

# Tarrawonga Coal Mine Community Consultative Committee Meeting #59

Quarterly Environmental Monitoring Report  
Nov 1 2019 – Jan 30, 2020



*Photo taken in December 2019 in a section of the northern emplacement areas rehabilitated in July 2018.*

This report has been prepared for the Community Consultative Committee (CCC) meeting to show Environmental monitoring performance at Tarrawonga Coal Mine (TCM) for the reporting period from November 1 2019 to January 30, 2020. Maps with all the monitoring locations are available in *Appendix A*.

# Noise Monitoring

Attended noise monitoring was conducted at the “Bungalow” (TN4), “Barbers Lagoon” (TN3) and “Matong” (TN2) properties from 2<sup>nd</sup> to the 5<sup>th</sup> December 2019. The noise criterion for the mine is 35dB(A) Leq (15 min) for all operating times.

The results below show that noise emissions from the mine did not exceed the operational noise criterion at the “Barbers Lagoon”, “Bungalow” or “Matong” monitoring locations during the monitoring event during the entire monitoring period.

*(See below summary tables extracted from Wilkinson Murray report -19360-T-02-(Q4 2019)).*

**Table 4-1 Comparison of noise levels between TN2 and 573b Coomalgah**

Date	Time	Noise Limits	TN2 Mine L <sub>Aeq</sub> Noise Level (dB)	573b Coomalgah Mine L <sub>Aeq</sub> Noise Level (dB)	
		L <sub>Aeq,15 min</sub>	Measured Mine Contribution	Commensurate Mine Compliance Level	Exceedance
02/12/2019	22:39	35	34	25	0
	22:55	35	37	28	0
	11:46	35	32	23	0
	12:03	35	35	26	0
	12:21	35	32	23	0
03/12/2019	12:53	35	33	24	0
	21:38	35	38	29	0
	22:00	35	37	28	0
	22:15	35	36	27	0
	22:31	35	32	23	0
	22:48	35	27	18	0
	11:07	35	33	24	0
	11:25	35	33	24	0
	11:43	35	33	24	0
	11:59	35	30	21	0
04/12/2019	21:10	35	42	33	0
	22:00	35	39	30	0

Date	Time	Noise Limits	TN2 Mine $L_{Aeq}$ Noise Level (dB)	573b Coomalgalah Mine $L_{Aeq}$ Noise Level (dB)	
		$LA_{eq,15 min}$	Measured Mine Contribution	Commensurate Mine Compliance Level	Exceedance
05/12/2019	22:18	35	37	28	0
	22:35	35	37	28	0
	22:51	35	38	29	0
	13:14	35	<30	<21	0
	13:30	35	32	23	0
	14:32	35	32	23	0
	21:19	35	41	32	0
	21:34	35	41	32	0
	22:00	35	38	29	0
	22:16	35	37	28	0
	22:32	35	36	27	0
	22:48	35	<35	<26	0

**Table 4-3 Summary of noise assessment at TN3**

Date	Time	TN3			
		Noise Limits	Mine L <sub>Aeq</sub> Noise Level (dB)		
		LA <sub>eq,15 min</sub>	Measured Mine Contribution	Additional LF Penalty	Exceedance
02/12/2019	00:44	35	<7 (IA) <sup>1</sup>	-	0
	00:59	35	<7 (IA) <sup>1</sup>	-	0
	01:14	35	<7 (IA) <sup>1</sup>	-	0
	01:29	35	<7 (IA) <sup>1</sup>	-	0
03/12/2019	10:52	35	<14 (IA) <sup>1</sup>	-	0
	01:00	35	<7 (IA) <sup>1</sup>	-	0
	01:15	35	<7 (IA) <sup>1</sup>	-	0
	01:30	35	<7 (IA) <sup>1</sup>	-	0
	01:45	35	<7 (IA) <sup>1</sup>	-	0
04/12/2019	10:30	35	<16 (IA) <sup>1</sup>	-	0
	00:49	35	<7 (IA) <sup>1</sup>	-	0
	01:05	35	<7 (IA) <sup>1</sup>	-	0
	01:22	35	<6 (IA) <sup>1</sup>	-	0
	01:39	35	<7 (IA) <sup>1</sup>	-	0
05/12/2019	09:10	35	<19 (IA) <sup>1</sup>	-	0
	09:25	35	<19 (IA) <sup>1</sup>	-	0
	09:40	35	<18 (IA) <sup>1</sup>	-	0
	09:55	35	<20 (IA) <sup>1</sup>	-	0
	10:10	35	<17 (IA) <sup>1</sup>	-	0
	10:25	35	<17 (IA) <sup>1</sup>	-	0
	19:58	35	<19 (IA) <sup>1</sup>	-	0
	00:45	35	<13 (IA) <sup>1</sup>	-	0
	01:01	35	<12 (IA) <sup>1</sup>	-	0
	01:18	35	<13 (IA) <sup>1</sup>	-	0
06/12/2019	01:34	35	<13 (IA) <sup>1</sup>	-	0
	09:30	35	<14 (IA) <sup>1</sup>	-	0
	09:46	35	<13 (IA) <sup>1</sup>	-	0
	10:00	35	<12 (IA) <sup>1</sup>	-	0
	10:16	35	<12 (IA) <sup>1</sup>	-	0
	10:33	35	<12 (IA) <sup>1</sup>	-	0

<sup>1</sup> Where mine noise was inaudible throughout the entire measurement, it is assumed that the contribution is less than 10 dB below the measured L<sub>Aeq</sub>.



**Table 4-5 Summary of noise assessment at TN4**

Date	Time	TN4			
		Noise Limits	Mine L <sub>Aeq</sub> Noise Level (dB)		
		LA <sub>eq,15 min</sub>	Measured Mine Contribution	Additional LF Penalty	Exceedance
02/12/2019	23:32	35	<13 (IA) <sup>1</sup>	-	0
	00:11	35	<6 (IA) <sup>1</sup>	-	0
	00:27	35	<7 (IA) <sup>1</sup>	-	0
03/12/2019	13:32	35	<20 (IA) <sup>1</sup>	-	0
	23:36	35	<7 (IA) <sup>1</sup>	-	0
	23:48	35	<7 (IA) <sup>1</sup>	-	0
	00:04	35	<6 (IA) <sup>1</sup>	-	0
04/12/2019	00:21	35	<6 (IA) <sup>1</sup>	-	0
	23:27	35	<7 (IA) <sup>1</sup>	-	0
	23:43	35	<7 (IA) <sup>1</sup>	-	0
	23:58	35	<6 (IA) <sup>1</sup>	-	0
	10:38	35	<13 (IA) <sup>1</sup>	-	0
05/12/2019	10:52	35	<13 (IA) <sup>1</sup>	-	0
	11:13	35	<13 (IA) <sup>1</sup>	-	0
	11:30	35	<12 (IA) <sup>1</sup>	-	0
	11:46	35	<14 (IA) <sup>1</sup>	-	0
	12:02	35	<18 (IA) <sup>1</sup>	-	0
	20:25	35	<42 (IA) <sup>1</sup>	-	0
	20:41	35	<42 (IA) <sup>1</sup>	-	0
	23:30	35	<19 (IA) <sup>1</sup>	-	0
	23:46	35	<17 (IA) <sup>1</sup>	-	0
	00:02	35	<13 (IA) <sup>1</sup>	-	0

<sup>1</sup> Where mine noise was inaudible throughout the entire measurement, it is assumed that the contribution is less than 10 dB below the measured L<sub>90</sub>.

Noise from the mine must not exceed 45 dB(A) L1 (1 min) between 10 pm and 7 am. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the mine. The results of the sleep disturbance monitoring show that the measured L1 (1 min) noise level did not exceed the sleep disturbance criterion.

**Table 4-2 Comparison of maximum noise events between TN2 and 573b Coomalgalah**

Date	Time	Noise Limits	TN2		573b Coomalgalah	
			Mine $L_{Amax}$ Noise Level (dB)		Mine $L_{Amax}$ Noise Level (dB)	
		$LA_{1,1}$ <i>min</i>	Noise Source	Measured Level	Commensurate Mine Compliance Level	Exceedance
02/12/2019	22:39	45	Horn	46	37	0
	22:55	45	Horn	43	34	0
03/12/2019	22:00	45	Horn	44	35	0
	22:15	45	Horn	50	41	0
	22:31	45	Horn	44	35	0
	22:48	45	-	NM	-	0
	22:00	45	Horn	48	39	0
04/12/2019	22:18	45	Horn	45	36	0
	22:35	45	Horn	45	36	0
	22:51	45	Digger	50	41	0
	22:00	45	-	NM	-	0
05/12/2019	22:16	45	Engine	44	35	0
	22:32	45	-	NM	-	0
	22:48	45	-	NM	-	0

**Table 4-4 Summary of maximum noise events at TN3**

Date	Time	TN3			
		Noise Limits		Mine L <sub>Amax</sub> Noise Level (dB)	
		LA <sub>1,1 min</sub>	Noise Source	Measured Level	Exceedance
02/12/2019	00:44	45	-	I/A	0
	00:59	45	-	I/A	0
	01:14	45	-	I/A	0
	01:29	45	-	I/A	0
03/12/2019	01:00	45	-	I/A	0
	01:15	45	-	I/A	0
	01:30	45	-	I/A	0
	01:45	45	-	I/A	0
04/12/2019	00:49	45	-	I/A	0
	01:05	45	-	I/A	0
	01:22	45	-	I/A	0
	01:39	45	-	I/A	0
05/12/2019	00:45	45	-	I/A	0
	01:01	45	-	I/A	0
	01:18	45	-	I/A	0
	01:34	45	-	I/A	0

**Table 4-6 Summary of maximum noise events at TN4**

Date	Time	TN4			
		Noise Limits	Mine L <sub>Amax</sub> Noise Level (dB)		
		LA <sub>1,1 min</sub>	Noise Source	Measured Level	Exceedance
02/12/2019	23:32	45	-	IA	0
	00:11	45	-	IA	0
	00:27	45	-	IA	0
03/12/2019	23:36	45	-	IA	0
	23:48	45	-	IA	0
	00:04	45	-	IA	0
	00:21	45	-	IA	0
04/12/2019	23:27	45	-	IA	0
	23:43	45	-	IA	0
	23:58	45	-	IA	0
05/12/2019	23:30	45	-	IA	0
	23:46	45	-	IA	0
	00:02	45	-	IA	0
	00:17	45	-	IA	0

The real time noise monitor located on the “Coomalgah” property remains a management tool so the noise criteria are not applicable at that site. Level of noise recorded at that location is managed according to the noise management plan and trigger action response plan.

