

Notes: Notes of the 28th Meeting of the Maules Creek Coal Community Consultative Committee **Wednesday 19 February 2020**
Site Visit, Held at Maules Creek Coal Mine

Members Present: Andrew Garratt (AG) – WHC, 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, Lyndell Crowley (LC) – Boggabri Business & Community Progress Association, Roselyn Druce (RD) – Boggabri Coal CCC, Ross Wilson (RW) – WHC, Simmone Moodie (SMo) – Community Aboriginal Representative, Steve Eather (SE) – Community Representative

Apologies: David Paull (DP) – Sustainable Living Armidale (SLA).

Independent Chair: David Ross (DR)

Independent Secretary:

Debbie Corlet (DC)

Agenda Items	Who to Present
1. Apologies	DR
2. Confirmation and Discussion of the minutes of the previous meetings – Wed 30 Oct 2019	DR
3. Business arising from the previous minutes – Action List Distributed	DR
4. Site Visit	ALL
5. Next Meeting – Wednesday 13 May 2020	ALL

Agenda Item	Discussion	Action/By Whom
1.	Welcome and Apologies – David Paull. Today's meeting started with a site tour of the Maules Creek Coal Mine. Notes from the tour are below in Section 6.	
3.	Confirmation of the minutes of the previous meeting (October 2019) – The CCC endorsed the minutes as an acceptable record of what was discussed.	
6.	WHC Presentation by Darren Swain – Presentation was provided to members prior to the meeting (Attached to Meeting Notes).	
	Site Tour Notes	

	<p>The members got the opportunity to view some of the route used for the construction of the pipeline from the Brighton property. The Brighton Roma trucking operation has stopped. MCCM has approximately 25 km of pipeline, including that from Brighton and the Namoi River under licensing arrangements. Question from the community – how deep under are the pipelines. ACTION ON WHC.</p> <p>The train line shared with Boggabri Coal was highlighted to members (track going to the right goes to Boggabri Coal and to the left it goes to Maules Creek) and has four to six train movements per day.</p> <p>A question was asked whether the mine had taken water since the last CCC meeting in October 2019. It was observed that no water was taken in that period although the mine could have taken water during the embargo on the General Security Water Allocations on the 17th January as it had High Security Water Allocation – but did not. The committee were also introduced to Andrew Garratt, WHC's new General Manager – Community Engagement.</p> <p>A notable proportion of the site visit was spent viewing the trials for the Autonomous Haulage System (AHS). There are six AHS trucks in operation at present. They can't drive where they want to. Their path must be mapped for them. While they are good to go now, they are operating at 60% of our manned truck productivity. They are limited to a 48 km speed limit but generally operate at between 8-18 km. This is because of, for example, congestion or traversing hills.</p> <p>The committee then had the opportunity to oversee the site from a lookout. It was observed that Whitehaven is mining 16 seams although not all are exposed. The main seams were described, including the Braymont seam. This is the dominant seam by volume and provides premium quality thermal coal that, in comparison to coal mined in other parts of NSW, has notably fewer impurities.</p> <p>The other benefits of the coal seams at Maules Creek are that the first coal seam is very close to the surface, which is unusual in NSW, and there are consistent gaps between the seams.</p> <p>The main steps in mining were described as follows:</p> <ol style="list-style-type: none"> 1. Pre-strip: clearing and mulching 2. Topsoil stripping 3. Drilling and blasting: MCCM drill a 229 mm diameter hole to the next seam so that shot can be applied 4. Excavators are then brought in to take 80% of the waste material 5. Topside loading <p>There are about 320 staff on site at any one time with the majority in production, working two by 12.5-hour shifts.</p> <p>The site visit finished with the members getting to see:</p> <ul style="list-style-type: none"> • The pre-start room, where staff use the breathalysers and receive a briefing. 	<p>ACTION 1 – How deep are the pipelines? WHC to confirm</p>
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	<ul style="list-style-type: none"> • The OCE Room, where staff present are legally responsible for those on site; and • The Dispatch Room, where the operating trucks are managed with respect to where they are to go or where to get a load. Furthermore, staff present undertake environmental monitoring (noise and dust) ever 15 minutes. 	
8.	Next meeting date to be agreed - Next meeting Wednesday 13 May 2020 back at the Boggabri Golf Club at 2:00 pm. Rest of the meetings for 2020 will be held on Wednesday 12 August and Wednesday 28 October 2020.	

Meeting Closed: **1:00 pm**

Appendix 1: Actions

Page No	Action No	Description	Date Raised
2	1	How deep are the pipelines? WHC to confirm	19 February 2020

Appendix 2: Briefing Notes from WHC

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

Date: 19 February 2020 **Reference:** Questions MCC CCC February 2020

Subject: Responses to February 2020 MCC CCC meeting questions

No attempt has been made to correct grammar in the provided questions.

CCC Member questions regarding	Responses
Question 1. <i>When will the 2019 Annual Review be available?</i>	<p>Once the 2019 MCCM Annual Review has been completed and subsequently approved by Department of Planning, Industry and Environment it will be placed on the MCC website.</p>
Question 2. <i>How much money is being held by the NSW government for remediation of the mine site at this stage? What proportion of this is in the form of a bank guarantee? What are the rehabilitation plans should the mine go into care and maintenance?</i>	<p>As noted previously these are questions for DPIE.</p>
Question 3. <i>Did MCCM re-construct the missing high wall dams, clean water diversion banks etc that were identified by NRAR investigators before the rain?</i> <i>would MCCM be able to show us the dams?</i> <i>If built, did any of these high wall dams or clean water diversion banks burst in the heavy downpours and allow clean water to flow into the pit?</i>	<p>These dams will not be built as they would no longer be functional, additional dams are being scoped for completion.</p>
Question 4. <i>Is the fallout from the Corona Virus likely to affect shipments to China from Maules Creek coal?</i>	<p>No, Maules Creek Coal Mine does not ship to China as has been noted previously.</p>
Question 5. <i>Are the Chinese or any other customers talking about enacting forced majeure clauses in their contracts in a way currently being experienced by Australian gas companies?</i> <i>If so could this lead to production constraints and job cuts in the Whitehaven group of companies?</i>	<p>Commercial in confidence</p>

<p>Question 6.</p> <p><i>DPE Major Assessments officer Roseanne Hawkswood told us the compliance team of DoPIE are investigating the use of the pipeline To see if the use of it breaches the MCCM conditions of approval. Where is that up to? Can you provide any briefer they have sent you?</i></p>	<p>A question for Roseanne Hawkswood of DPIE.</p>
<p>Question 7.</p> <p><i>How much water is being pumped into the Roma and the Olivdene pipelines each day? When will Mccm reach the full allocation of your ground water licences in each place?</i></p>	<p>Commercial in confidence</p>
<p>Question 8.</p> <p><i>I understand the illegal take of surface water is now going to court? Can you confirm, and when? What is whc defence?</i></p>	<p>This matter is with NRAR.</p>
<p>Question 9.</p> <p><i>Do you know where the NRAR groundwater investigation into illegal take of groundwater is up to? Have you received a briefer you can provide to us?</i></p>	<p>Matters relating to this NRAR enquiry are ongoing.</p>
<p>Question 10.</p> <p><i>What are Whitehaven Coal's plans for expansion at Maules Creek?</i></p>	<p>Current approval is for 13Mt.</p>
<p>Question 11.</p> <p><i>Since sacking your three people from management have you seen a discernible increase in local employment as Mr Flynn outlined was the problem in recruiting locals?</i></p>	<p>We are unaware of alleged "sacking of three people from management".</p> <p>Recruitment for local employees is ongoing however there is increased focus on this.</p>

<p>Question 12.</p> <p><i>Have you had a positive response to you two recruitment videos about living in Gunnedah?</i></p>	<p>Whitehaven is continuously looking to recruit local people and encourage external applicants to relocate within the region.</p> <p>We have had a positive response in attracting highly skilled candidates to both the Gunnedah and Narrabri regions.</p> <p>It is made clear to candidates that our roles are residential and it is a requirement that they relocate to the region.</p>
<p>Question 13.</p> <p><i>Is there a reason you did not feature BOGGABRI or Narrabri as good places to live as well?</i></p>	<p>Intention is for the next video to feature Narrabri and Boggabri.</p> <p>The Producer of the last video has met with a representative of Narrabri Shire Council who is open to exploring publicity opportunities.</p> <p>All new candidates are given information about the region which includes Boggabri and Narrabri. Boggabri in particular sparks a lot of interest due to its close vicinity to the mine.</p> <p>Whitehaven allows new employees to stay in the Boggabri camp until they can find accommodation. This gives them a chance to explore the area before they make a decision about where they would like to live.</p>
<p>Question 14.</p> <p><i>What fire caused the smoke that me flynn said in the media had caused a reduction in production at maules creek?</i></p>	<p>Regional and local bush fires including Mt Kaputar</p>
<p>Questions 15.</p> <p><i>Are the rumours true that EPA shut the mine down a number of times since the last CCC due to dust problems? Would this have an impact on production levels??</i></p>	<p>No</p>
<p>Question 16.</p> <p><i>How far north is mccc mining? how much further north is it intending to go?</i></p>	<p>Maules Creek Coal Mine is approved to mine within the Project Disturbance Boundary.</p>
<p>Question 17.</p> <p><i>what is the source of the little white styrofoam balls found in the water ways? what are they used for?</i></p>	<p>This is under investigation.</p>
<p>Question 18.</p> <p><i>is mccc clearing any land during 2020? how much and where?</i></p>	<p>Yes clearing will be undertaken as per the approved Maules Creek Coal Mine Mining Operations Plan.</p>
<p>Question 19.</p> <p><i>Has mccc been given a directive to not clear land this year?</i></p>	<p>No</p>
<p>Question 20.</p> <p><i>have any koalas been seen or died in the last 12 months?</i></p>	<p>No Koala sightings have been recorded.</p>
<p>Question 21.</p> <p><i>What happened over summer? were there any shut downs and why?</i></p>	<p>Maules Creek Coal Mine shut down due to local and regional Air Quality events.</p>

