM has briefed the Narrabri Shire Council and has commenced consultation with nearby landholders.
- MCCM has also briefed the NSW Department of Planning, Industry and Environment (DPIE) – Planning and Assessment, the NSW Resources Regulator, and the Environment Protection Authority (EPA).
- DPIE – Water (formerly the Office of Water) will be consulted.
- The DPIE has indicated the Modification will go on public exhibition.

# Next meeting –

Oct 2020

SR 17 Narrabri 35

17 Maules Ck SR 11 Boggabri 18



**THANK YOU**

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





# Maules Creek Coal Mine Community Consultative Committee Meeting #30

## Environmental Monitoring Report For the Q2 period, April – June 2020

### Attended Noise Monitoring

Attended noise monitoring was undertaken at six locations during April, May and June 2020 by an independent acoustic consultant. The measured noise level ( $L_{Aeq, 15\text{ minute}}$ ) attributed to Maules Creek Coal Mine (MCCM) and applicable criteria for each location are shown in the tables below.

### **LAeq, 15minute GENERATED BY MCCM AGAINST OPERATIONAL NIGHT NOISE CRITERIA – APRIL TO JUNE 2020.**

**Table 1 - April 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	01/04/2020 22:30	0.4	0.0	35	Yes	39	4
NM1	01/04/2020 23:13	0.4	0.0	35	Yes	IA	Nil
NM2	02/04/2020 00:03	0.2	0.0	39	Yes	<20	Nil
NM3	01/04/2020 23:30	0.2	0.0	35	Yes	IA	Nil
NM4	01/04/2020 23:41	0.1	0.0	35	Yes	IA	Nil
NM5	01/04/2020 22:00	0.2	0.0	35	Yes	IA	Nil
NM6	01/04/2020 23:56	0.3	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 <sup>1</sup>	MCCP LAeq dB <sup>2</sup>	Exceedance dB <sup>3</sup>
NM1	14/05/2020 22:30	3.2	0.0	35	No	IA	NA
NM2	14/05/2020 23:30	2.6	0.0	39	Yes	<30	Nil
NM3	14/05/2020 23:30	2.6	0.0	35	Yes	<25	Nil
NM4	14/05/2020 23:01	2.7	0.0	35	Yes	<20	Nil
NM5	14/05/2020 22:00	3.6	0.0	35	No	IA	NA
NM6	15/05/2020 00:01	1.8	0.0	35	Yes	IA	Nil

**Table 3 - June 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	03/06/2020 22:30	0.6	0.0	35	Yes	<25	Nil
NM2	03/06/2020 23:30	0.1	0.0	39	Yes	28	Nil
NM3	03/06/2020 23:39	0.1	0.0	35	Yes	<25	Nil
NM4	03/06/2020 23:00	0.3	0.0	35	Yes	<20	Nil
NM5	03/06/2020 22:00	0.3	0.0	35	Yes	IA	Nil
NM6	03/06/2020 23:59	0.1	0.0	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 LAeq 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 one measurement 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 Q1 2020.

**LA1, 1minute GENERATED BY MCC AGAINST OPERATIONAL NIGHT NOISE CRITERIA – APRIL TO JUNE 2020.**

**Table 4 - April 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	01/04/2020 22:30	0.4	0.0	45	Yes	39	Nil
NM1	01/04/2020 23:13	0.4	0.0	45	Yes	IA	Nil
NM2	02/04/2020 00:03	0.2	0.0	45	Yes	<20	Nil
NM3	01/04/2020 23:30	0.2	0.0	45	Yes	IA	Nil
NM4	01/04/2020 23:41	0.1	0.0	45	Yes	IA	Nil
NM5	01/04/2020 22:00	0.2	0.0	45	Yes	IA	Nil
NM6	01/04/2020 23:56	0.3	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 <sup>1</sup>	MCCP LA1,1min dB <sup>2</sup>	Exceedance dB <sup>3</sup>
NM1	14/05/2020 22:30	3.2	0.0	45	No	IA	NA
NM2	14/05/2020 23:30	2.6	0.0	45	Yes	38	Nil
NM3	14/05/2020 23:30	2.6	0.0	45	Yes	<25	Nil
NM4	14/05/2020 23:01	2.7	0.0	45	Yes	<20	Nil
NM5	14/05/2020 22:00	3.6	0.0	45	No	IA	NA
NM6	15/05/2020 00:01	1.8	0.0	45	Yes	IA	Nil

**Table 6 - June 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	03/06/2020 22:30	0.6	0.0	45	Yes	27	Nil
NM2	03/06/2020 23:30	0.1	0.0	45	Yes	39	Nil
NM3	03/06/2020 23:39	0.1	0.0	45	Yes	27	Nil
NM4	03/06/2020 23:00	0.3	0.0	45	Yes	<20	Nil
NM5	03/06/2020 22:00	0.3	0.0	45	Yes	IA	Nil
NM6	03/06/2020 23:59	0.1	0.0	45	Yes	NM	Nil

Notes:

- Noise emission limits do not apply during periods of rainfall or wind speeds greater than 3 metres per second (at 10 metres);
  - Estimated or measured LAeq,15minute attributed to MCCM;
  - Estimated or measured LA1,1minute attributed to MCCM;
  - 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	N
May	SE
June	SE

### Blast Monitoring

There were 28 blasts at MCCM during Q2 2020. 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 2020**

Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Noise	dB (Lin Peak)	All	28	96.7	115.3	120	No
Vibration	mm/s		28	0.16	0.53	10	No

**Air Quality**

**Total Depositional Dust**

The 12 monthly rolling annual average remains below the relevant Project Approval criteria of 4g/m<sup>2</sup>/month for the respective monitoring points except for at MC4 as shown in the below graph.