# Blast Monitoring

## Blasting Results

Since 2006, there have been 939 blasts (until 31/01/2020) at TCM.

There has been no exceedance of criterion since the last meeting for ground vibration. There have been three exceedances of blasting overpressure since the last meeting with the highest result obtained being 117.5 dB at the privately owned property Coomalgalah recorded on 06/12/19, and the rest recorded at the project related property Tarrawonga. The highest result for ground vibration was 1.36 mm/s recorded at the Coomalgalah monitor on 29/11/2019.

Note the exceedances of overpressure recorded at the project related property Tarrawonga was in accordance with conditions of:

- PA11\_0047 sch3 cond14,
- EPL12365 cond.L5.1 and L5.2,
- ML1579 cond. 11b) and
- ML1693 cond. 10b) that states: "...blast overpressure noise must not exceed 120dB and 115dB in more than 5 % of the total number of blast over 12 month at any occupied dwelling..."

The blast overpressure measured on 6<sup>th</sup> December at the privately owned property Coomalgalah was the first recorded above 115 dB in 75 blasts (equivalent to ~1.3%) over 12 months therefore compliant with the approval and licences listed above.

**Table- 2: Max Peak Overpressure and Ground Pressure for the Quarter**

Monitor Location	Date	Max. Peak Overpressure (dB)	Criterion (dB)	Date	Max. Peak Ground Pressure (mm/s)	Criterion (mm/s)
Tarrawonga*	20/12/19	117.1	N/A	05/11/19	0.9	N/A
Coomalgalah	06/12/19	117.5	120	29/11/19	1.36	10

\*Limit Not applicable according to EPL and PA11\_0047 because project related property.

# Air Quality Monitoring

## Dust Deposition Results

**Table 3** shows deposited dust gauge results over 12 months. All the monitors are located on project related land; as such compliance criteria (4g/m<sup>2</sup>/month) do not apply. Overall deposited dust trends remain steady during the reporting period (refer graph in *Appendix B*)



MONTH	TEMPLEMORE (EB-4)	BOLLOL CREEK STN (EB-5)	AMBARDI (EB-6)	TARRAWONGA (EB-7)	THUIN (EB-8)	PINE GROVE (EB-9)	TARRAWONGA MINE (EB-10)	TARRAWONGA MINE (EB-11)	TARRAWONGA MINE (EB-14)	TARRAWONGA MINE (EB-15)	JERALONG NORTH (EB-16)
Dec-18	7.9	4.4	5.0	1.8	4.3	3.3	6.4	4.7	3.2	4.8	8.6
Jan-19	6.6	4.4	5.2	2.1	4.7	3.7	6.1	4.6	3.0	4.7	3.7
Feb-19	6.4	4.7	5.4	2.3	4.9	3.7	5.4	4.6	3.4	4.8	3.7
Mar-19	6.5	4.8	5.5	2.4	4.2	3.4	5.8	4.6	3.4	4.7	3.7
Apr-19	6.2	4.6	5.4	2.4	4.2	3.4	5.5	4.5	3.4	4.7	3.5
May-19	6.3	4.7	5.5	2.4	4.1	3.4	5.5	4.5	3.5	4.8	3.3
Jun-19	6.6	4.9	5.6	2.5	4.2	3.3	5.5	4.4	3.6	5.2	3.3
Jul-19	6.9	5.0	5.7	2.5	4.2	3.2	5.6	4.3	3.6	5.2	3.4
Aug-19	5.6	5.0	5.7	2.5	4.1	3.3	5.5	4.4	3.7	5.2	3.4
Sep-19	5.4	4.9	4.9	2.5	4.2	3.2	5.4	4.3	3.6	5.1	3.3
Oct-19	5.2	4.4	4.8	2.4	4.3	3.2	5.1	4.3	3.5	5.0	3.3
Nov-19	5.3	4.4	3.9	2.4	4.3	2.9	4.6	4.2	2.9	4.8	3.3
Dec-19	5.3	4.8	4.1	2.5	4.5	2.6	4.8	3.8	2.9	4.8	3.5
Jan-20	3.5	29.5*	3.5	2.5	3.5	6.8	10.9	2.8	2.5	3.3	2
<b>12 MONTH ROLLING AVERAGE</b>	3.8	4.4	3.3	2.2	4.0	2.4	4.9	3.6	3.0	4.5	2.9

\*Sample was contaminated therefore retested -analysed with an optical microscope. Results showed that coal formed less than 10% of total dust .Value was not included in the annual rolling average.

**Table 3 – Deposited Dust Gauge Results [g/m<sup>2</sup>/month]**

## High Volume Air sampler (PM<sub>10</sub>) Results

The High Volume Air Sampler (HVAS) installed at Coomalgalah property monitors level of Particle Matter under 10 micron (PM<sub>10</sub>). It operates for 24hr every 6 days. **Table 4** shows all the 24hr average values recorded for this quarter. Elevated levels of dust recorded were investigated and it was found that wind direction, grazing and farming activity near the monitor location, regional dust (as per the Regional Air Quality Index (RAQI)) or smoke from bushfires were direct causes of the elevated level of dust recorded. TCM notified the Department of Planning Infrastructure and Environment (DPIE) and will include and discuss those results in the Annual Review report.

**Table- 4: HVAS PM<sub>10</sub> 24 hr average levels for the Quarter**

Date	24hr averaged PM <sub>10</sub> (µg/m <sup>3</sup> )	Criterion 24hr average (µg/m <sup>3</sup> )	Comments
4/11/2019	13.3	<b>50</b>	Nil
10/11/2019	36.8		Nil
16/11/2019	31.7		Nil
22/11/2019	176		Determined as not mine related. Grazing Activities reported on field sheet. OEH website registered a RAQI value of 243 µg/m <sup>3</sup> .
28/11/2019	114		Determined as not mine related. Grazing Activities reported on field sheet. OEH website registered a RAQI value of 215 µg/m <sup>3</sup> . Weather Station recorded winds from a W direction.
4/12/2019	115.0		Determined as not mine related. Grazing Activities reported on field sheet. OEH website registered a RAQI value of 63 µg/m <sup>3</sup> .
10/12/2019	155.0		Determined as not mine related. 'Slight wind – dry and dusty' recorded on field sheet. OEH website registered a RAQI value of 372 µg/m <sup>3</sup> .
16/12/2019	641.0		Determined as not mine related. Grazing Activities reported on field sheet. OEH website registered a RAQI value of 171 µg/m <sup>3</sup> . Weather Station recorded winds from a S direction with an average 4.1m/s and gusts above 8m/s
22/12/2019	813.0		Determined as not mine related. 'Grazing Activities, smoke haze and slight wind' reported on field sheet. OEH website registered a RAQI value of 393, while D2 TEOM recorded 109.6 µg/m <sup>3</sup> . Weather Station recorded winds from a S, SE direction with 19% of the day being >6m/s and an average of 3.74m/s.
28/12/2019	141.0		Determined as not mine related. Grazing Activities reported on field sheet. OEH website registered a RAQI value of 98 µg/m <sup>3</sup> . Weather Station recorded winds from a SSE direction.
06/01/2020	222.0		Determined as not mine related. Grazing Activities reported on field sheet. OEH website registered a RAQI value of 194 µg/m <sup>3</sup> . Weather Station recorded winds from SE, E & W directions.
09/01/2020	757.0		Determined as not mine related. Grazing activity noted in the field sheet by the contractor. RAQI reported 220 µg/m <sup>3</sup> . Weather station recorded winds coming from NE-W.
15/01/2020	269.0		Determined as not mine related. 'Windy Day' noted in the field sheet by the contractor. Weather station recorded winds coming from NE & E.
21/01/2020	100		Determined as not mine related. Recent Rain noted in field sheet. RAQI noted 155 µg/m <sup>3</sup> .
27/01/2020	47.7		Nil

S=South,E=East,N=North and W=West

### Real-time Air monitoring (PM<sub>10</sub>)

According to the current Air Quality and Greenhouse gas Management Plan, the real time air quality unit (TEOM) installed at the “Flixton” property monitors PM<sub>10</sub> levels in ambient air. It is an operational management tool and dust levels nearing or reaching the nominated criteria will trigger actions onsite to assess the source of dust and modify operations if it is determined to be related to Tarrawonga operations.



*TEOM installed at Flixton property*

Three portable dust (PM<sub>10</sub>) monitors have improved the real-time dust monitoring network and assist the operation to mitigate any potential dust generated by the operation.



*Portable and real-time dust monitor installed at TCM in November 2018*

# Water Monitoring

## Groundwater

Routine groundwater monitoring was undertaken in December 2019 and showed in **Table 5** (refer to graphs in *Appendix C*).