<p>Question 22.</p> <p><i>Could Boggabri Coal and Whitehaven provide figures from their various employment agencies as to how many Boggabri local people have applied and how many have received jobs in the past twelve months? This is easily done by using the postcode for Boggabri 2382.</i></p>	<p>Selection criteria of a preferred candidate is not solely based on Postcode, there are a range of metrics.</p>
<p>Question 23.</p> <p><i>That both companies give a commitment to advertise once a month in the local green flyer of all job vacancies available.</i></p>	<p>This has been referred to HR team for consideration.</p>
<p>Question 24.</p> <p><i>"He noticed a security vehicle at Olivedene over the weekend. As a neighbour, is there anything he should be aware of?"</i></p>	<p>Security monitor all our Maules Creek Coal Mine Assets.</p>
<p>Question 25.</p> <p><i>how did the mine manage during the recent large rainfall events (ie in terms of impacts)?</i></p>	<p>Unfortunately due to the very heavy rainfall, erosion and scouring occurred in some areas. These are in the process of being reshaped.</p>
<p>Question 26.</p> <p><i>"Around Warner's Rd, he noticed a piped production bore that he thought may be too close to a monitoring bore (within the 400 m threshold). He would appreciate a response on that and whether DPIE Water is fine with that."</i></p>	<p>We believe the infrastructure that is being referred to is the transfer pump, not an extraction bore. Extraction is being carried out at licenced bores.</p>
<p>Question 27.</p> <p><i>"a request for the Material Safety Data Sheet for the</i></p> <ol style="list-style-type: none"> <i>1. dust suppression additive</i> <i>2. coal washing additive</i> 	<p>Provided.</p>
<p>Question 28.</p> <p><i>Regarding Maules Creek staff, as described at our last CCC meeting:</i></p> <p><i>"General Discussion re the WHC Presentation</i></p> <p><i>JW – With the staff at the Maules site of 600 – does that include contractors?</i></p> <p><i>DS – It doesn't pick up the Biodiversity workers, but the rehab workers would be included in this number. This 600 is a full-time equivalent.</i></p> <ol style="list-style-type: none"> <i>a. Yes? It does include all contractors?</i> <i>b. Exactly what duties are biodiversity and which are rehab?</i> <i>c. so if staff are on site they are rehab?</i> <i>d. And the offsets are all done by contractors?</i> <i>e. and these works not included in the 600 full time equivalent figure?"</i> 	<p>No</p> <p>Biodiversity team are additional, are offsite and working on the Biodiversity Offsets. The Rehabilitation team are onsite, rehabilitating the dump progression which can be seen as discussed at the last meeting, from Maules Creek.</p> <p>Yes - see point b.</p> <p>No</p> <p>Not sure what is meant by this, however if it is asking if the Contractors doing the Biodiversity works are in the 600 full time equivalents then the answer is no.</p>

<p>Question 29.</p> <p><i>It would be good to have a presentation on the current situation regarding the impact of the recent 'significant' rain events on the MCC mine operations. Albeit not drought breaking, has MCC been able to harvest/capture surface water.</i></p>	<p>The significant rainfall events have bolstered water stocks on site and in some cases there was spilling of dams.</p> <p>Ongoing rainfall has enabled WaterNSW to lift restrictions on pumping from the Namoi River for High Security Water Users.</p>
<p>Question 30.</p> <p><i>Is MCC (now) allowed to harvest Namoi river water?</i></p>	<p>Yes</p>
<p>Question 31.</p> <p><i>Also, what is the current position regarding the modification applications - Proposed Modification 5 and Proposed Modification 6 with the NSW Department of Planning, Industry and Environment.</i></p>	<p>Modifications 5 and 6 have been approved by DPIE.</p>

Maules Creek Coal Mine Community Consultative Committee Meeting #28

Environmental Monitoring Report For the Q4 period, October - December 2019

Attended Noise Monitoring

Attended noise monitoring was undertaken at six locations during October, November and December 2019 by an independent acoustic consultant. The measured noise level (LAeq 15 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 – OCTOBER TO DECEMBER 2019.

Table 1 - October Noise Monitoring

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies ¹	MCCP LAeq dB ²	Exceedance dB ³
NM1	10/10/2019 22:30	2.8	0.0	35	Yes	<25	Nil
NM2	10/10/2019 23:00	2.6	0.0	39	Yes	32	Nil
NM3	10/10/2019 23:24	2.4	0.0	35	Yes	<25	Nil
NM4	10/10/2019 23:30	2.7	0.0	35	Yes	<25	Nil
NM5	10/10/2019 22:00	2.1	0.0	35	Yes	IA	Nil
NM6	10/10/2019 23:54	2.9	0.0	35	Yes	IA	Nil

Table 2 - November Noise Monitoring

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies ¹	MCCP LAeq dB ²	Exceedance dB ³
NM1	14/11/2019 22:30	0.2	0.0	35	Yes	25	Nil
NM2	14/11/2019 23:30	0.2	0.0	39	Yes	<25	Nil
NM3	14/11/2019 23:45	0.6	0.0	35	Yes	IA	Nil
NM4	14/11/2019 23:00	0.3	0.0	35	Yes	<25	Nil
NM5	14/11/2019 22:00	0.6	0.0	35	Yes	<25	Nil
NM6	14/11/2019 23:56	0.2	0.0	35	Yes	IA	Nil

Table 3 - December Noise Monitoring

Location	Start Date and Time	Wind Speed m/s	Rainfall mm	Criterion dB	Criterion Applies ¹	MCCP LAeq dB ²	Exceedance dB ³
NM1	02/12/19 22:51	1.1	0.0	35	Yes	<30	Nil
NM2	02/12/19 23:46	1.4	0.0	39	Yes	IA	Nil
NM3	02/12/19 23:25	1.4	0.0	35	Yes	IA	Nil
NM4	02/12/19 23:22	1.4	0.0	35	Yes	<25	Nil
NM5	02/12/19 22:21	2.7	0.0	35	Yes	IA	Nil
NM6	03/12/19 00:12	1.5	0.0	35	Yes	IA	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 Q4 no 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.

The 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 Q4 2019.

LA1, 1minute GENERATED BY MCC AGAINST OPERATIONAL NIGHT NOISE CRITERIA – October to December 2019.

Table 4 - October 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	10/10/2019 22:30	2.8	0.0	45	Yes	32	Nil
NM2	10/10/2019 23:00	2.6	0.0	45	Yes	38	Nil
NM3	10/10/2019 23:24	2.4	0.0	45	Yes	30	Nil
NM4	10/10/2019 23:30	2.7	0.0	45	Yes	<25	Nil
NM5	10/10/2019 22:00	2.1	0.0	45	Yes	IA	Nil
NM6	10/10/2019 23:54	2.9	0.0	45	Yes	IA	Nil

Table 5 – November 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	14/11/2019 22:30	0.2	0.0	45	Yes	33	Nil
NM2	14/11/2019 23:30	0.2	0.0	45	Yes	35	Nil
NM3	14/11/2019 23:45	0.6	0.0	45	Yes	IA	Nil
NM4	14/11/2019 23:00	0.3	0.0	45	Yes	29	Nil
NM5	14/11/2019 22:00	0.6	0.0	45	Yes	28	Nil
NM6	14/11/2019 23:56	0.2	0.0	45	Yes	IA	Nil

Table 6 - December 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	02/12/19 22:51	1.1	0.0	45	Yes	31	Nil
NM2	02/12/19 23:46	1.4	0.0	45	Yes	IA	Nil
NM3	02/12/19 23:25	1.4	0.0	45	Yes	IA	Nil
NM4	02/12/19 23:22	1.4	0.0	45	Yes	<25	Nil
NM5	02/12/19 22:21	2.7	0.0	45	Yes	IA	Nil
NM6	03/12/19 00:12	1.5	0.0	45	Yes	IA	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
October	SE
November	WNW
December	SE

Blast Monitoring

There were 25 blasts at MCCM during Q4 2019. All blast monitoring results recorded within the reporting period have been within the applicable overpressure and ground vibration limits specified in the respective approvals.

Table 8 - Blast Results Summary Quarter 4 2019

Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Noise	dB (Lin Peak)	All	24	94.6	106.3	120	No
Vibration	mm/s		24	0.2	1.09	10	No

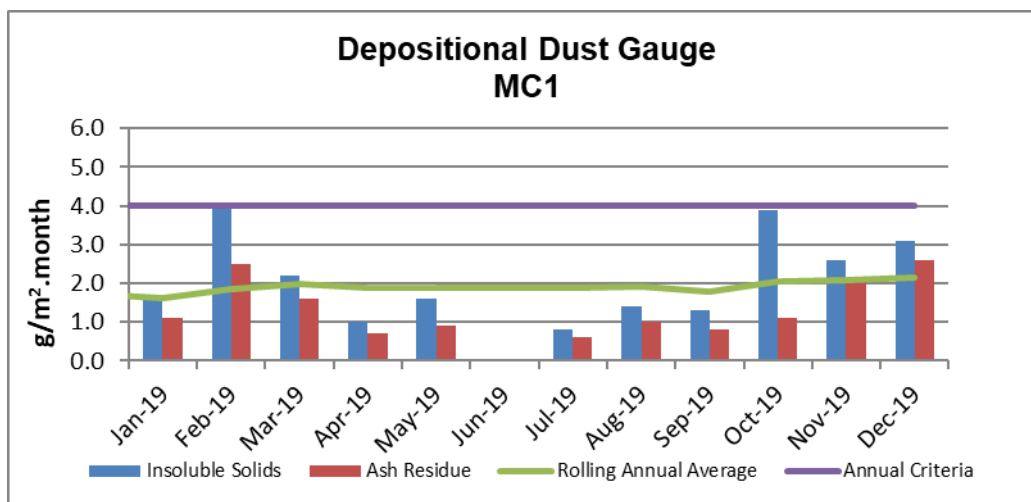
Air Quality

Total Depositional Dust

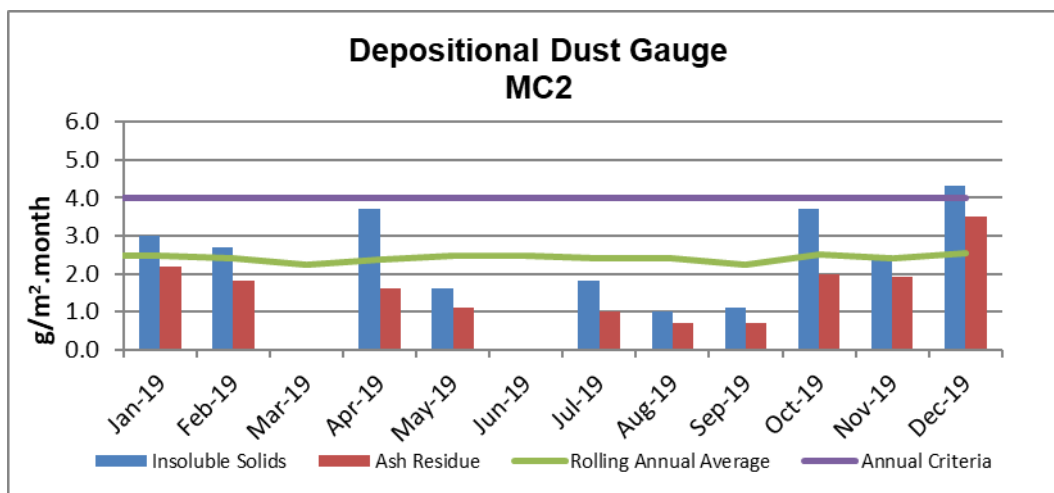
The monthly rolling annual average remains below the relevant Project Approval criteria of 4gm/m²/month for the respective monitoring points, as shown on the graphs below.