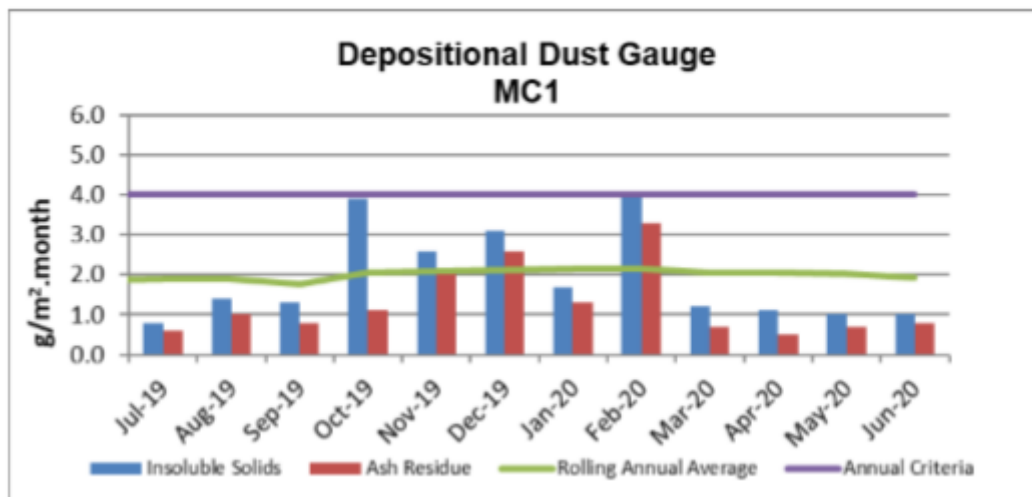
Whilst MC4 was above the 12 month rolling average this was however attributed to a highly contaminated sample during the bushfires and dust storms in October 2019.

May-20 saw MC4 to be excessively contaminated with insoluble solids (i.e. bird droppings, insects and vegetation).

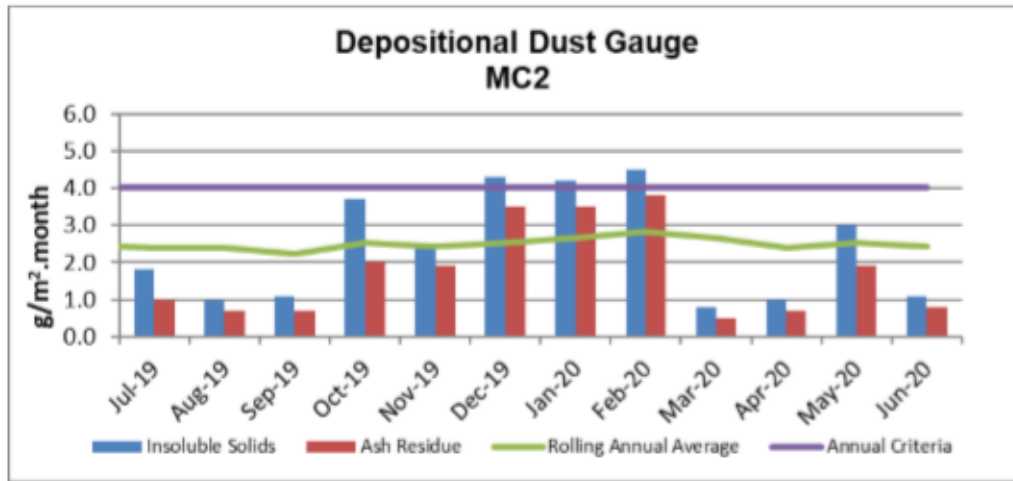
**Table 9 – Deposited Dust Gauge Results**

[g/m<sup>2</sup>/month]

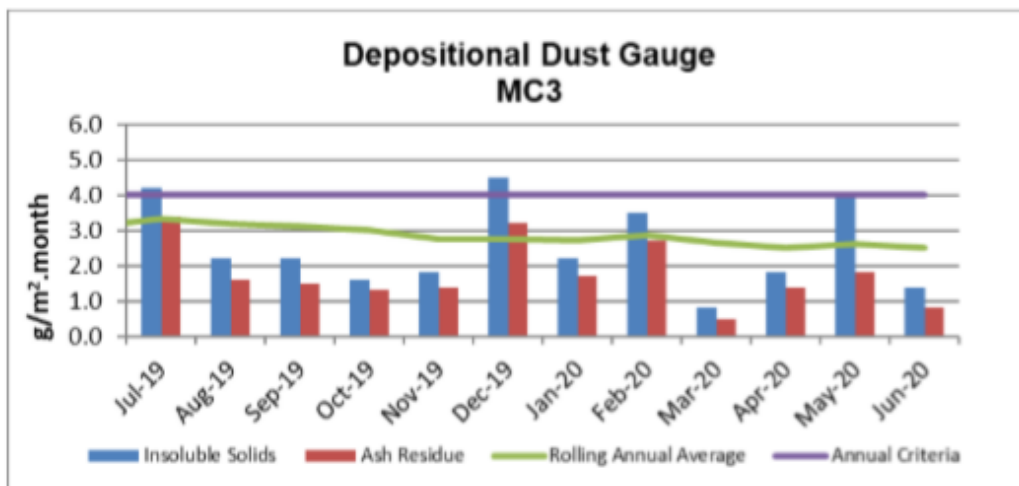
MONTH	MC1	MC2	MC3	MC4
April -20	1.1	1.0	1.8	1.6
May-20	1.0	3.0	4.0	8.4
June-20	1.0	1.1	1.4	2.4
<b>12 MONTH ROLLING AVERAGE</b>	1.9	2.4	2.5	<b>7.7</b>