**Table 5- Groundwater results Summary**

Site	Date	SWL (mbgl)	pH (units)	Elect. Conductivity (µS/cm)
<b>MW1</b>	December 2018	7.03	7.8	3,420
	March 2019	7.78	8.1	3,430
	June 2019	7.22	8.0	3,320
	September 2019	7.32	8.0	3,440
	December 2019	7.35	8.0	3,510
<b>MW2</b>				
	December 2018	3.53	6.8	545
	March 2019	4.34	7.1	560
	June 2019	3.41	7.0	461
	September 2019	4.01	6.9	530
	December 2019	4.65	7.1	560
<b>MW4</b>				
	December 2018	9.46	7.0	4,610
	March 2019	9.58	7.2	4,840
	June 2019	9.41	7.3	3,860
	September 2019	9.62	7.4	3,460
	December 2019	10.14	7.3	3, 530
<b>MW5</b>				
	December 2018	3.41	7.7	2,130
	March 2019	3.41	7.9	1,240
	June 2019	2.91	7.6	1292
	September 2019	2.90	7.8	2,100
	December 2019	3.25	7.8	2,080
<b>MW6</b>				
	December 2018	4.85	7.6	2,200
	March 2019	Casing destroyed	Casing destroyed	Casing destroyed
	June 2019	Casing destroyed	Casing destroyed	Casing destroyed
	September 2019	Casing destroyed	Casing destroyed	Casing destroyed
	December 2019	Casing destroyed	Casing destroyed	Casing destroyed
<b>MW7</b>				
	December 2018	105.01	No sample (Grey mud)	No sample
	March 2019	Dry	Dry	Dry
	June 2019	Dry	Dry	Dry
	September 2019	Dry	Dry	Dry
	December 2019	Dry	Dry	Dry
<b>MW8</b>				
	December 2018	13.29	Casing blocked	Casing blocked
	March 2019	13.66	Casing blocked	Casing blocked
	June 2019	13.69	Casing blocked	Casing blocked
	September 2019	13.77	Casing blocked	Casing blocked
	December 2019	13.76	Casing blocked	Casing blocked

## Surface Water

According to the BTM Complex strategy, water sharing opportunity is continuously discussed between the three mines. TCM continue assessing options to source additional water in order to maintain the mine in operation in the long run.

# Rehabilitation and Clearing

## Rehabilitation

Operations and Environmental departments work together to develop and implement a more efficient rehabilitation program. The aim is to enhance the quantity of areas rehabilitated.

TCM is currently assessing proposal from tree planting contractors to commence the planting campaign 2020. This campaign is expected to take place before June and species targeted include *Eucalyptus albens*, *Eucalyptus blakelyi*, *Eucalyptus crebra*, *Eucalyptus melliodora*, *Eucalyptus pilligaensis*, *Eucalyptus populanea*, *Eucalyptus macrocarpa*, *Eucalyptus Melanophloia*, *Eucalyptus Crebra*, *Eucalyptus Dealbata* and *Eucalyptus Dwyeri*and.

A trial (i.e. bud bank trial or similar) will be conducted during tree clearing activities 2020. The objective of the trial is to employ soil handling techniques targeted at achieving good establishment of woody plants from the bud bank, and compare these with the establishment using current soil handling techniques.

## Clearing

The next tree clearing campaign will be conducted between February and April 2020.

# Complaints

No complaint was received during the quarterly period.



# Environmental Management Plans

TCM are addressing additional comments received in January 2020 and expect to submit updated Management Plans between March and April 2020 including:

- Noise Management Plan
- Blast Management Plan
- Air Quality Greenhouse Gas Management Plan and
- Water Management Plan

## BTM Water Strategy

The Water Management Strategy was approved by DPIE. However the three mines continue to work with a groundwater expert to address Natural Resource Access Regulator's (NRAR) comments related to the groundwater model. Agencies agreed the action plan and timeframe proposed by the BTM mines to address and submit a revised Water strategy and an updated BTM groundwater model.

# Annual and Compliance Reporting

## Annual Review and Annual Return Reports

Annual Review (AR) report for 2019 is due for submission by 30<sup>th</sup> March 2020. The next Annual Return 2019 was submitted before 8<sup>th</sup> March.

## Annual Compliance EPBC statement

Annual Compliance EPBC statement for will be prepared and submitted in Q2 2020.

# Compliance Audit- EPBC

In January 2020, the company Environmental Resources Management (ERM) was commissioned and approved by Department of Environment and Energy (DoEE) to conduct a compliance audit. The audit report showed that TCM complied with all the conditions specified in the approval (EPBC 2011/5923).

# Approval and Licencing

Mining Operations Plan (MOP) Amendment E that includes minor changes essential from a mine planning and safety aspect was approved in January 7.

Early January, the EPA approved a Variation of Environment Protection Licence (EPL12365). This Variation addresses recent monitoring network changes.

TCM submitted a Modification of Project Approval (PA11\_0047) regarding "temporary water haulage" and DPIE is currently assessing it. The Modification do not propose to change the mining operation or any components of the mine itself, nor will materially alter the operational workforce.

# Environmental Improvement and Initiatives

## Dust Management

TCM have engaged the company Dust a Side to provide advice and solution to minimise potential fugitive dust generated by exposed surfaces such as haul roads. Since end of April 2018, TCM have been monitoring the results and trying to improve the spraying and mixing techniques. The product used is totally organic, has no corrosive chloride compounds, and is environmentally friendly and readily biodegradable. Usage of that product on mine haul truck roads is ongoing.

## Water Management

TCM and Dust a Side investigate options and products to reduce water used for dust mitigation.

## Noise Management

The portable noise monitor was relocated few hundreds meter away from farming/ grazing activity zone at Coomalgah and a new fence was installed around it.

## Rehabilitation

TCM continues to use an All-Terrain Vehicle (ATV) to water the rehabilitated areas and the trees recently planted. In 2018, that initiative allowed to achieve a high survival rate despite prolonged dry weather condition.