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

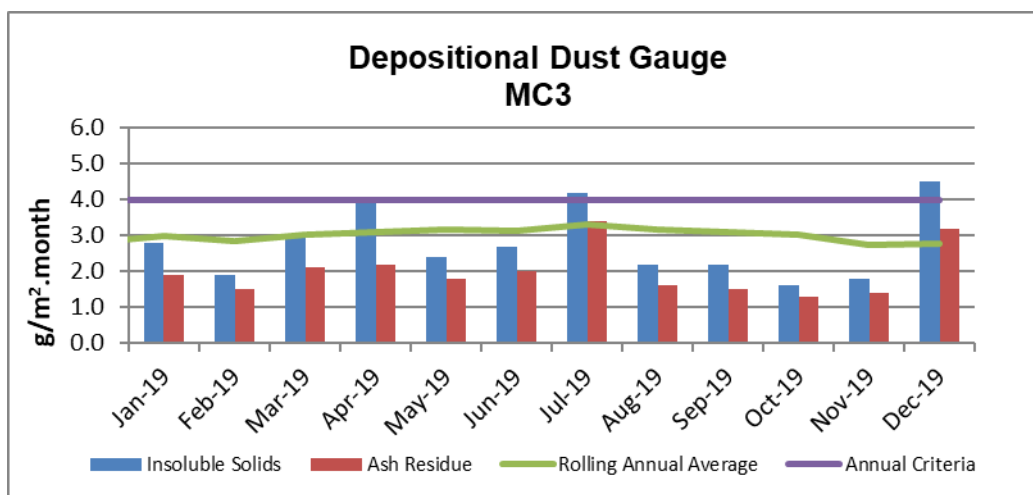
MONTH	MC1	MC2	MC3	MC4
October - 19	3.9	3.7	1.6	51.7
November-19	2.6	2.5	1.8	3.2
December-19	3.1	4.3	4.5	5.8
12 MONTH ROLLING AVERAGE	2.1	2.5	2.8	6.7



* 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.).

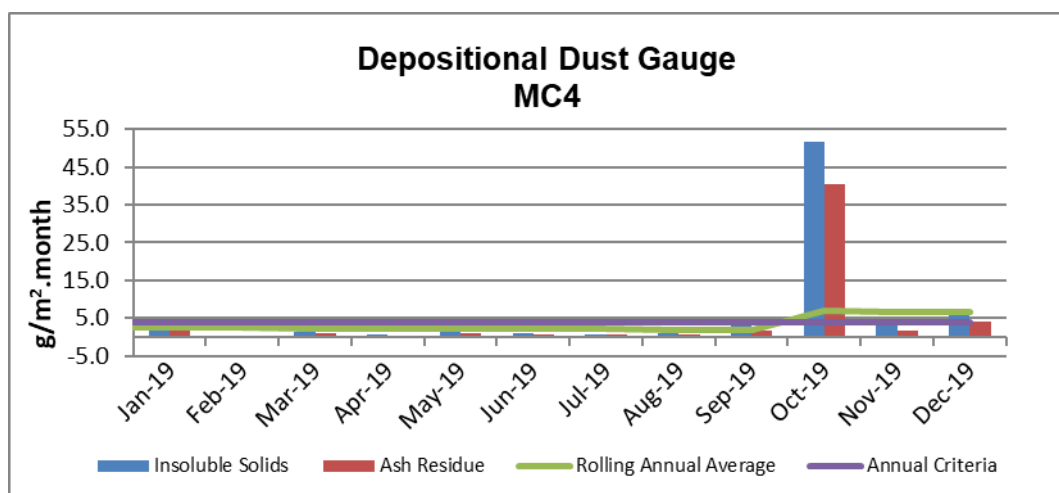


* Blank cells indicate sample periods where the sample has been contaminated and excluded from the results tables due to contaminated material (insect larvae, bird droppings, vegetation etc.). ** Exceedances recorded in December were attributed to the regional events



* 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.).

** Exceedances recorded in December were attributed to the regional events.

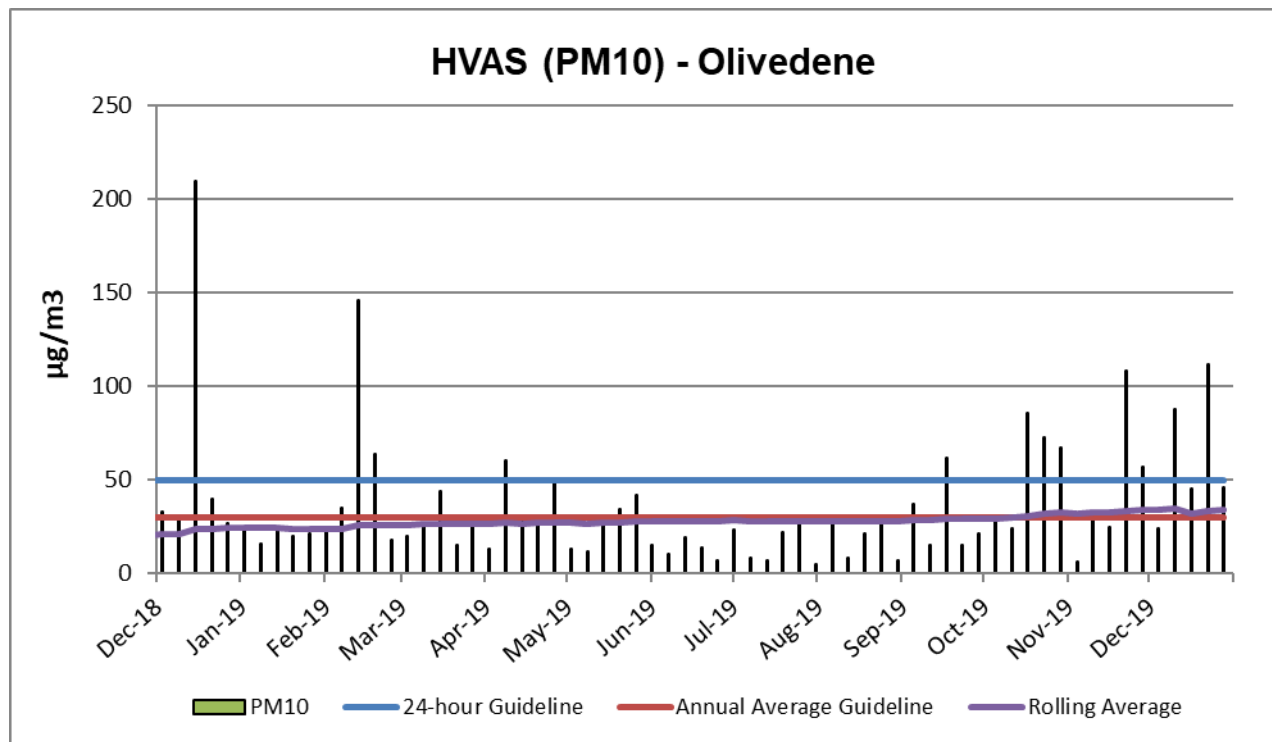


* Blank cells indicate sample periods where the sample has been contaminated and excluded from the results tables due to contaminated material (insect larvae, bird droppings, vegetation etc.). ** Exceedances recorded in October were attributed to the regional events and potential contamination.

High Volume Air Sampling (HVAS)

The HVAS monitor is located on the property 'Olivedene,' a mine owned property on Therribri Road. During Q4 there were seven exceedances of the 24 hour average of 50 $\mu\text{g}/\text{m}^3$.

HVAS PM_{10} Rolling Annual Average during Q4 2019 elevated above the Annual Average Guideline 30 $\mu\text{g}/\text{m}^3$. Recalculations of this figure have been undertaken to remove all extraordinary events as per approvals. Recalculated annual averages were below the Annual Average Guideline of 30 $\mu\text{g}/\text{m}^3$.

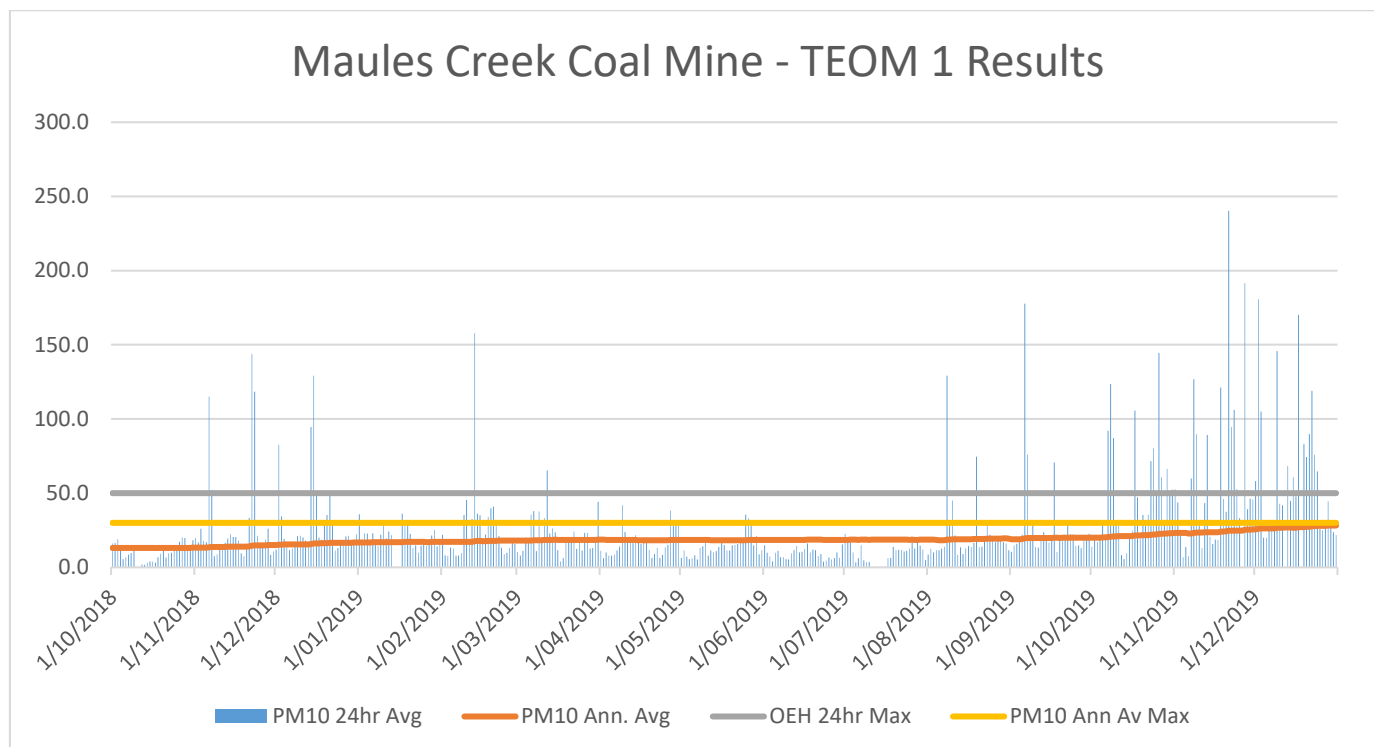


* Exceedances recorded in December, February and April, September, October, November and December were attributed to the regional events and discussed at the February, May, August and October 2019 CCC meetings

TEOM - PM₁₀ Results

The annual average for PM₁₀ results at the Maules Creek Coal TEOM is above the Project Approval annual average criteria of 30µg/m³ as shown in the following figure. As per the project approval, recalculations have been undertaken to remove extraordinary events resulting in The PM₁₀ annual average results below the 30µg/m³. There have been fifteen exceedances of the 24 hour average for Q4, these have all been attributed to regional dust events and bushfires.