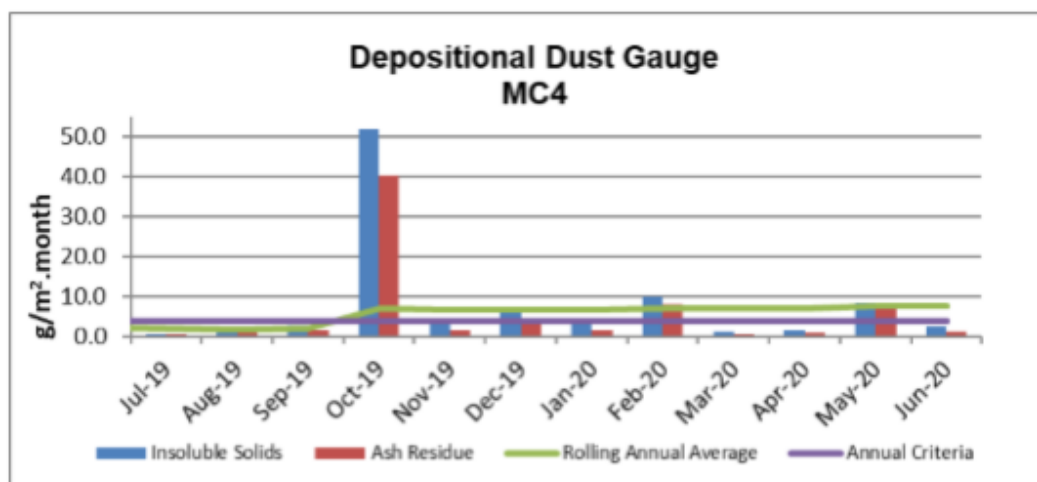
\* Blank cells indicate sample periods where the sample has been contaminated and excluded from the results tables due to contaminated material (insect larvae, bird droppings, vegetation etc.).



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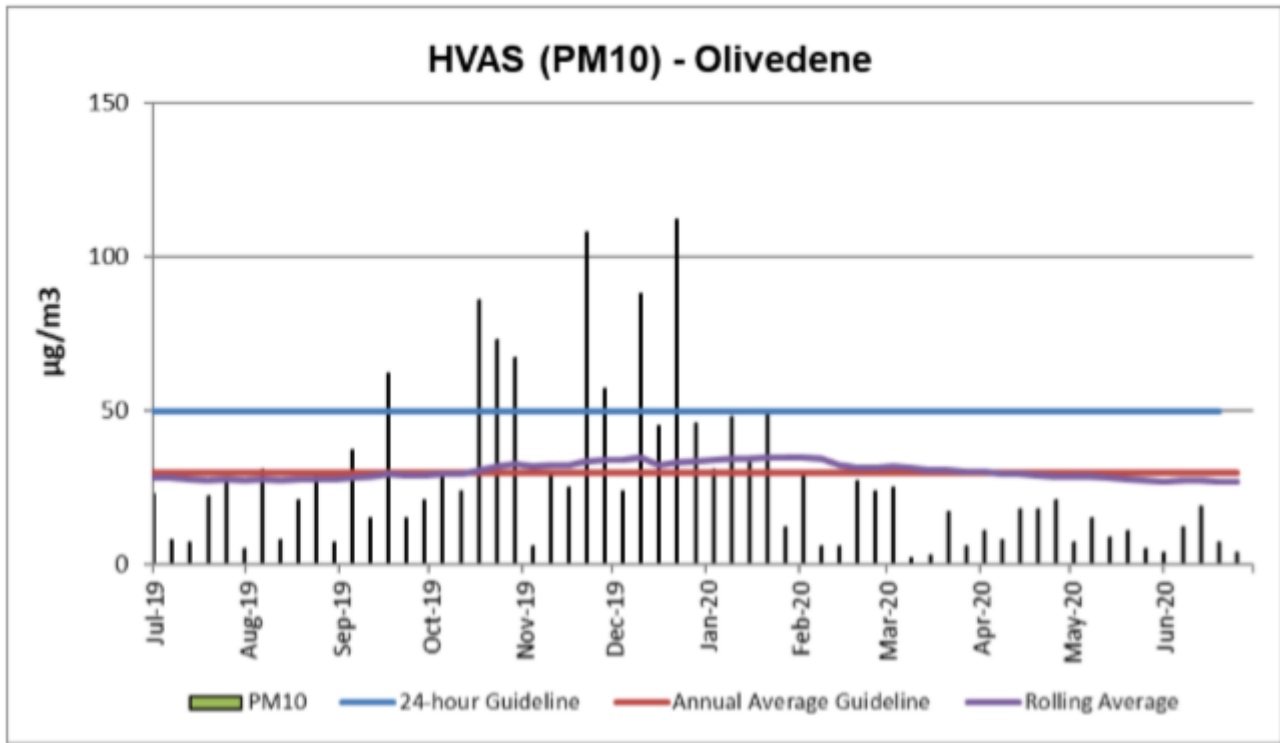


\* Blank cells indicate sample periods where the sample has been contaminated and excluded from the results tables due to contaminated material (insect larvae, bird droppings, vegetation etc.).