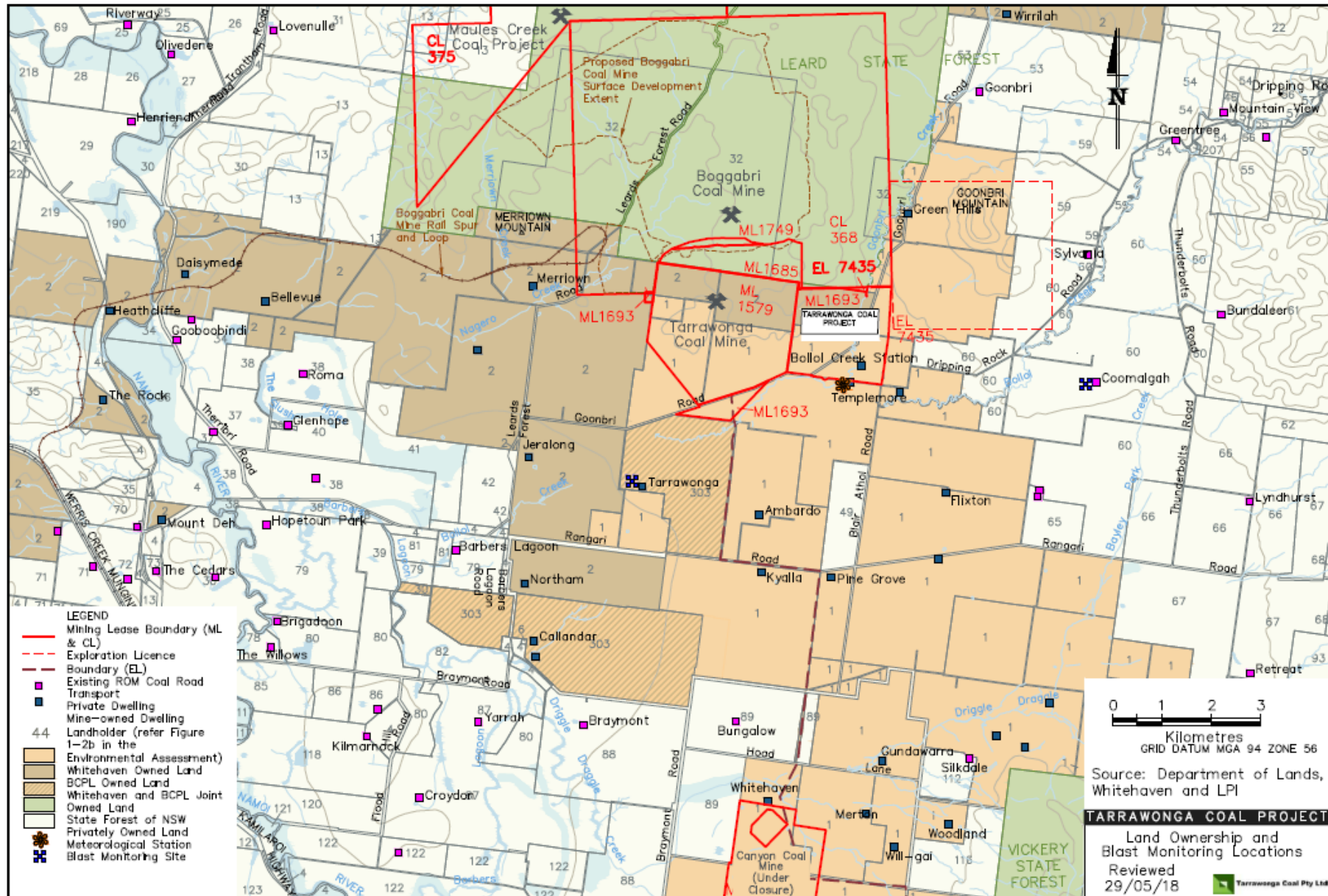


*ATV used in the rehabilitation areas*

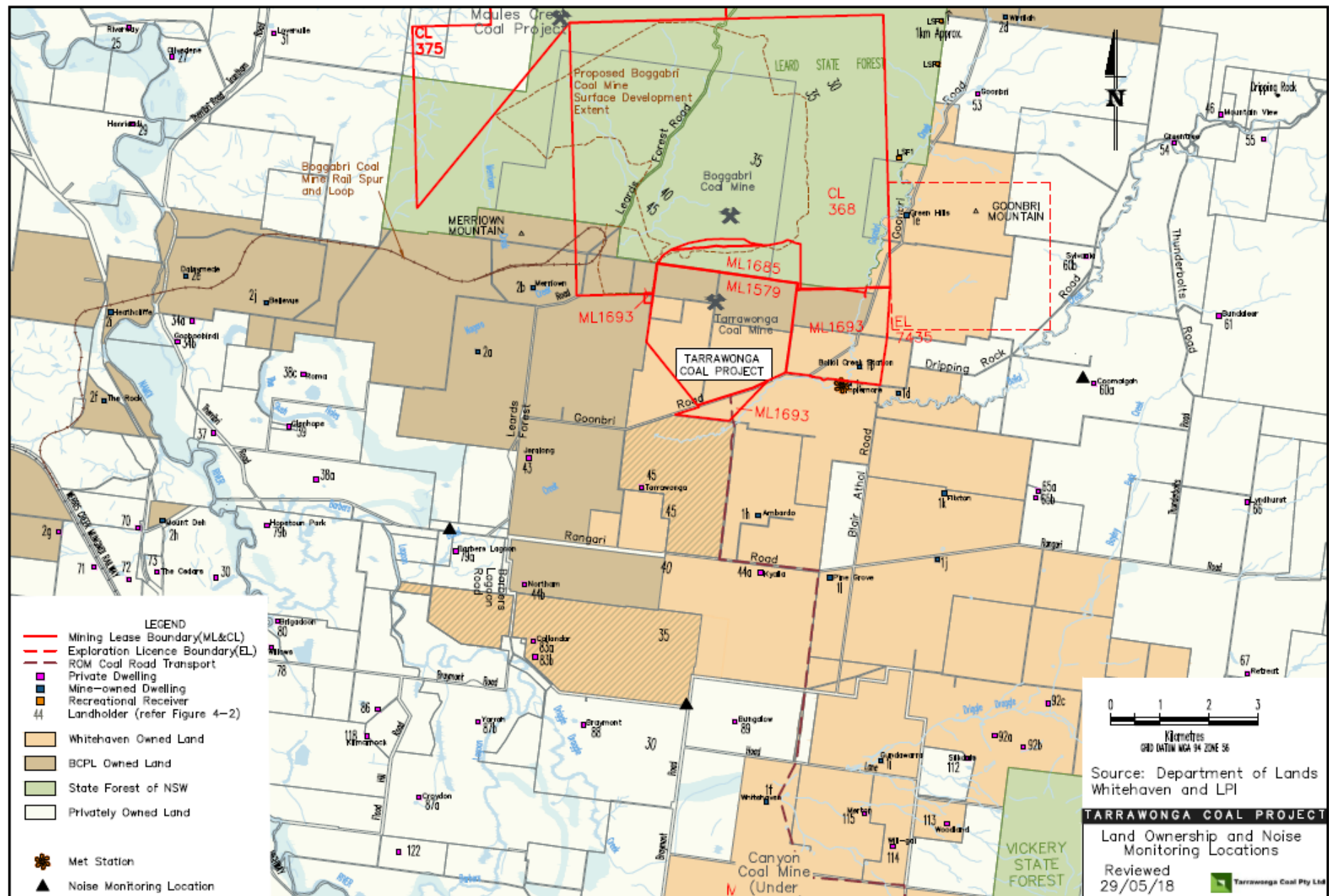
# Appendix A

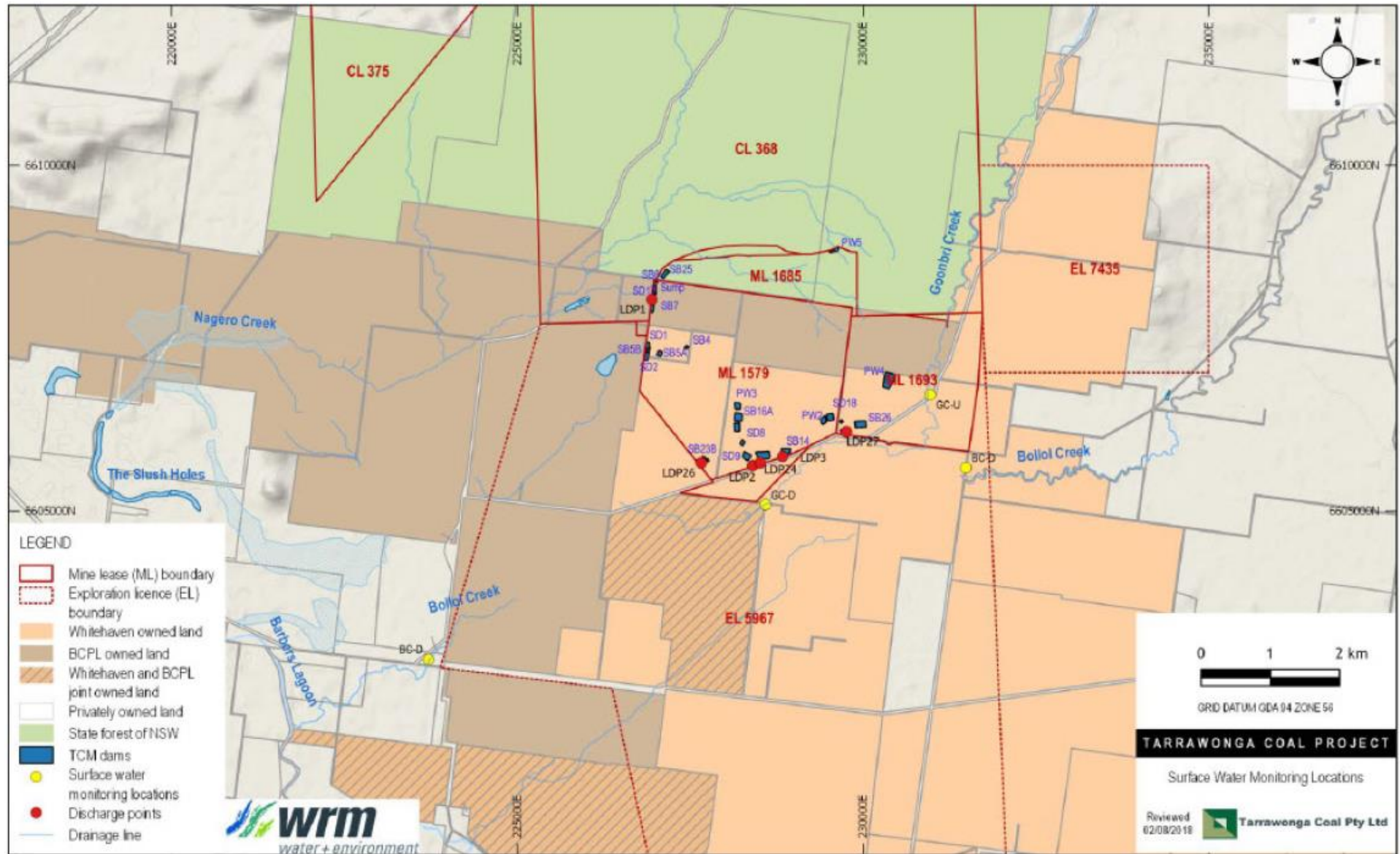