TEOM Result Figures – Particulate Matter PM₁₀µg/m³



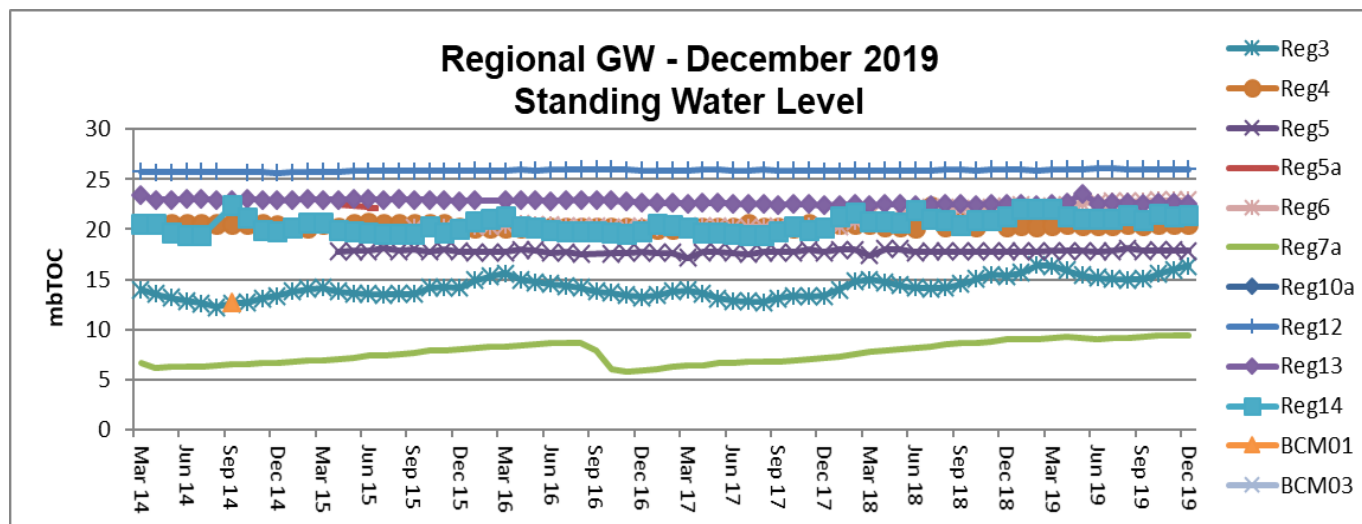
* Blank columns indicate sample periods where there was either power outage, maintenance or other related causes.

** 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

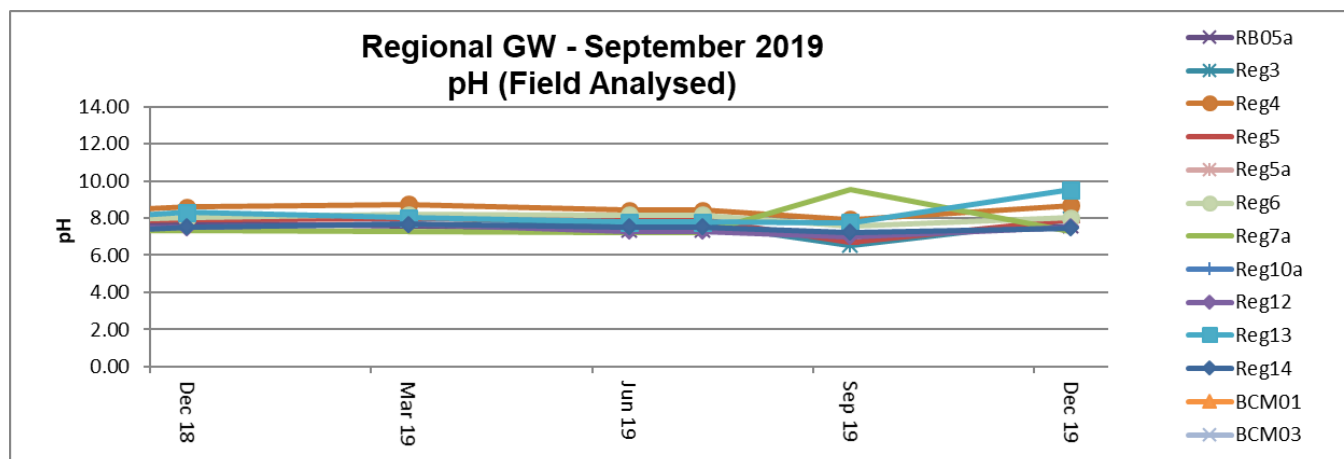
Groundwater

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.



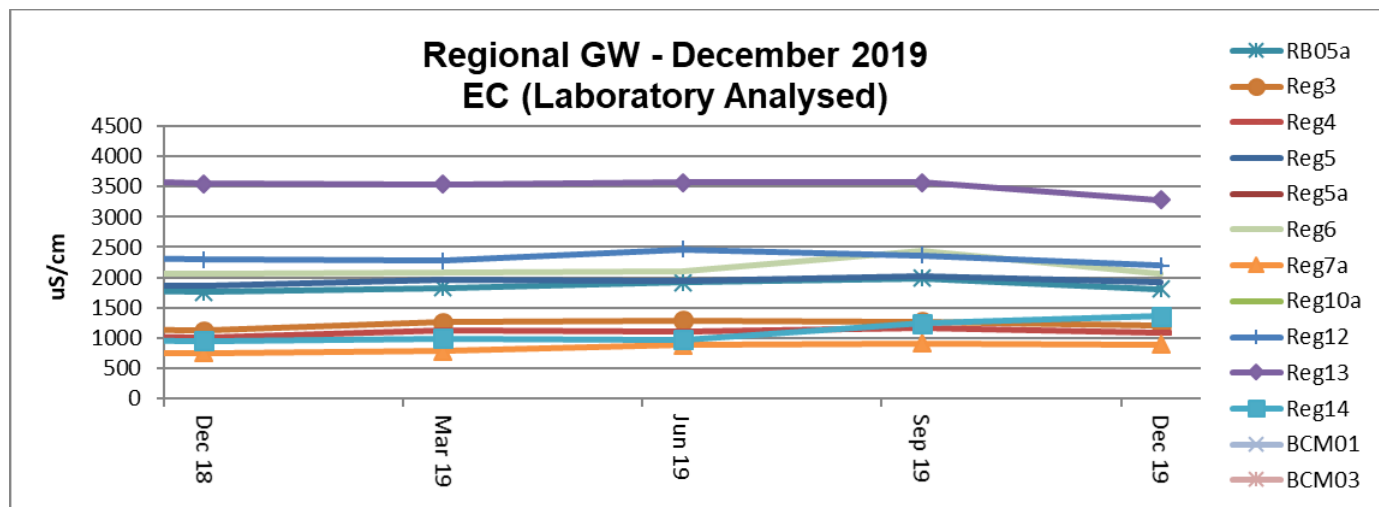
Acidity / Alkalinity (pH)

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



Wet Weather Discharge Sampling

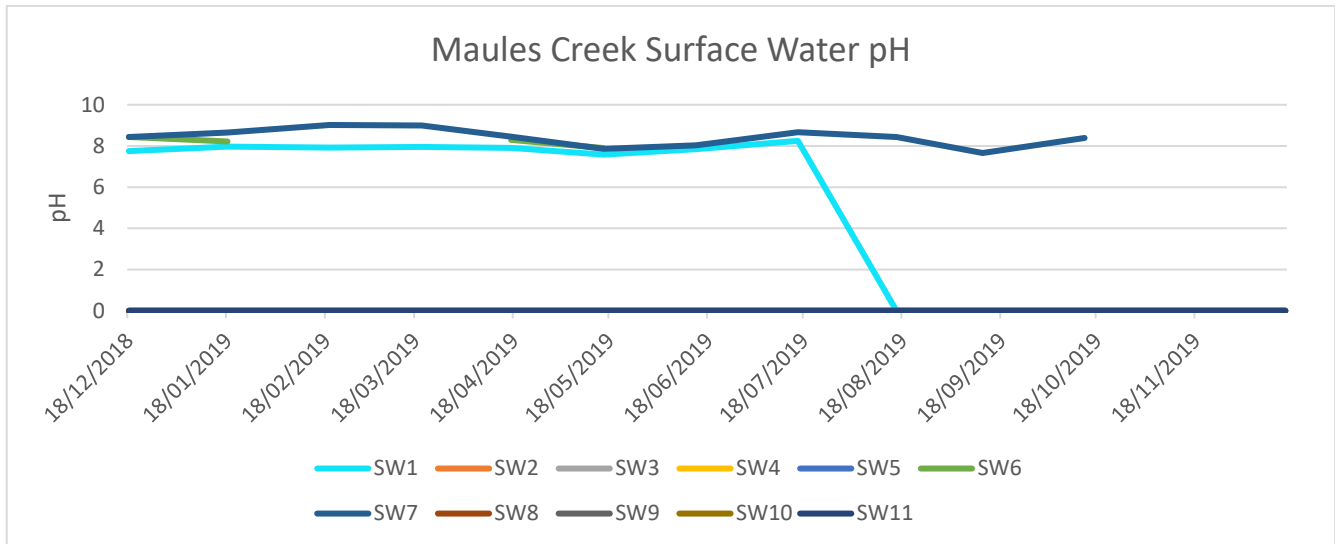
During Q4 there were no discharge events.

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 due to the current drought only five were able to be sampled during the twelve month period.