### High Volume Air Sampling (HVAS)

The HVAS monitor is located on the property 'Olivedene,' a mine owned property on Therribri Road. During 2020 there have been no exceedances of the 24 hour average of 50  $\mu\text{g}/\text{m}^3$ .

HVAS  $\text{PM}_{10}$  Rolling Annual Average during Q2 2020 is 27  $\mu\text{g}/\text{m}^3$ , which is below the Annual Average Guideline of 30  $\mu\text{g}/\text{m}^3$ .

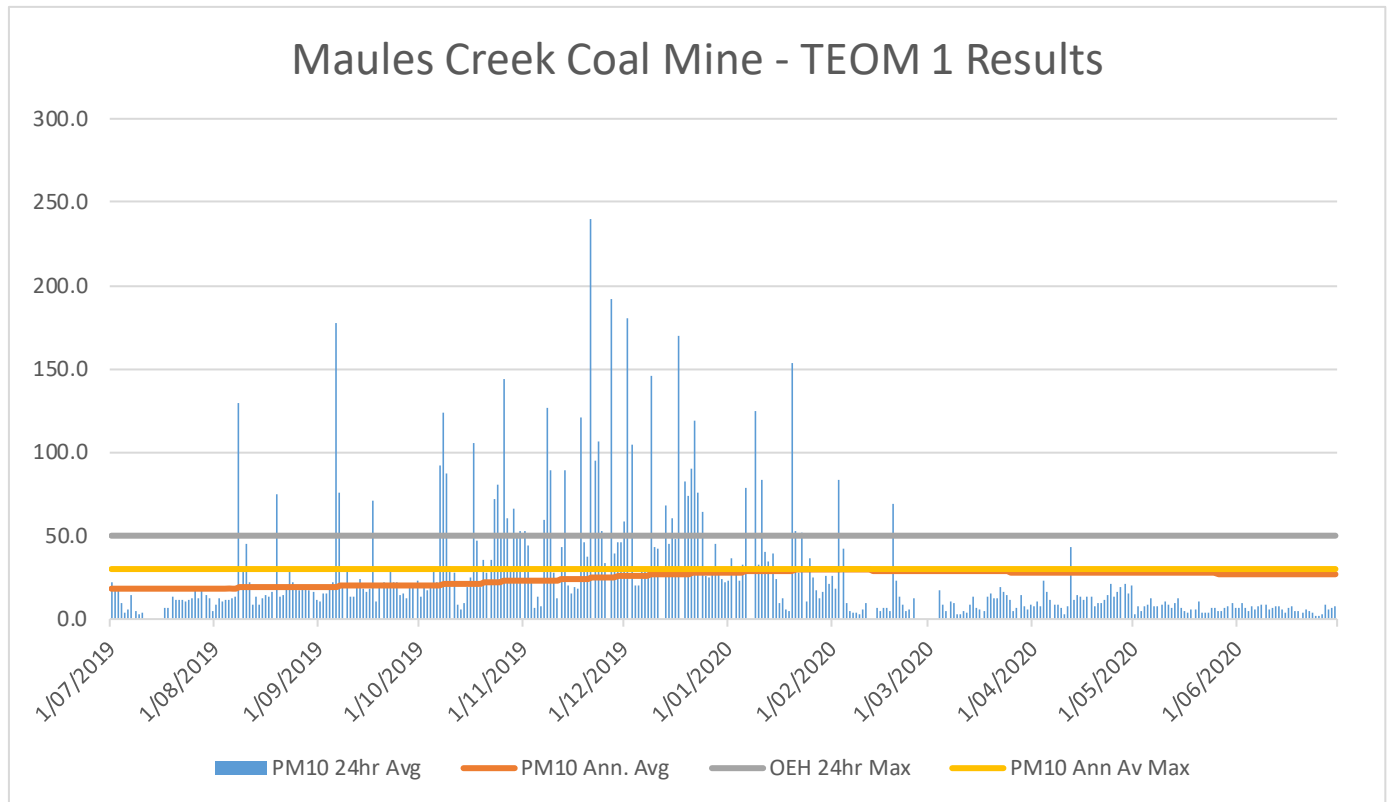


\* Exceedances recorded in September, October, November and December were attributed to the regional events and discussed at the August and October 2019 meetings.

### TEOM - PM<sub>10</sub> Results

The annual average for PM<sub>10</sub> at the Maules Creek Coal TEOM is **26.9 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 Q2.