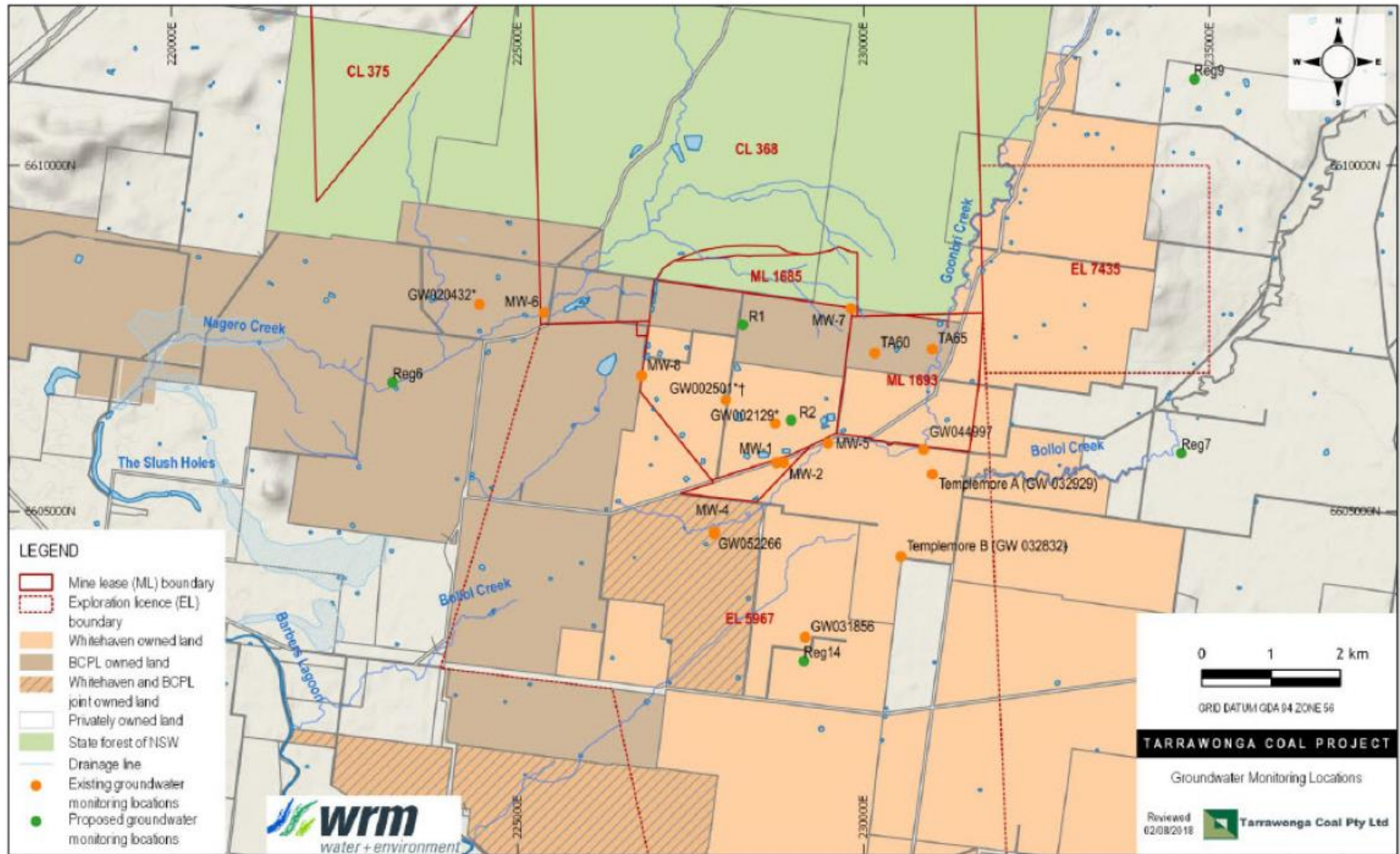




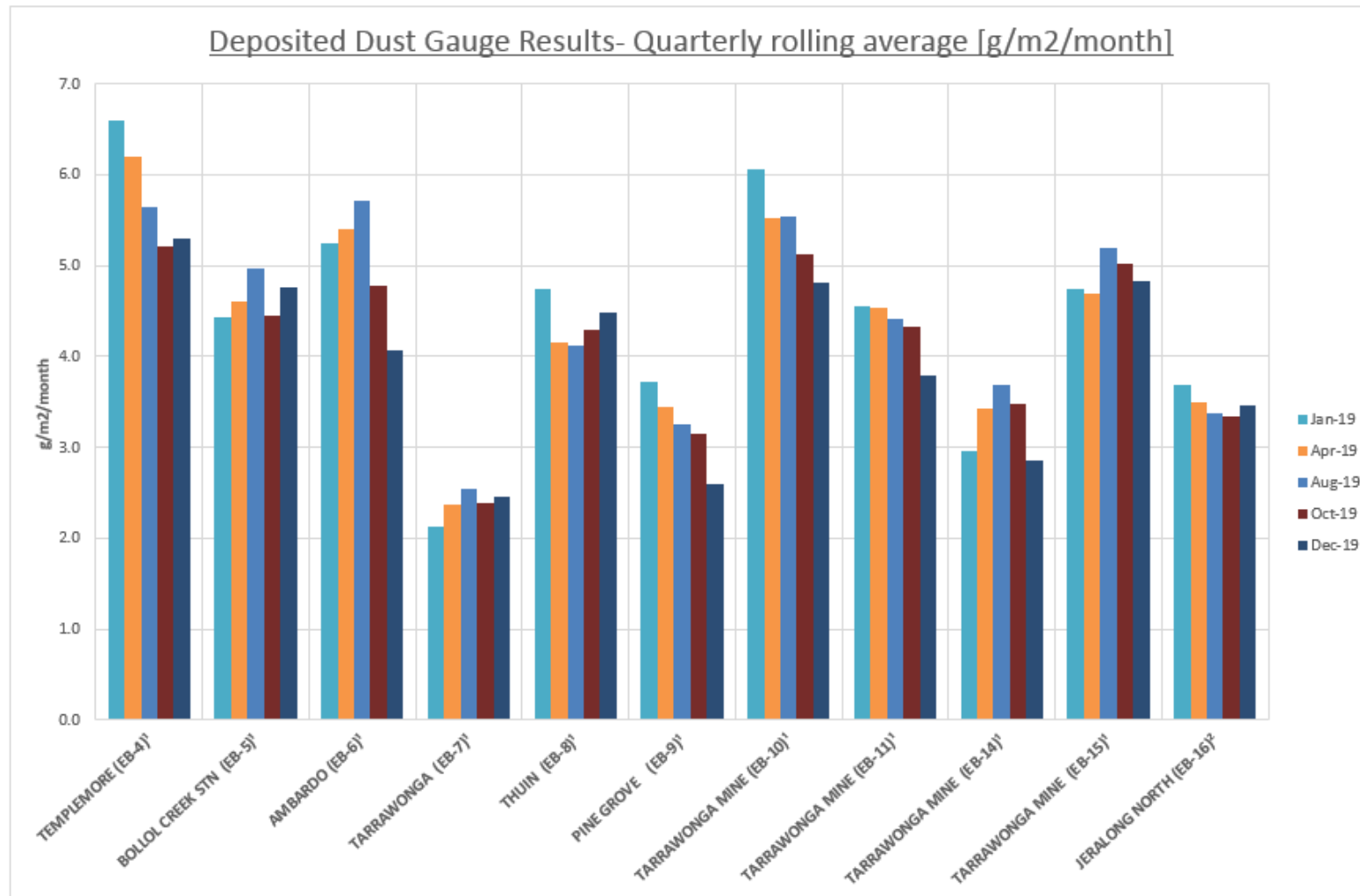






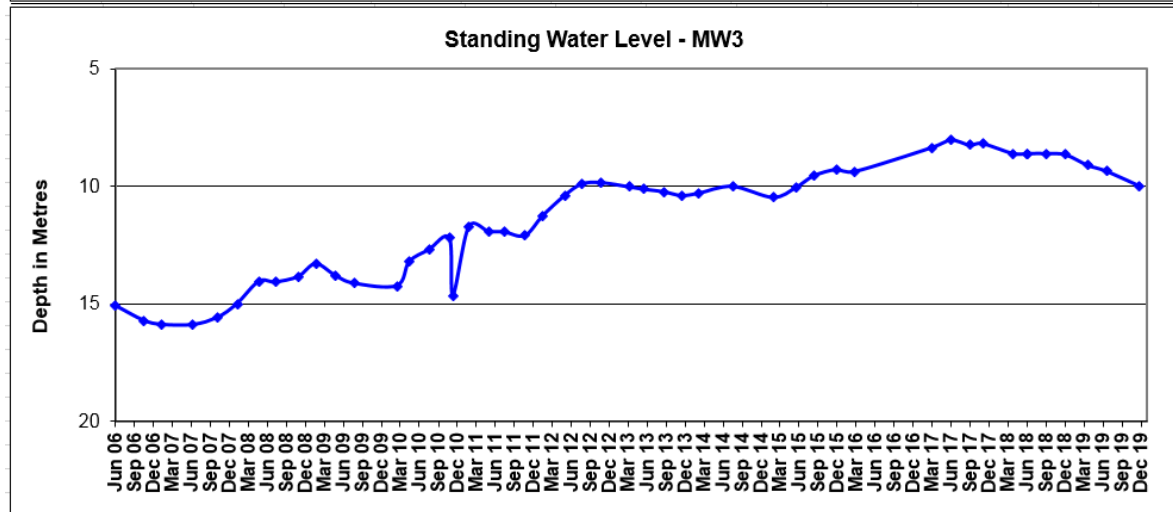
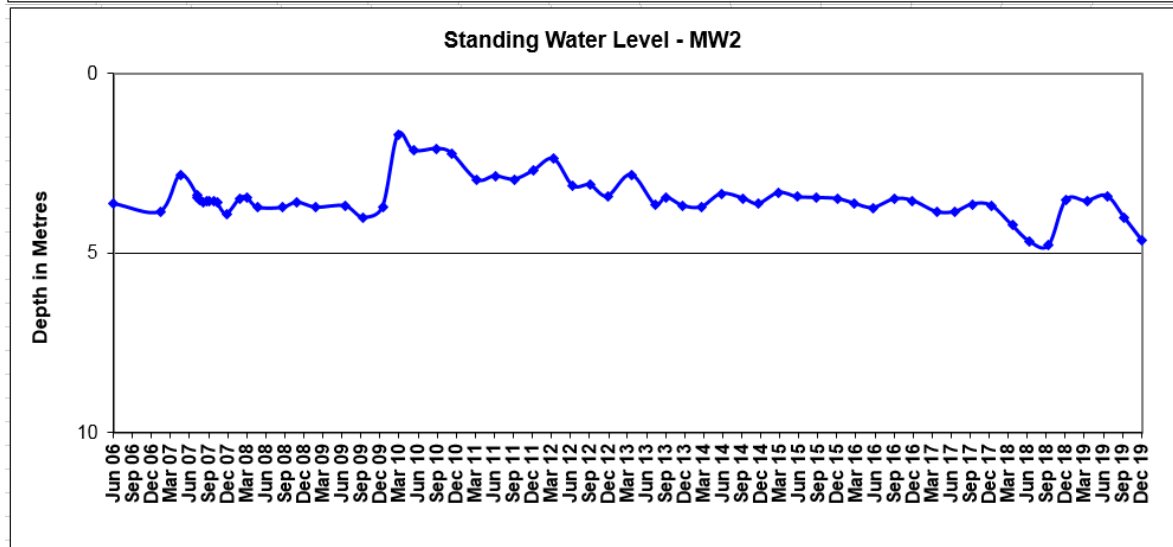
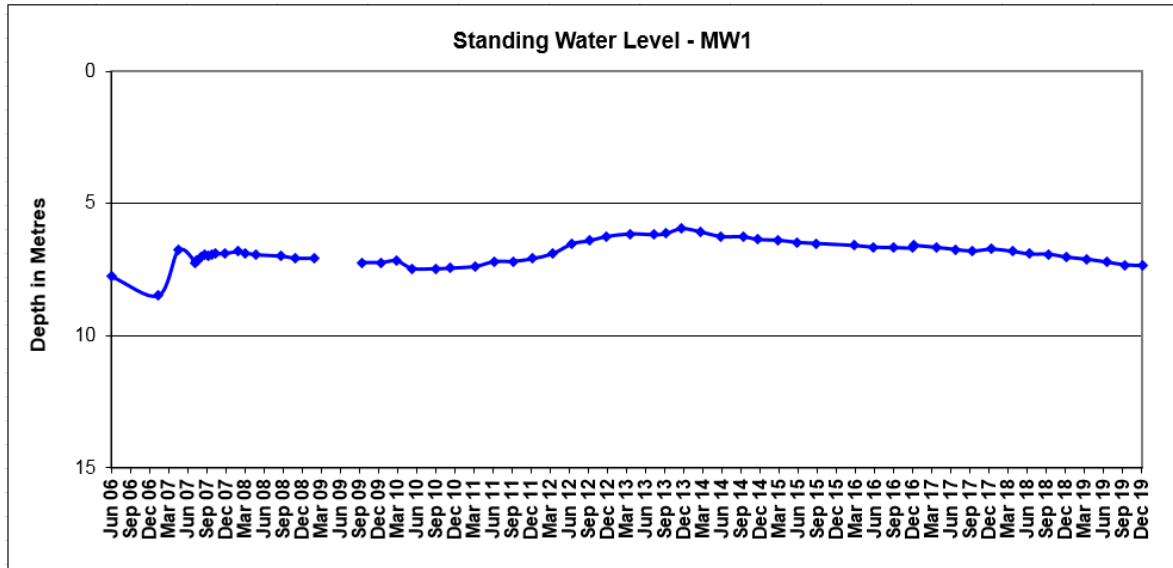