Acidity / Alkalinity (pH)

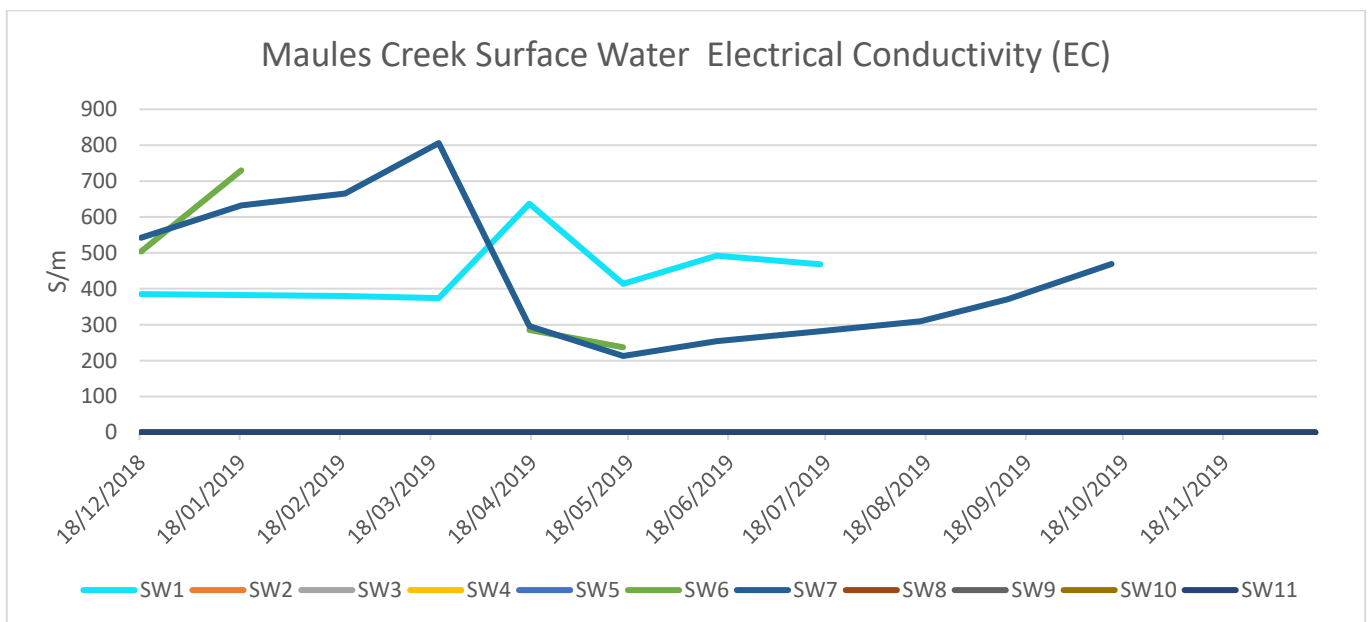
Monitoring results for pH in creeks and rivers surrounding MCCM are all trending within the ANZECC range for Irrigation, Ecosystem Health and Recreation.



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

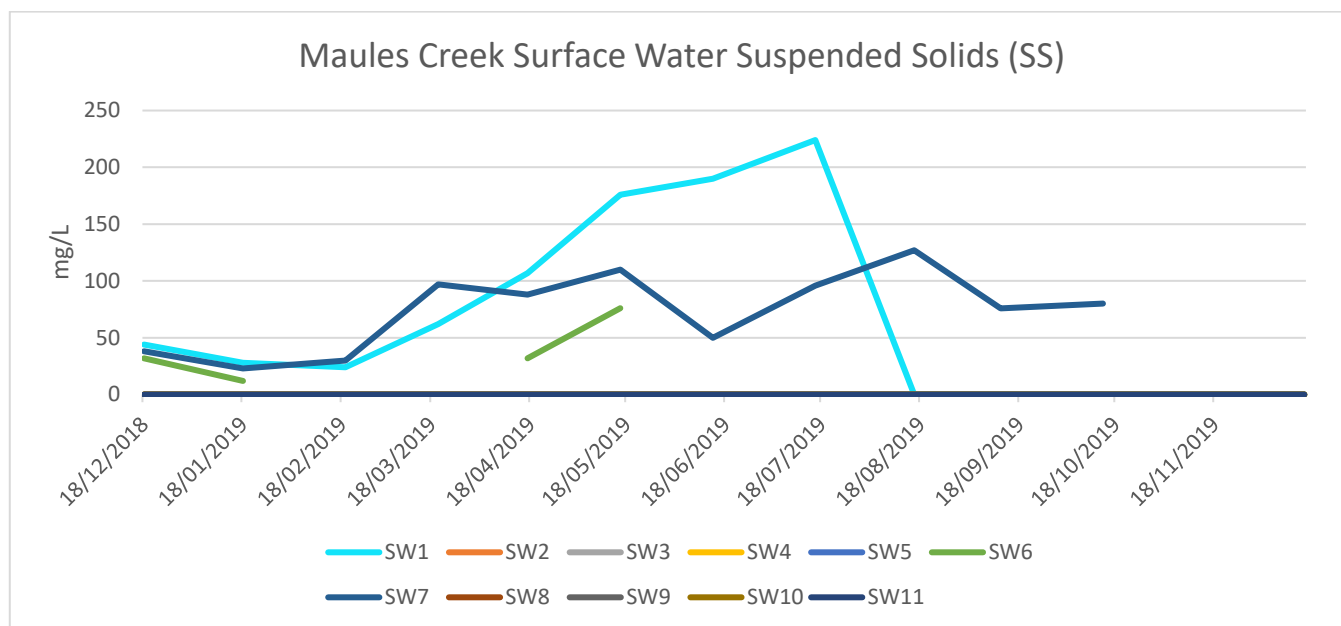
Electrical Conductivity

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.



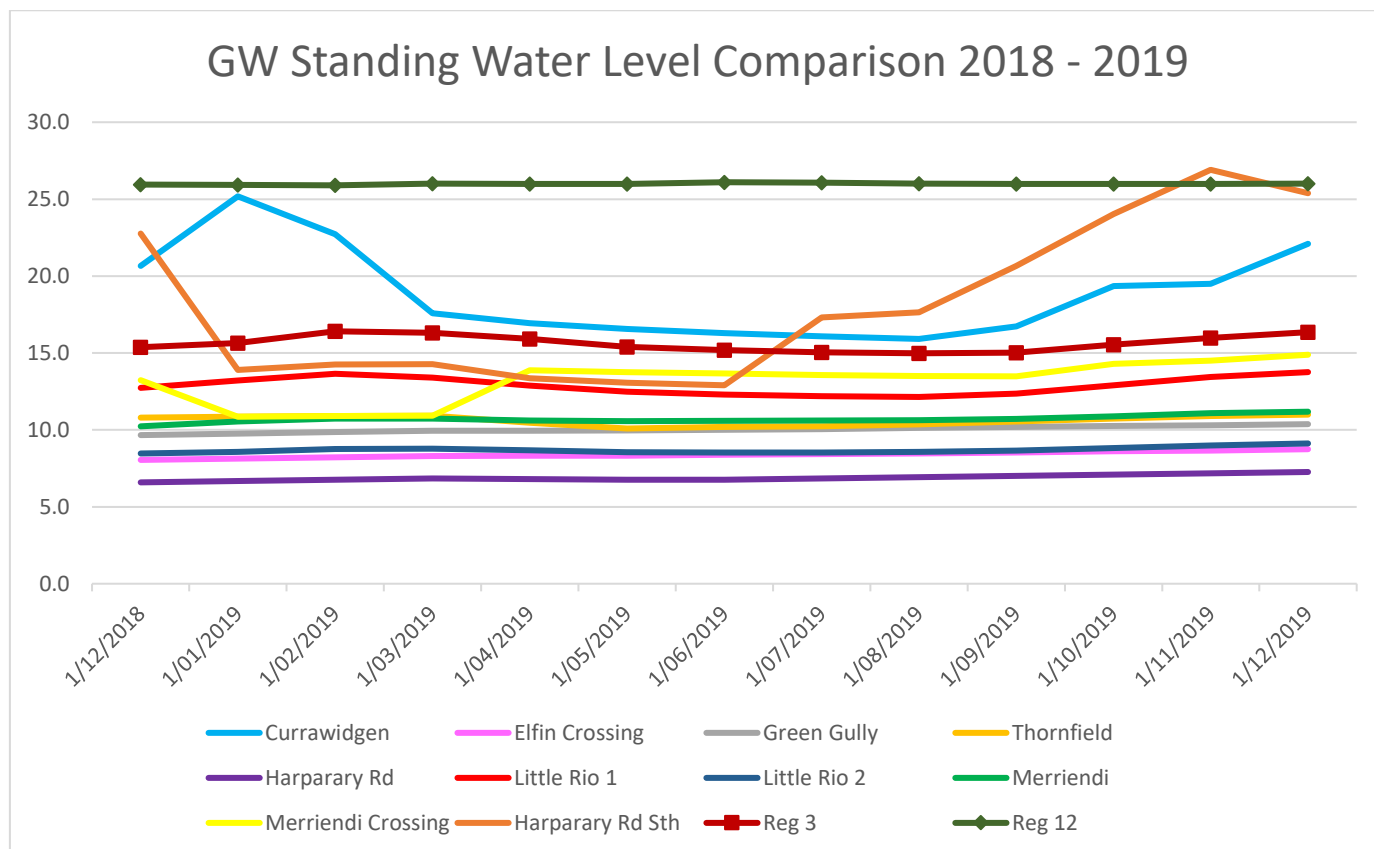
Total Suspended Solids (TSS)

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 no elevated levels of TSS in Q4.



Regional Groundwater monitoring

Maules Creek Coal Mine monitors bores across the region.



Rehabilitation

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

Feral Animal Management

During the most recent routine Whitehaven Offset Area Feral Animal Control program (December 2019) the results included:

- 64 out of total 160 pigs trapped were from the Maules Creek/Boggabri area; and
- 71 out of a total 209 fox baits (1080) taken were from the Maules/Boggabri area.

Revegetation

- Maules Creek Biodiversity revegetation completed with over 76,000 trees planted
- Tree watering currently on hold given the good soaking rain.

Fire Management

- Annual fire break track maintenance of Biodiversity Offsets carried out to maintain zero fuel barriers and good access around Maules Offsets;
- Engaged LRM Fire & Rescue to provide Bushfire Response Service for 2019/2020 fire season

Community Complaints

- 7 complaints were received during Q4 CY2019. Please refer to the Community Complaints Register on the Whitehaven Coal Maules Creek website.

Maules Creek Coal Mine

CCC MEETING

BOGGABRI GOLF CLUB

FEBRUARY 2020



WHITEHAVEN COAL

Company Report & Overview of Activities

- FY20 target production 12.8Mtpa ROM (Run of Mine) coal.
- Safety record of 4.57 (Total Recordable Injury Frequency Rate (TRIFR) - injuries per million hours worked) at end December, which is down from the September figure of 4.66.
- Continued focus to improve.