### TEOM Result Figures – Particulate Matter PM<sub>10µg/m<sup>3</sup></sub>



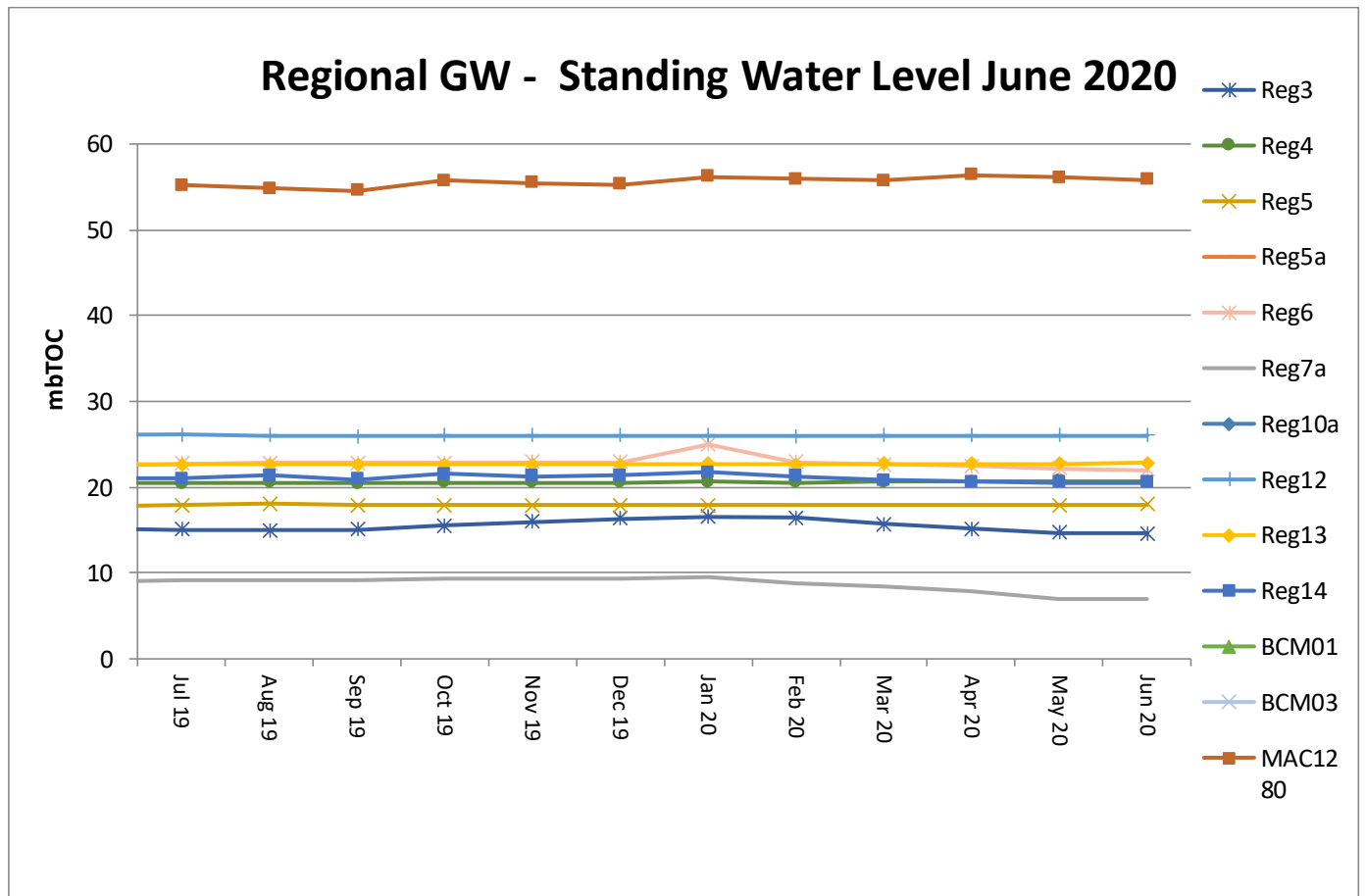
\* Blank columns indicate sample periods where there was either power outage, maintenance or other related causes.

\*\* 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**

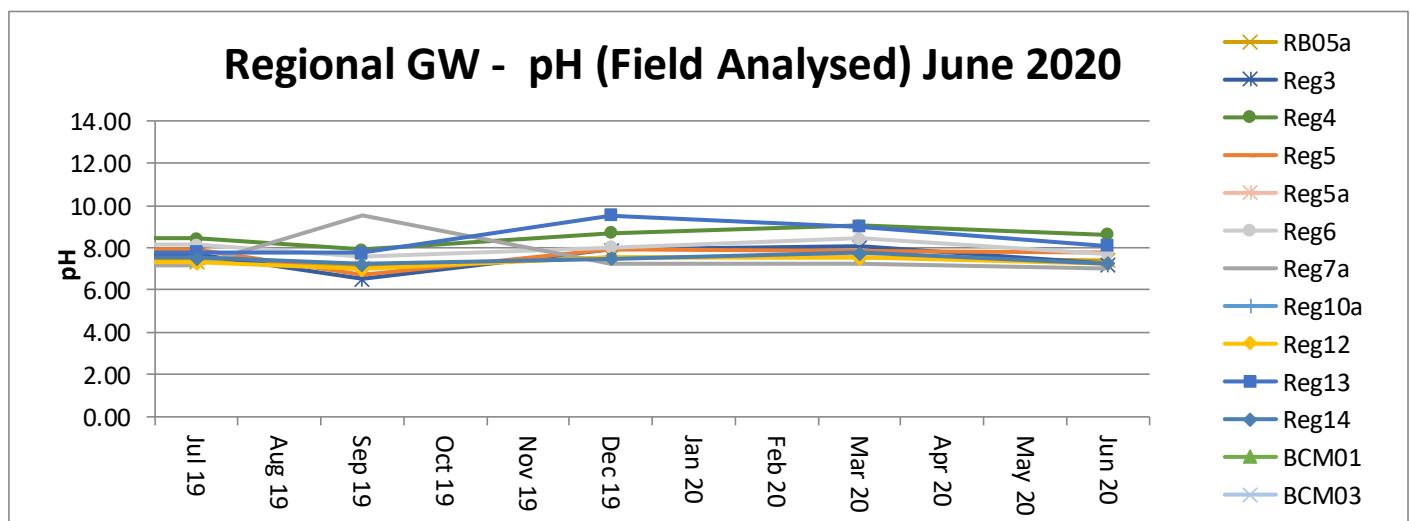
**Groundwater**

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.