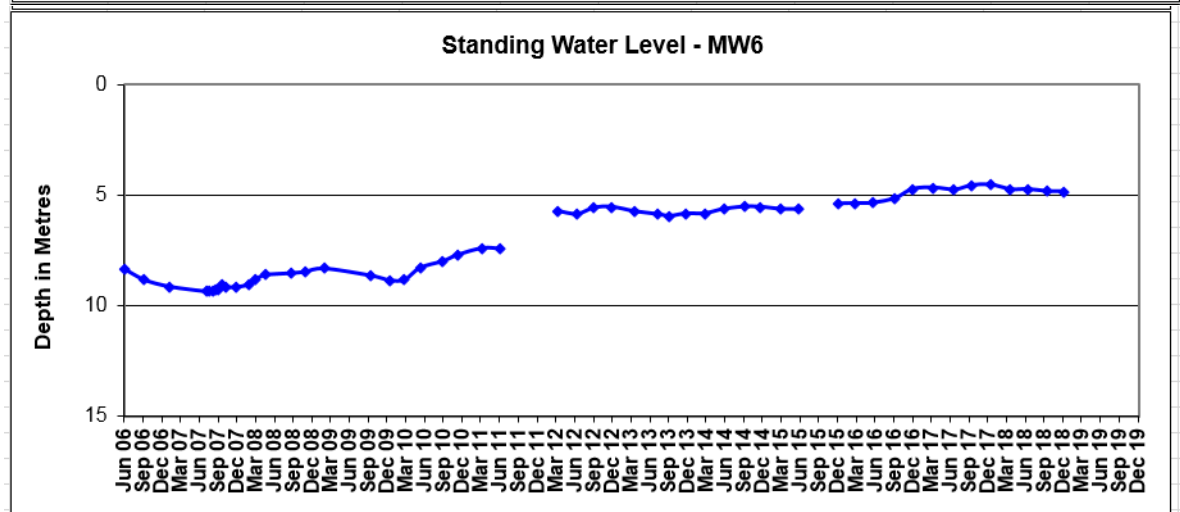
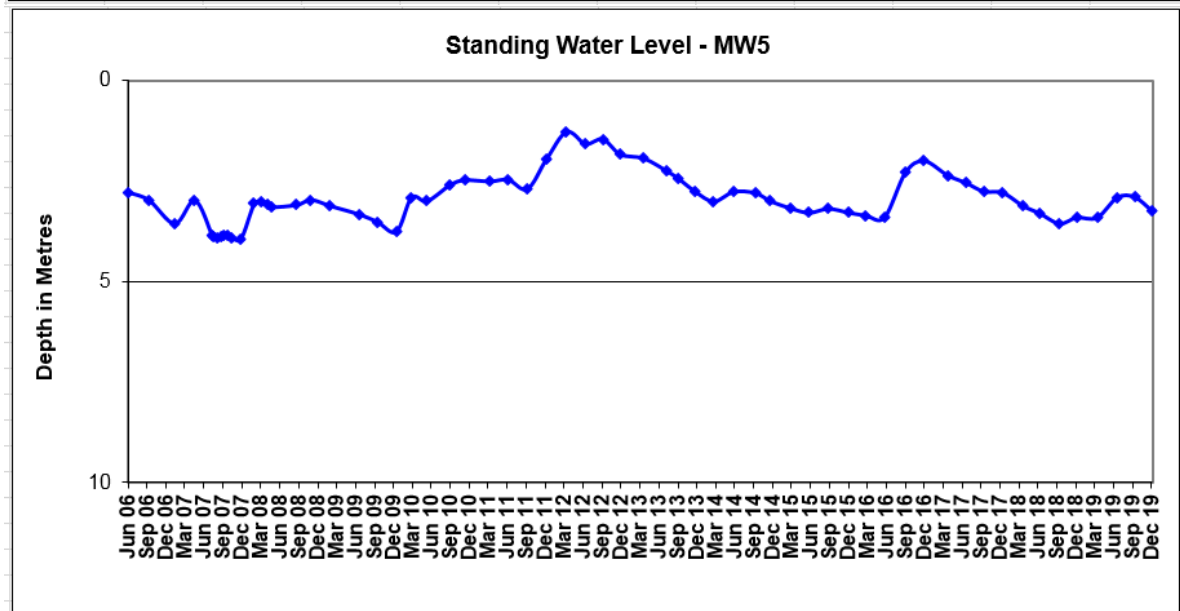
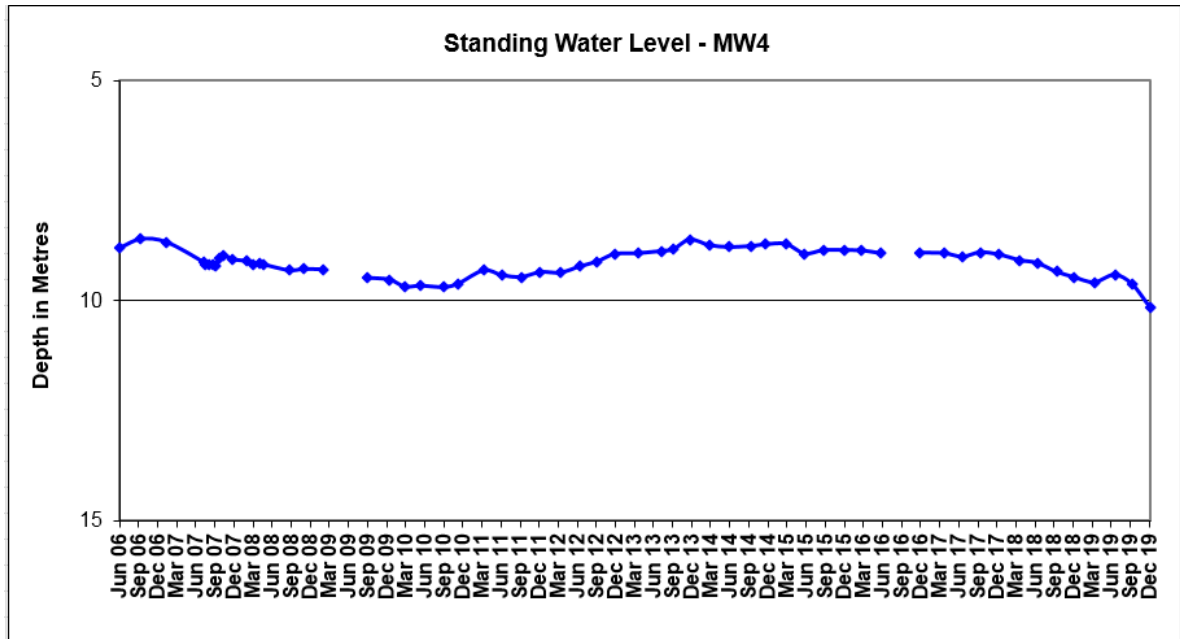
## Appendix B