Health and Safety

— Employee health and safety programs continued to focus on:

- Healthhaven Hub and annual challenge
- Movement for Improvement – Injury Prevention
- Ongoing Fitness for Work Promotions including Fatigue Management
- Annual Skin Checks
- Ongoing Mental Health Awareness and Employee Assistance Program
- Hygiene Monitoring Program
- First Aid Training
- Incident Investigation Training
- Safety Leadership Induction for New Supervisors
- Emergency Response Team Training
- Open Cut Examiner Training
- Workplace Trainer / Assessor Training
- Safehaven Conference

Employment

- Continued focus on local, indigenous and female employment with ongoing training programs undertaken.
- There have been 18 new trainees employed from October to December.
- Over 600 people employed on site

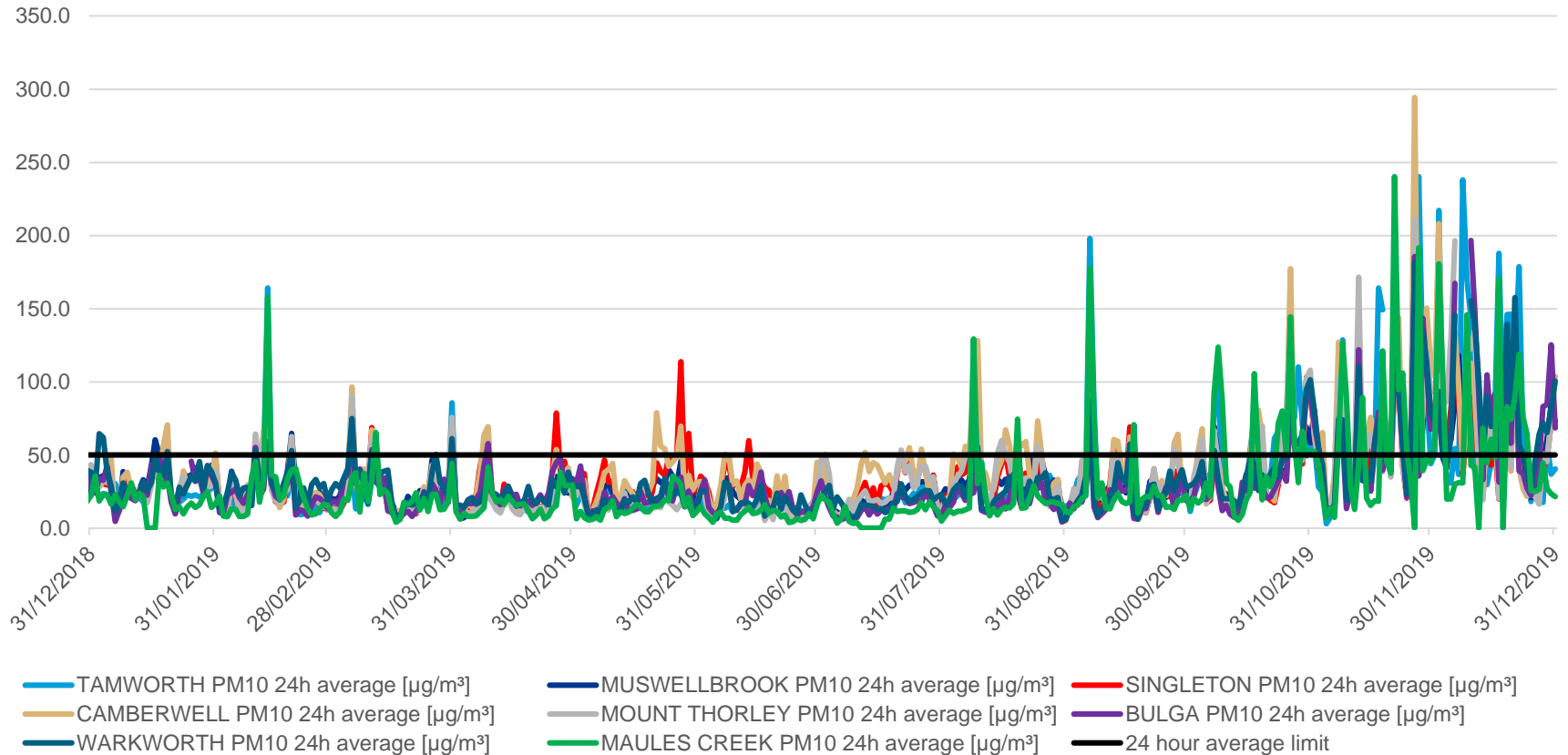
Air quality management

- Publicly available results of TEOM1 available on the EPA website. Annual rolling average for TEOM 1 is 28.2 ug/m³ at 31 December 2019 (criteria 30ug/m³).
- Ongoing dust suppressant application across the operation.
- Progressive overburden emplacement and bulk shaping on the northern dump, with some top soil spreading in progress.



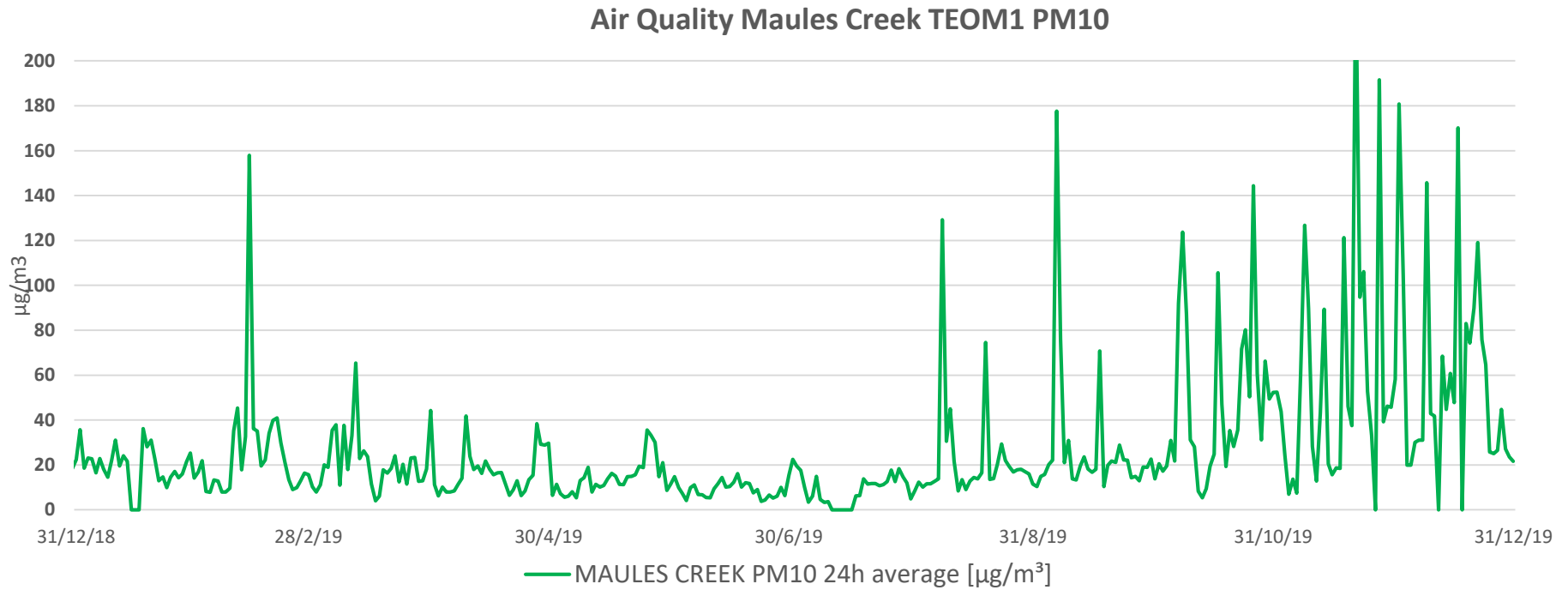
Air Quality Monitoring December 2018 – December 2019

Air Quality PM10 Monitoring Comparison



2019	TAMWORTH PM10	MUSWELLBROOK PM10	SINGLETON PM10	CAMBERWELL PM10	MOUNT THORLEY PM10	BULGA PM10	WARKWORTH PM10	MAULES CREEK PM10
Annual Average	34	34	28	40	33	30	33	28.2
Max 24hr Ave	240	231	206	294	211	197	182	240

Air Quality Monitoring December 2018 – December 2019



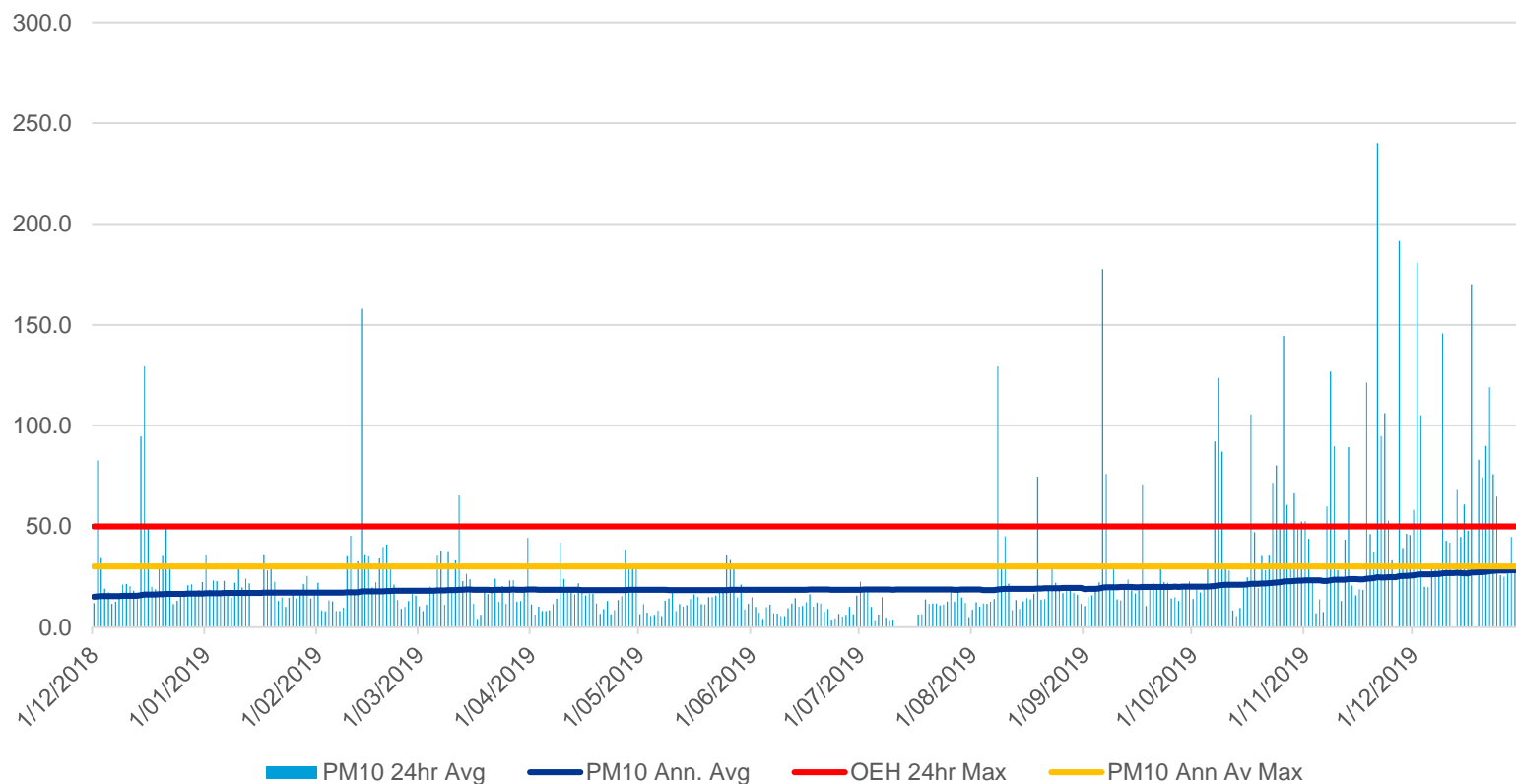
Annual rolling average for TEOM 1 is 28.2 ug/m³ at 31 December 2019 (criteria 30ug/m³). There were 15 spikes above 50ug/m³ during Q4 of 2019.