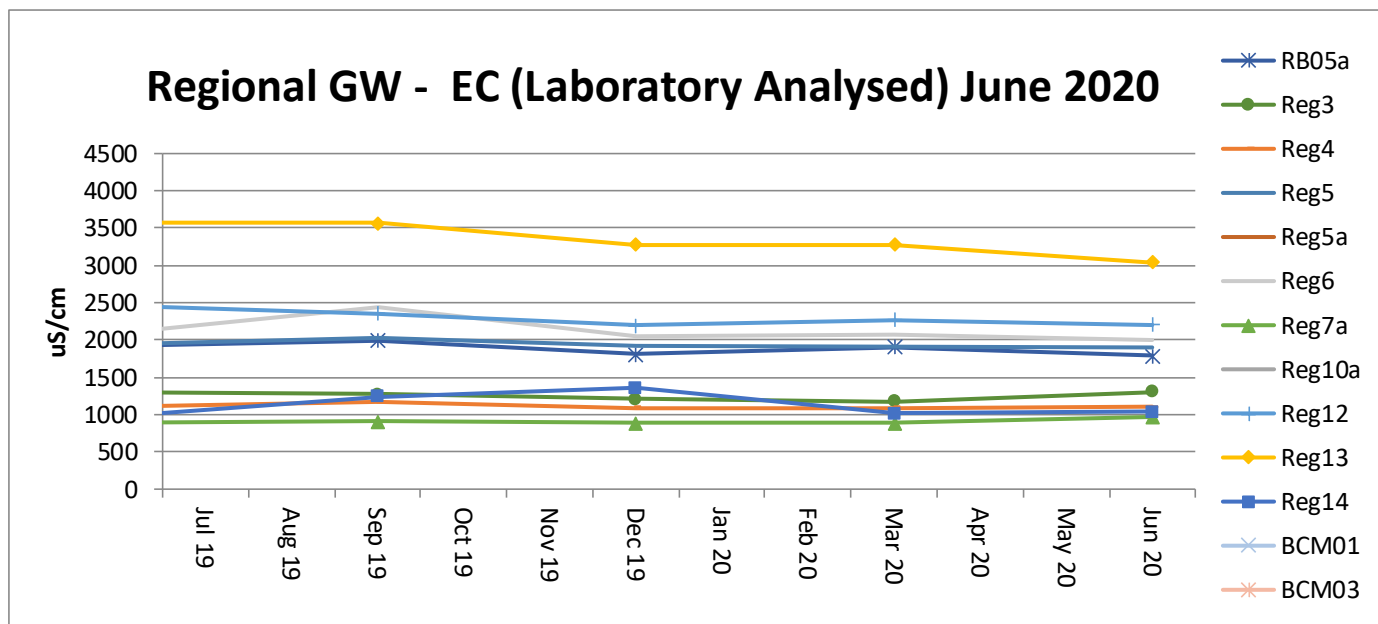
**Acidity / Alkalinity (pH)**

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  $\mu\text{s}/\text{cm}$  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.

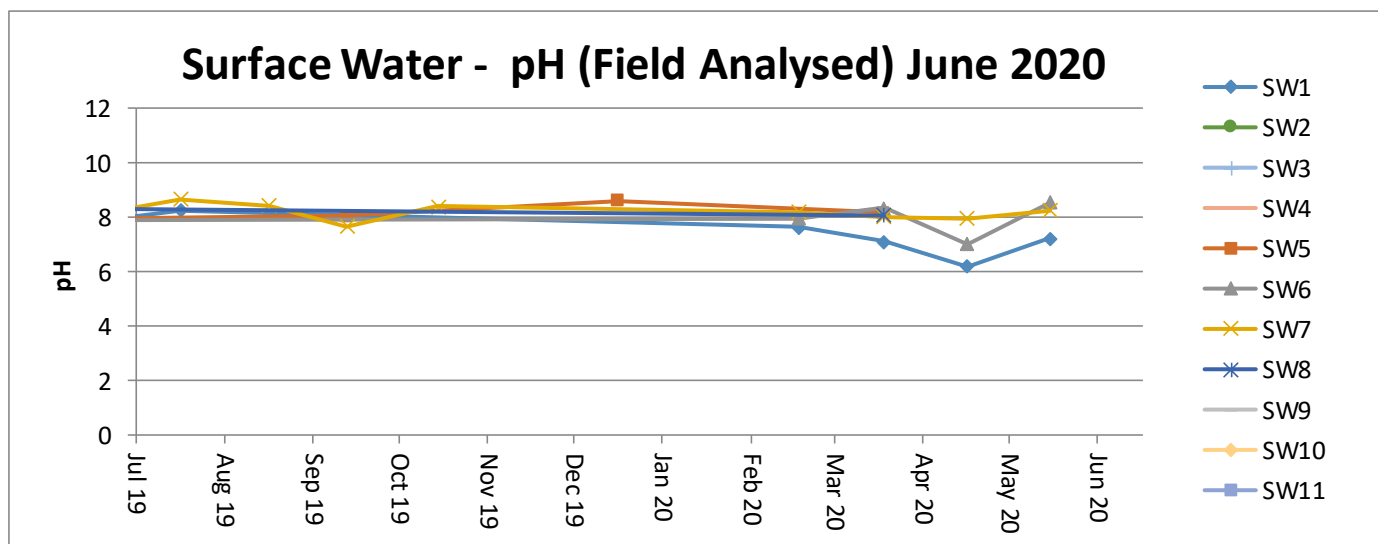


### Surface Water – Creeks and Rivers

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 11 surface water monitoring points, however only five were able to be sampled during the twelve month period.