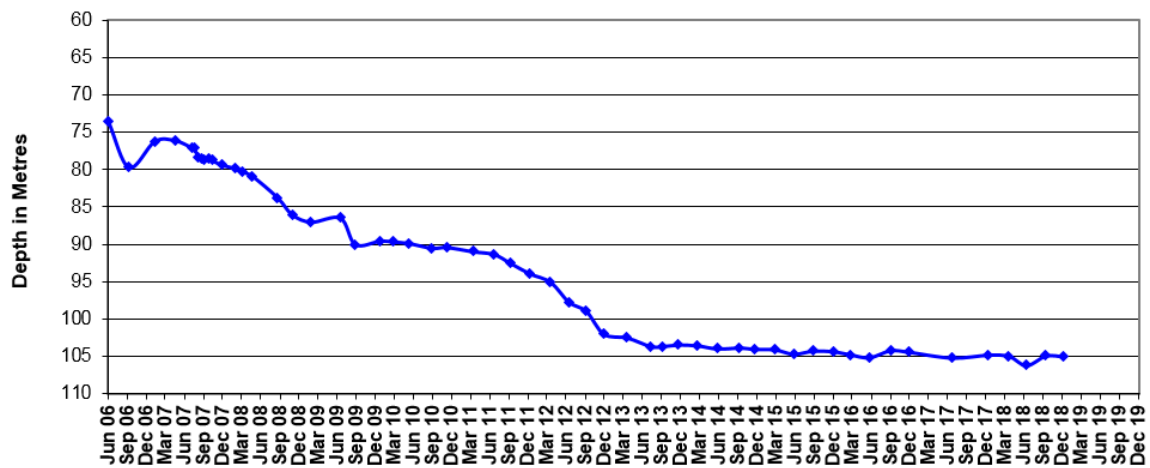
## Appendix C



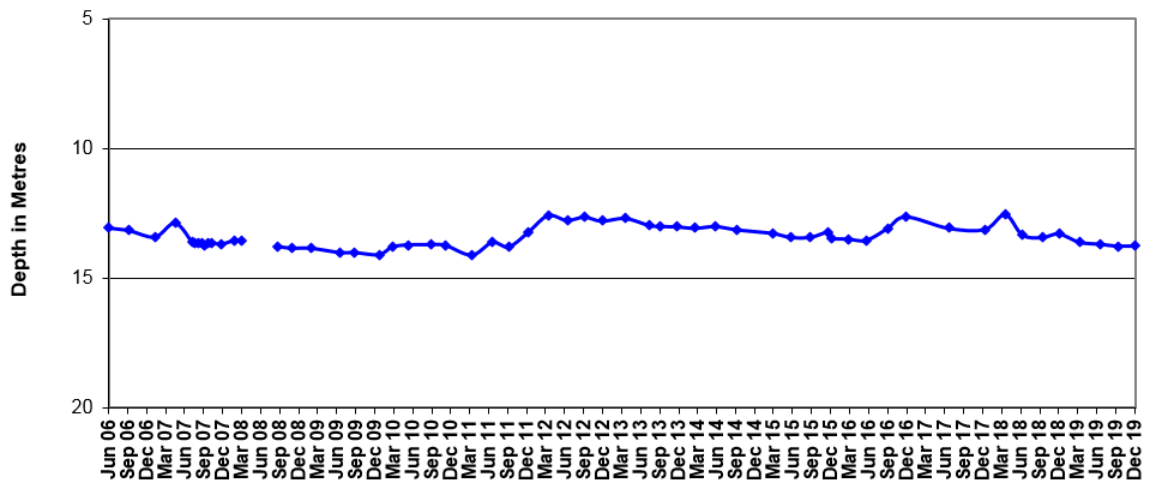


Not monitored anymore- casing destroyed

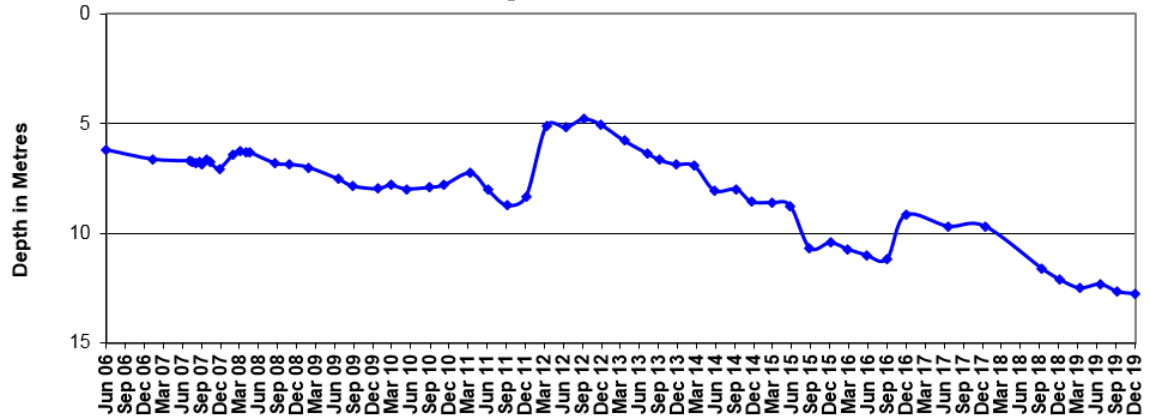
Standing Water Level - MW7

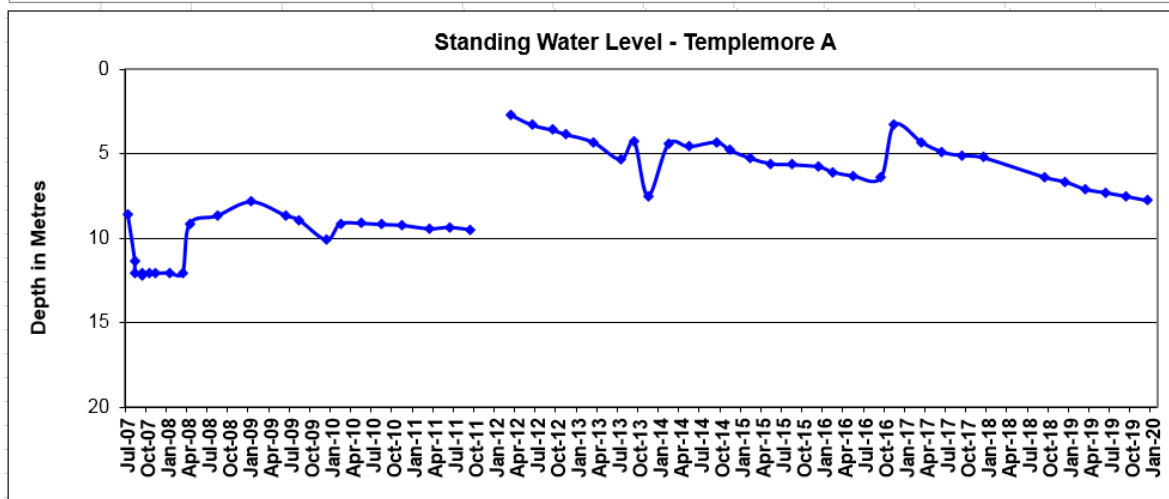
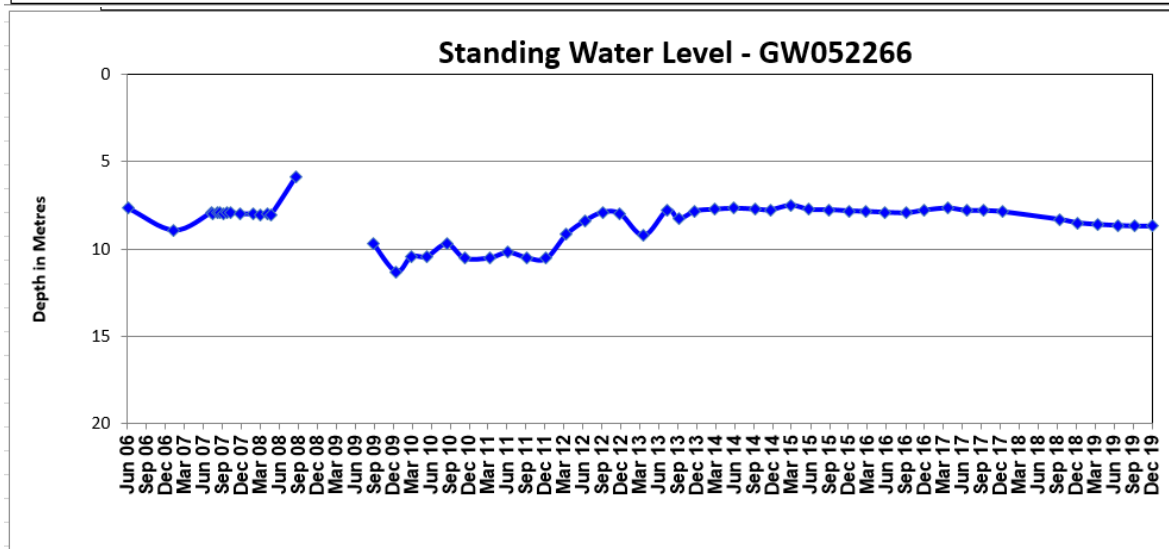
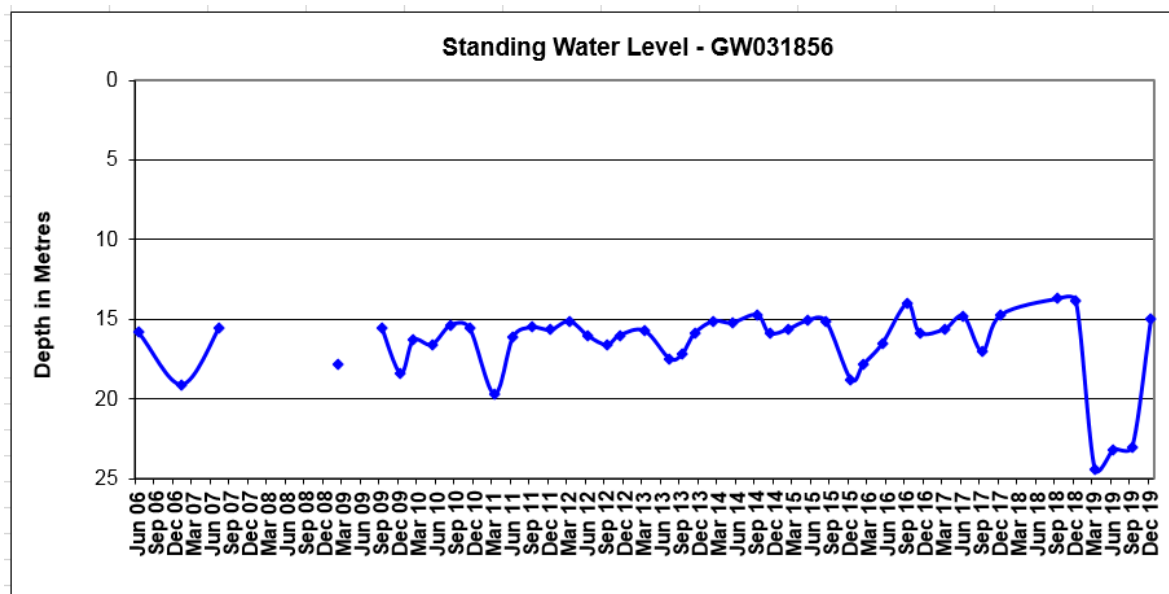


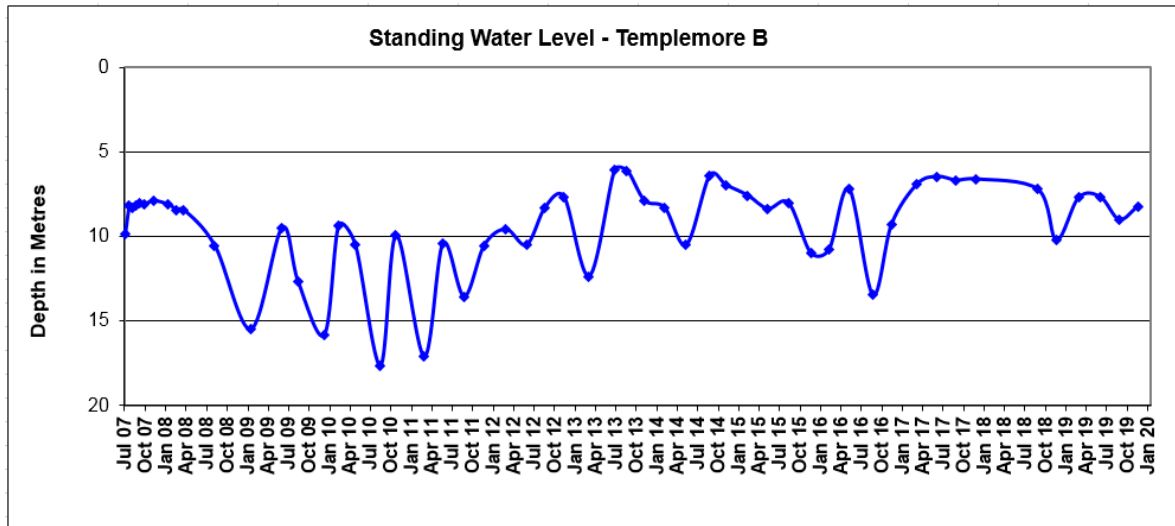
Standing Water Level - MW8



Standing Water Level - GW044997







# Minutes of the 59<sup>th</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	13 <sup>th</sup> March 2020 between 10:00AM- 12:00 PM		
Venue	Tarrawonga Coal Mine (TCM), meeting room		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

1. Present and Apologies	<u>Present:</u> Mr David Ross (DR)- Independent Chairman, Mr Robert Hooke (RH), Gunnedah Shire council Representative Mrs Cath Collyer (CC), Community Representative, Mr John Hamson (JHa), Operations Manager-TCM, Mr Sebastien Moreno (SM)- Environmental Superintendent- TCM,		
	<u>Apologies:</u> Mr Andrew Johns (AJ), Gunnedah Shire Council Representative. Mr Cameron Staines (CS), Narrabri Shire council Representative, Mrs Colleen Fuller (CF), Community Representative, Mrs Rebecca Ryan (RR)- Community Representative, Mr David Moses (DM), Gunnedah Shire council Representative Mrs Julie Heiler (JH), Community Representative,	DR- to contact NSC and confirm the name of CCC member alternate when Cameron an apology.	