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)

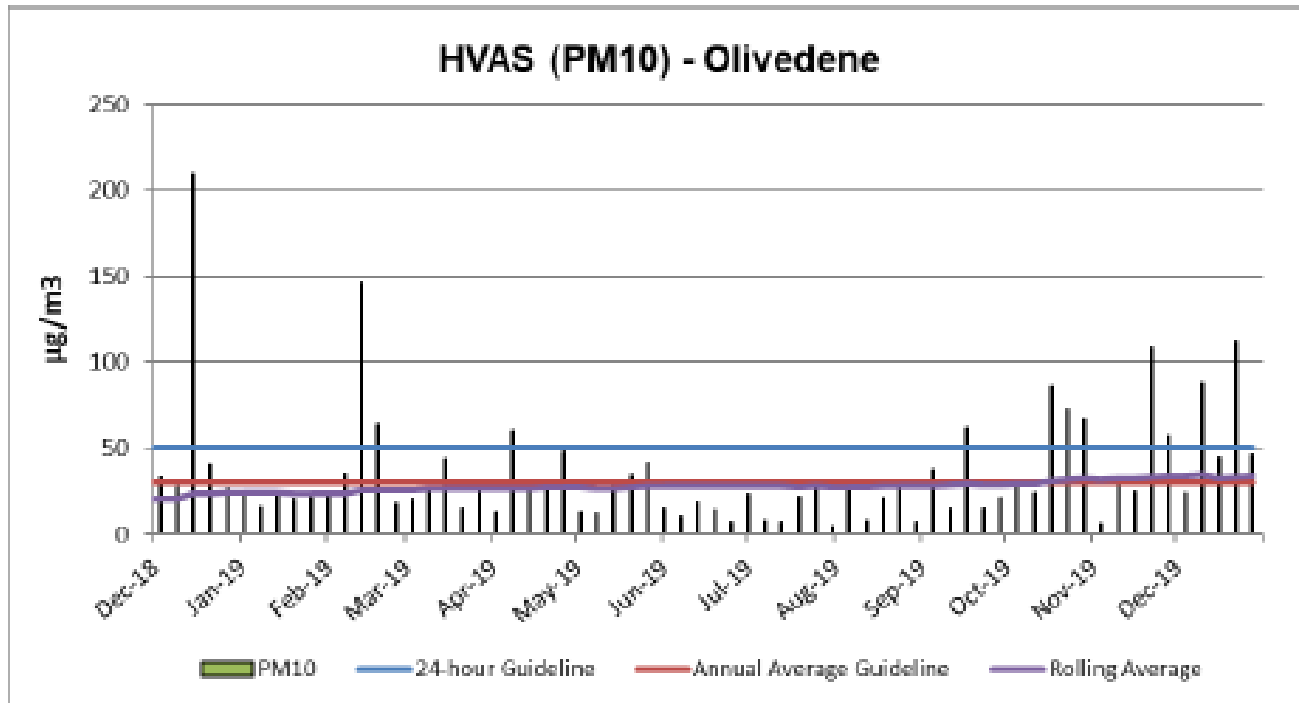


Figure 1: 24-hour / Annual Average Summary Results for PM₁₀ – HVAS Olivedene

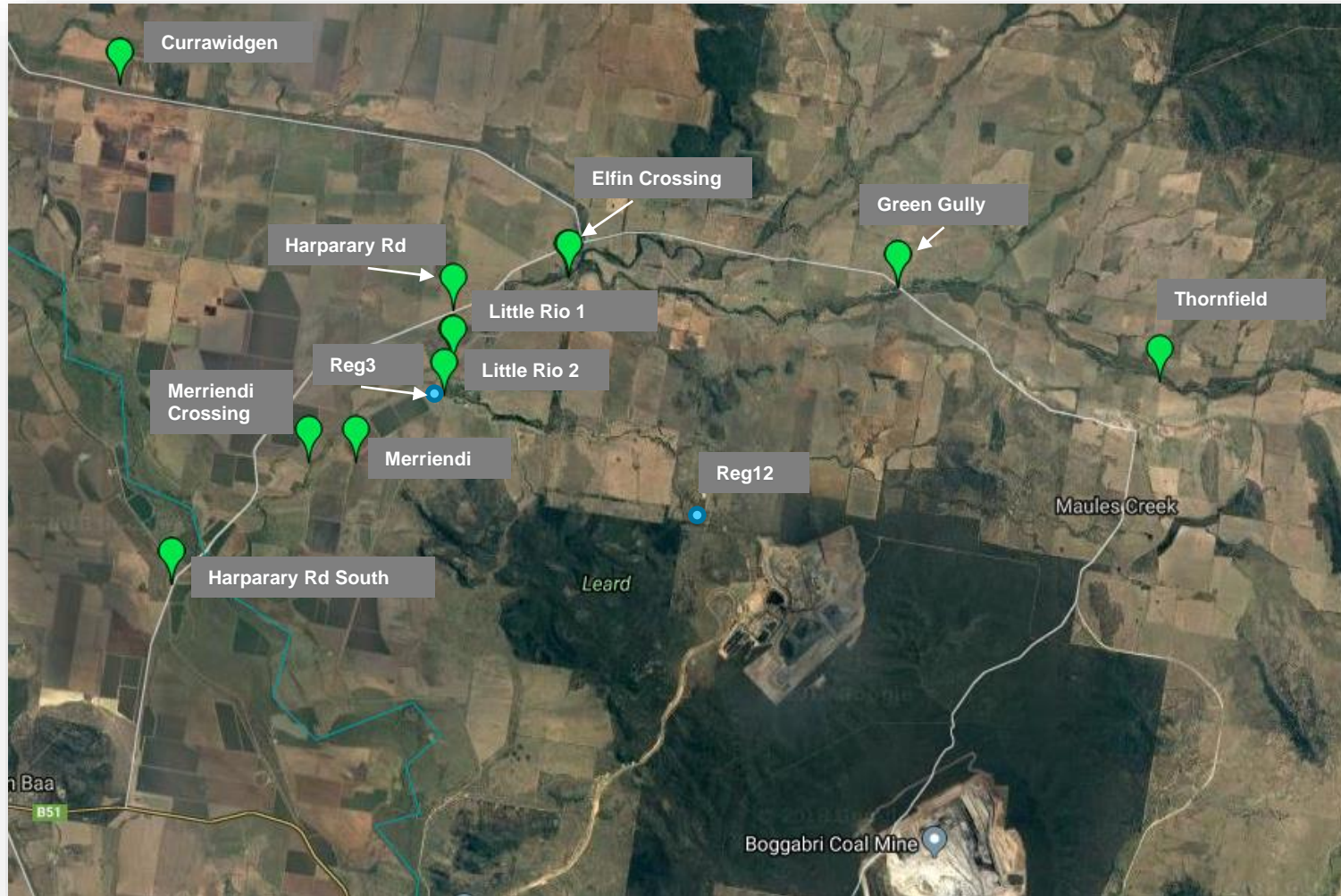
Regional and local dust events due to drought conditions noted in spikes above