#### 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.

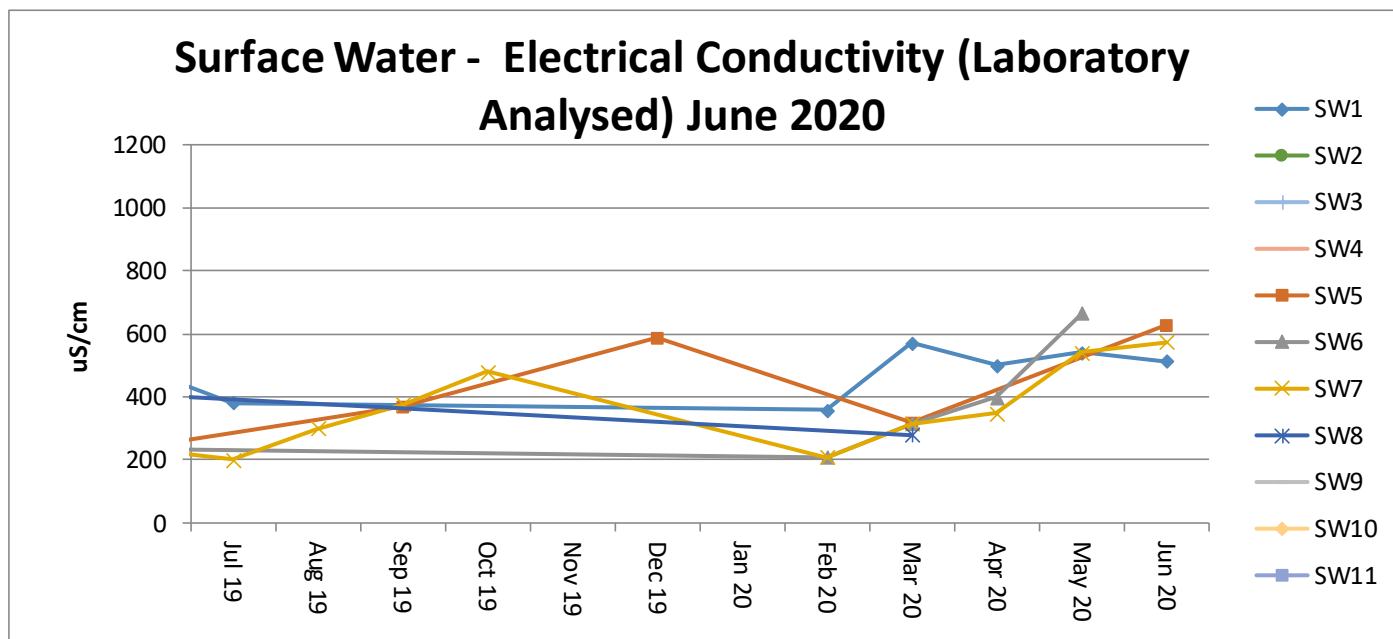


\*0 values indicate no water to sample due to the creek being dry



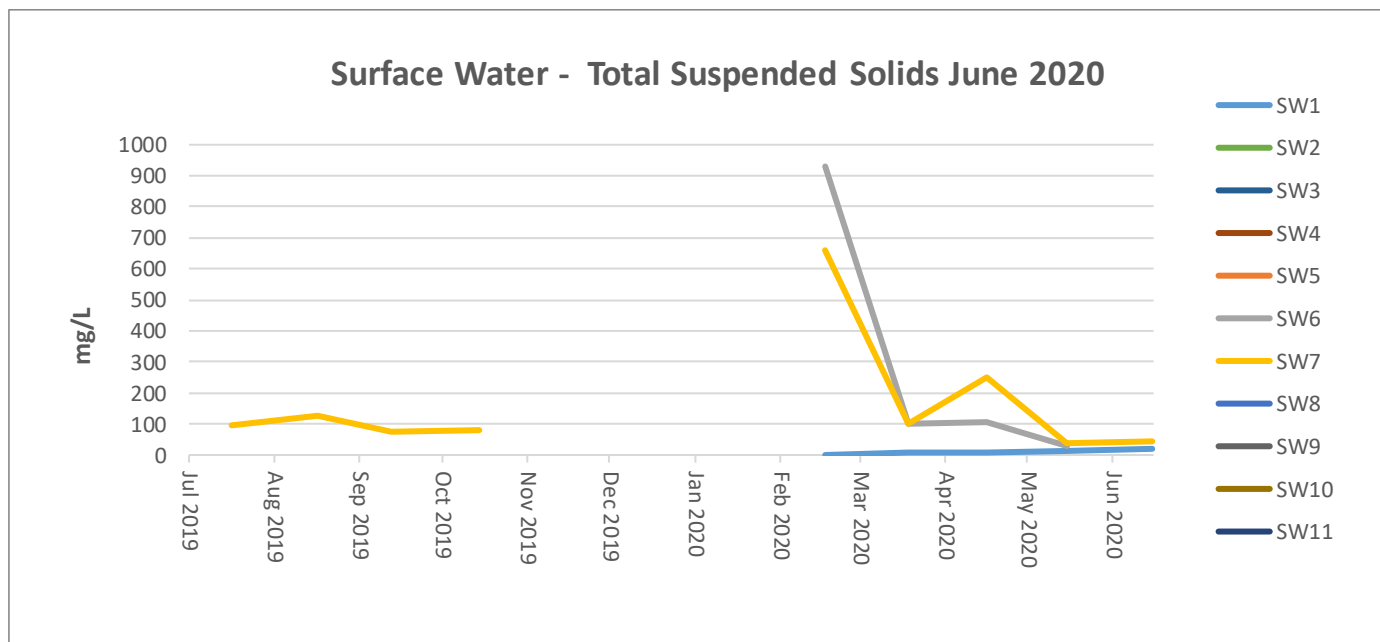
### Electrical Conductivity

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.



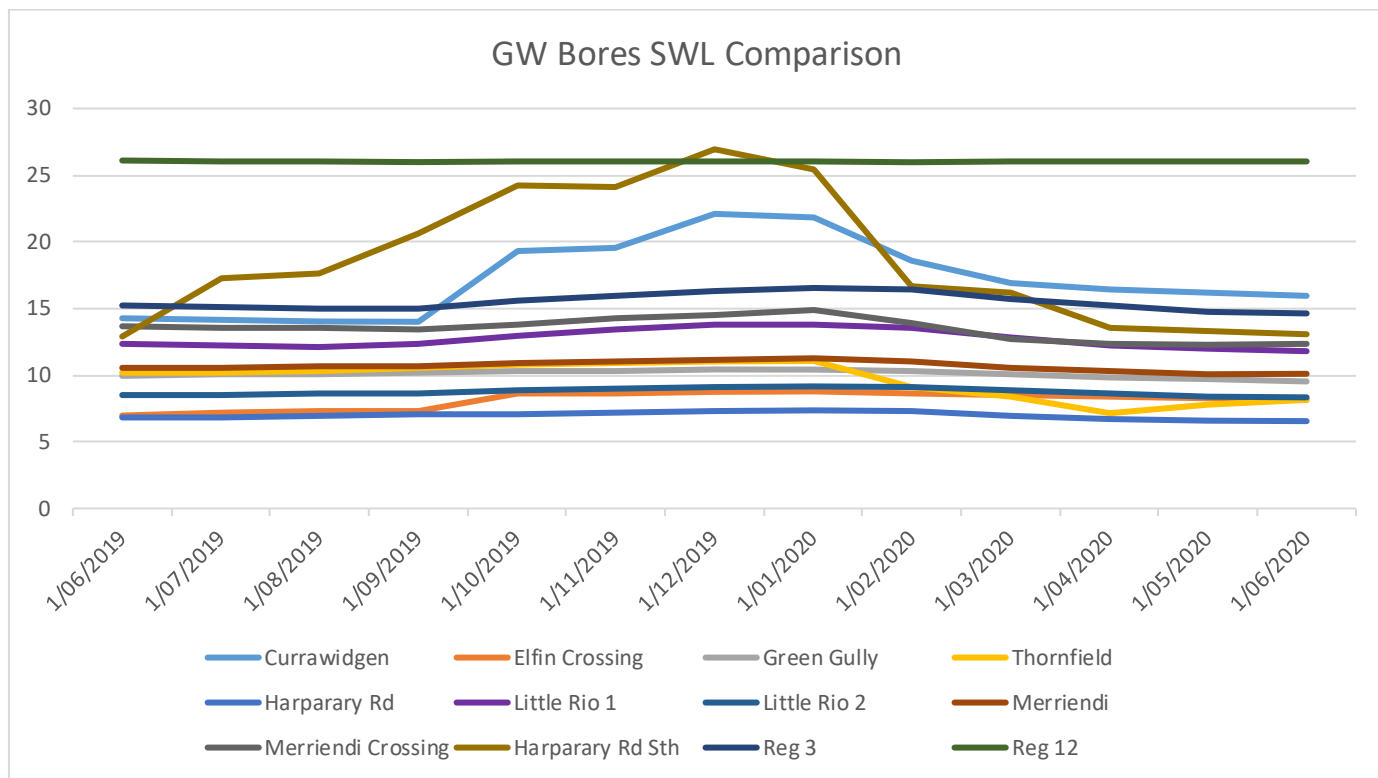
### Total Suspended Solids (TSS)

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 Q1 due to significant rainfall events.



**Regional Groundwater monitoring**

Maules Creek Coal Mine monitors regional bores across the region.



**Rehabilitation**

Rehabilitation works are ongoing, bulk reshape and topsoiling is currently being completed.

**Feral Animal Management**

During the most recent routine Whitehaven Offset Area Feral Animal Control program (June 2020) the results included:

- 56 out of total 100 pigs trapped were from the Maules Creek/Boggabri area; and
- 142 out of a total 286 fox baits (1080) taken were from the Maules/Boggabri area.

**Revegetation**

- Undertaken tree planting on Kelso, Velyama, Louenville and Onavale Offsets.

**Fire Management**

- Continued fire break maintenance program.
- Preparation work for ecological burn program.

### **Community Complaints**

- 2 complaints were received during Q2 CY2020. Please refer to the Community Complaints Register on the Whitehaven Coal Maules Creek website.

### **Monitoring**

- Redundant Infrastructure Removal ongoing now that former internal fences have been removed from Maules Offset;
- Demarcation fencing for Maules Offset Areas ongoing as well as annual inspection of Heritage and Threaten Flora fenced areas.