Groundwater monitoring



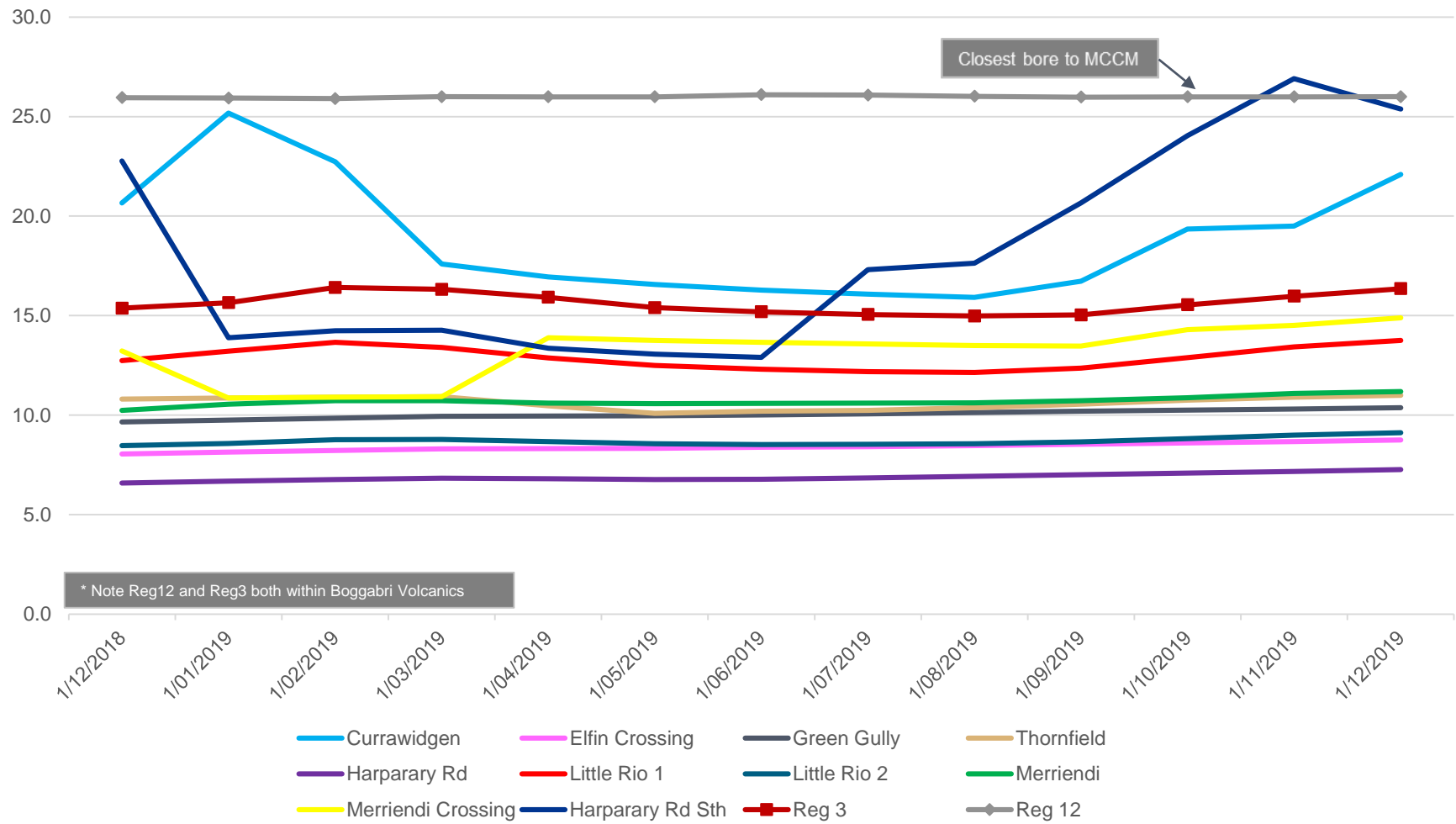
WHITEHAVEN COAL

Monitoring Locations



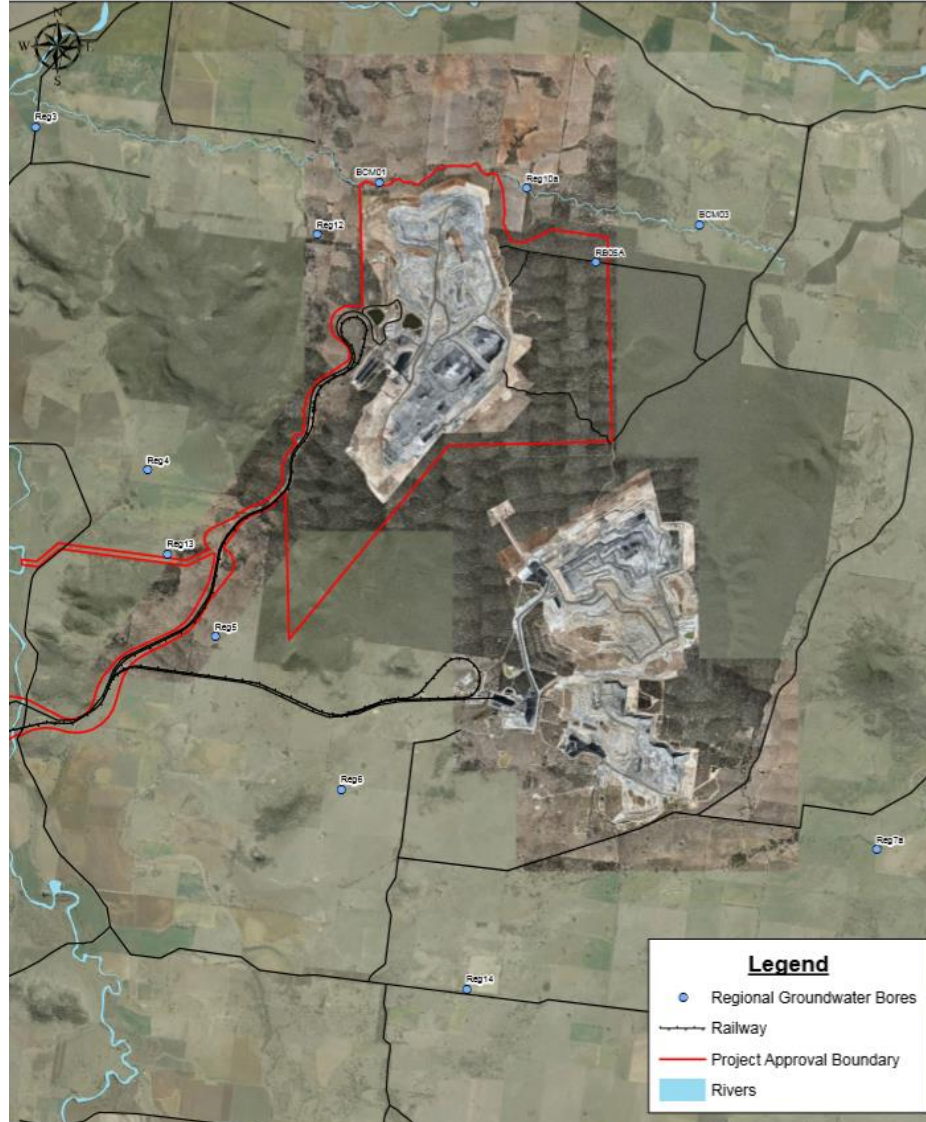
Groundwater levels

GW SWL Comparison 2018 - 2019

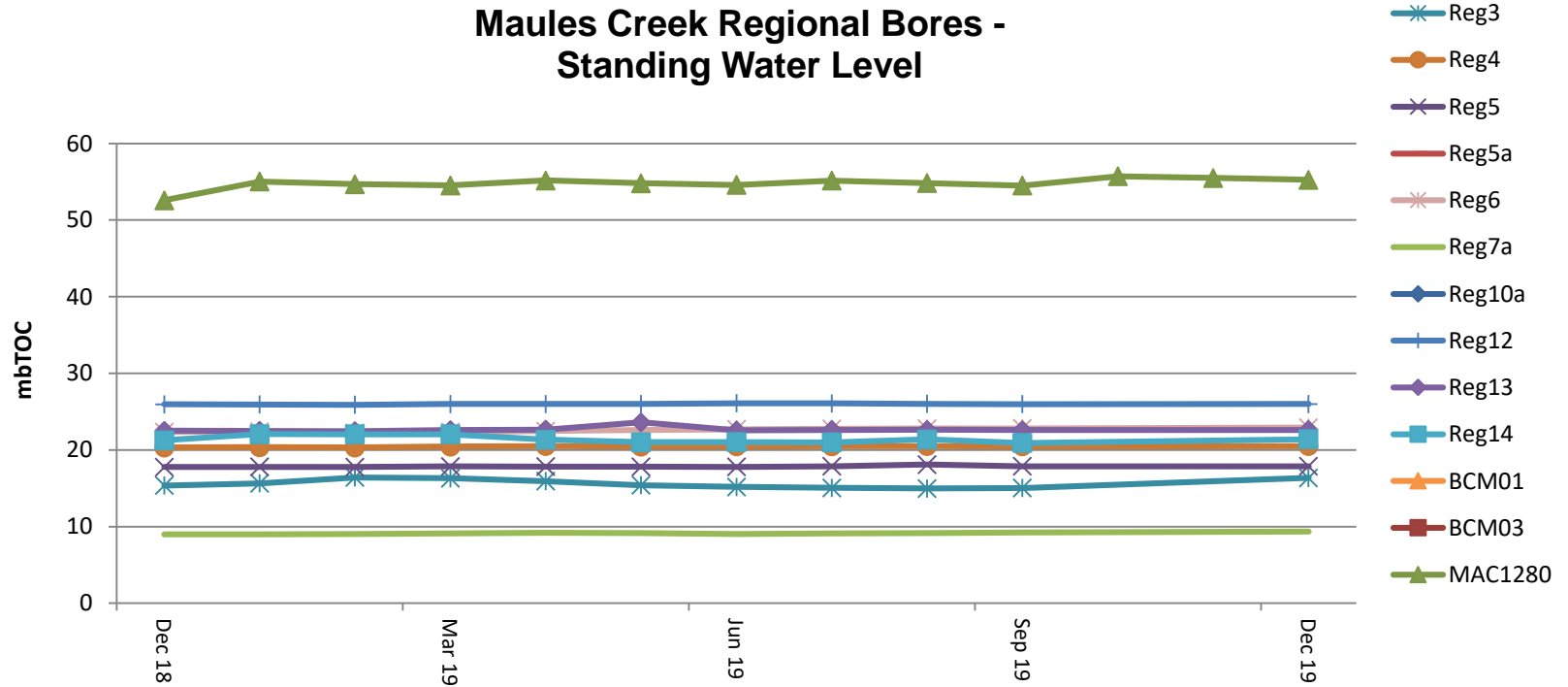


Source: NSW DPI- Water & MCCM monitoring data

Standing water levels



Standing water levels



Water

- Severe drought conditions in the area are putting pressure on local water users.
- We are taking steps at all our mines to conserve water and support water security.
- As per our correspondence, options to ensure water security at Maules Creek are ongoing.
- The primary water source for Maules Creek is a high security water licence drawing upon the Namoi River, however this water source has been severely impacted by the drought. Recent rains have seen the river flow again.

Water

Trucking

- Water trucking currently suspended.

Pipeline

- Pipeline constructed from Whitehaven owned Olivedene property bore to existing river pipeline.
- Second pipeline constructed on Whitehaven owned land and in the Warners and Therribri Roads easements. This pipeline connects Whitehaven owned bores to the existing river pipeline.
- Applicable Water Access Licenses (WAL's) held.

Biodiversity Management

Feral Animal Management

- During the most recent routine Whitehaven Offset Area Feral Animal Control program (December 2019) the results included:
 - 64 out of total 160 pigs trapped were from the Maules Creek/Boggabri area; and
 - 71 out of total 209 baits (1080) taken were from the Maules Creek/Boggabri area.

Revegetation

- Tree watering is ongoing achieving between 70-90% survival with heat/drought and damage from Kangaroos/Goats issues being managed;

Fire Management

- Over 600ha of Wirradale & Wongala South Offset impacted as part of the 18,000ha Kaputar Bushfire. Fire management contractor was engaged to provide Bushfire Response Service to this and other Fires that have occurred this Season;

Monitoring

- Spring monitoring program was completed with over 60 flora sites and over 20 fauna sites surveyed.

Biodiversity Management

Upcoming works:

- Feral Animal Monitoring and Control Program in February & March 2020;
- Tree Watering ongoing;
- Complete annual Fire Break Track Maintenance Program;
- Post Demolition Hazardous Material Assessment ongoing;
- Autumn 2020 Flora Monitoring;
- Annual Fire Hazard and Fuel Load Assessments;
- Commence planning and assessment for 2020 ecological and HR burn program;
- Maintenance of Boundary, Heritage and Threatened Species Fences ongoing.

AHS movement to date – February 2020

KEY PHYSICAL ACHIEVEMENTS TO DATE

- Six (6) EH5000s have now operated autonomously (full fleet for Phase 1 & 2);
- 1,143km travelled autonomously;
- 718 haul cycles (real and test);
- 291 loads hauled autonomously;
- 37,918bcm (85,131t) of waste hauled autonomously;



Community

- Supporting the Future EDU program in Narrabri Shire in promotion of STEM.
- Narrabri Business Chamber visited site.
- Complaints details – on the website.
- Work experience program held again at MCC this year. 3 of Narrabri High School students
- Whitehaven are advertising for 2020 Cadetship Program
 - Mining Engineering, Electrical Engineering, Mechanical Engineering, Mechatronics, Geology, or Environmental Science.

<https://whitehaven.applynnow.net.au/jobs/WHC419-2020-cadetship-program>

Local spend

- Sponsorships and donations have been made to the:
 - Tamworth and Region for Oct – Dec was ~\$668
 - Narrabri area community for Oct – Dec was ~\$36,810 and
 - Gunnedah area community for Oct – Dec ~\$23,606

Next meeting –

May 2020

SR 17 Narrabri 35

17 Maules Ck SR 11 Boggabri 18

THANK YOU

www.whitehavencoal.com.au



WHITEHAVEN COAL