# Minutes of the 59<sup>th</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	13 <sup>th</sup> March 2020 between 10:00AM- 12:00 PM		
Venue	Tarrawonga Coal Mine (TCM), meeting room		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

2. Declaration of Pecuniary or Non-Pecuniary Interests	DR- declared that he is paid a fee for participation as Independent Chairman		
3. Previous Minutes Actions	JHa- queried whether JH will continue to be attending TCCC meeting.	DR- to discuss with JH to confirm her position regarding her role as CCC member.	complete
	DR- Annual review report to discuss CCC meeting performance and format.	DR- to prepare an annual review report and CCC Members to review, prepare questions and share ideas at the next meeting	
4. Business Arising	<p>CC- asked about replacement for Community and External relations Group Manager to attend TCM CCC meeting.</p> <p>JHa- Darren Swain was promoted Community Group Manager with a strong focus on MCCM and VEP but WHC is also seeking a second Community Group Manager. The accountabilities between those two Group Managers and the new Community and External relation structure has still to be confirmed. No update</p>		

# Minutes of the 59<sup>th</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	13 <sup>th</sup> March 2020 between 10:00AM- 12:00 PM		
Venue	Tarrawonga Coal Mine (TCM), meeting room		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

5. Mine Progress Report	<p>JHa:</p> <ul style="list-style-type: none"> <li>- On track with production rate despite more than 300mm rains recorded onsite since January,</li> <li>-Safety- LTI free-YTD 472 days,</li> <li>-Some of the upcoming projects include: <ul style="list-style-type: none"> <li>- Enlargement of dams</li> <li>- Reshaping the Southern Emplacement area and start rehabilitation of that section</li> </ul> </li> <li>- ~ 10 operators left TCM and now TCM is recruiting.</li> </ul> <p>RH- What are the requirement to apply?</p> <p>JHa- as a minimum candidates must hold a Green 'P'.</p> <p>TCM is also developing new programs in that space:</p> <ul style="list-style-type: none"> <li>-a new traineeship program for local candidates (i.e.: from NSC and GSC),</li> <li>-a crib relief program for people who look for a part-time or casual position. Those programs are awaiting for a final approval from executive management.</li> </ul>		
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# Minutes of the 59<sup>th</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	13 <sup>th</sup> March 2020 between 10:00AM- 12:00 PM		
Venue	Tarrawonga Coal Mine (TCM), meeting room		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

6. Environmental Monitoring report	<p>SM:</p> <ul style="list-style-type: none"> <li>-Read and explained the Quarterly Environmental Report results.</li> <li>- advised that revised EMPs will be submitted in 2020,</li> <li>- MOP E was approved in January 2020,</li> <li>- Compliance EPBC Audit was conducted in January 2020,</li> <li>-MOD8 (temporary trucking water) was waiting for approval and MOD7 (LOM) to be submitted in 2020,</li> <li>- More than 300mm of rains was recorded onsite since beginning of the year. Most of the dams are full.</li> <li>- Annual Return was submitted and Annual Review report is due for end of March 2020. DPIE advised that elevated PM10 recorded on day of 'adverse weather', were not to be considered in calculation of PM10 annual average.</li> </ul>		
7. General business	<p>CC- expressed her desire to step down from her role with TCCC but once her replacement has been completed.</p> <p>JHa- WHC GM Open Cut Operations wants to attend one of TCCC or BTM-CCC</p>	DR- To start process to recruit new CCC Members and find a replacement for CC.	

# Minutes of the 59<sup>th</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	13 <sup>th</sup> March 2020 between 10:00AM- 12:00 PM		
Venue	Tarrawonga Coal Mine (TCM), meeting room		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

	meetings.		
8.Complaints	SM- no Complaint received since last CCC meeting.		
9. Next Meeting and Other Comments	DR: -next TCCC meetings will be held on 13 <sup>th</sup> May, 12 <sup>th</sup> August and 28 <sup>th</sup> October 2020 -next BTM CCC meetings to be held 14 <sup>th</sup> May and 29 <sup>th</sup> October 2020.		

# Tarrawonga Coal Mine Community Consultative Committee Meeting #60

**Quarterly Environmental Monitoring Report  
Feb 1 – April 30, 2020**



*Photo taken in March 2020 in a section of the southern emplacement area showing trees planted in 2019.*

This report has been prepared for the Community Consultative Committee (CCC) meeting to show environmental monitoring performance at Tarrawonga Coal Mine (TCM) for the reporting period from February 1, 2020 to April 30, 2020. Maps with all the monitoring locations are available in *Appendix A*.

# Noise Monitoring

Attended noise monitoring was conducted at the Coomalgalah TN2 and Matong TN2 properties from 1<sup>st</sup> to the 3<sup>rd</sup> March 2020. The noise criterion for the mine is 35 dBAeq in 15 min for all operational times.

The results below show that noise emissions from the mine did not exceed the operational noise criterion at the Coomalgalah TN2 or Matong TN2 monitoring locations during the monitoring period.

(See below summary tables extracted from Wilkinson Murray report -19360-T-03-(Q1 2020)).

**Table 4-1 Comparison of noise levels between TN2 and 573b Coomalgalah**

Date	Time	Noise Limits	TN2 Mine LAeq Noise Level (dB)	573b Coomalgalah Mine LAeq Noise Level (dB)	
		LAeq,15 min	Measured Mine Contribution	Commensurate Mine Compliance Level	Exceedance
02/03/2020	10:04	35	36	27	0
	10:20	35	33	24	0
	10:33	35	32	23	0
	10:50	35	30	21	0
	11:05	35	29	20	0
	21:32	35	<30	<21	0
	21:45	35	<30	<21	0
	22:00	35	33	24	0
	22:15	35	<30	<21	0
	22:30	35	<30	<21	0
	22:45	35	<30	<21	0
03/03/2020	21:29	35	<18 (I/A) <sup>1</sup>	<9 (I/A)	0
	21:46	35	<23 (I/A) <sup>1</sup>	<14 (I/A)	0
	22:01	35	<30	<21	0
	22:17	35	<30	<21	0
	22:32	35	<28	<19	0



Date	Time	Noise Limits	TN2 Mine $L_{Aeq}$ Noise Level (dB)	573b Coomalgalah Mine $L_{Aeq}$ Noise Level (dB)	
		$L_{Aeq,15\text{ min}}$	Measured Mine Contribution	Commensurate Mine Compliance Level	Exceedance
04/03/2020	22:47	35	<28	<19	0
	11:42	35	<19 (I/A) <sup>1</sup>	<10 (I/A)	0
	11:53	35	<25	<16	0
	12:09	35	<25	<16	0
	12:24	35	<25	<16	0
	12:39	35	<25	<16	0
	12:55	35	<25	<16	0
	21:31	35	<30	<21	0
	21:45	35	<30	<21	0
	22:01	35	<30	<21	0
05/03/2020	21:36	35	<33	<24	0

<sup>1</sup> Where mine noise was inaudible throughout the entire measurement, it is assumed that the contribution is less than 10dB below the measured  $L_{A90}$ .

**Table 4-3 Summary of noise assessment at TN3**

Date	Time	Noise Limits	TN3 Mine $L_{Aeq}$ Noise Level (dB)		
		$L_{Aeq,15\text{ min}}$	Measured Mine Contribution	Additional LF Penalty	Exceedance
02/03/2020	14:46	35	<19 (I/A) <sup>1</sup>	-	0
	15:01	35	<17 (I/A) <sup>1</sup>	-	0
	15:18	35	<19 (I/A) <sup>1</sup>	-	0
	15:32	35	<22 (I/A) <sup>1</sup>	-	0
	18:58	35	< 30	-	0
	19:13	35	<18 (I/A) <sup>1</sup>	-	0
03/03/2020	01:30	35	32	-	0
	01:45	35	32	-	0
04/03/2020	10:03	35	<22 (I/A) <sup>1</sup>	-	0
	10:26	35	<25 (I/A) <sup>1</sup>	-	0
	10:42	35	<30	-	0
	11:13	35	<22 (I/A) <sup>1</sup>	-	0
	19:45	35	<22 (I/A) <sup>1</sup>	-	0
	01:40	35	<30	-	0
05/03/2020	14:11	35	32	-	0
	14:26	35	32	-	0
	20:17	35	33	-	0
	23:43	35	<30	-	0

<sup>1</sup> Where mine noise was inaudible throughout the entire measurement, it is assumed that the contribution is less than 10 dB below the measured  $L_{A90}$ .

**Table 4-5 Summary of noise assessment at TN4**

Date	Time	TN4			
		Noise Limits LAeq,15 min	Mine LAeq Noise Level (dB)		
			Measured Mine Contribution	Additional LF Penalty	Exceedance
02/03/2020	20:39	35	<28 (I/A) <sup>1</sup>	-	0
	20:52	35	<27 (I/A) <sup>1</sup>	-	0
	23:27	35	<24 (I/A) <sup>1</sup>	-	0
	23:43	35	<25 (I/A) <sup>1</sup>	-	0
	23:58	35	<24 (I/A) <sup>1</sup>	-	0
	00:13	35	<24 (I/A) <sup>1</sup>	-	0
03/03/2020	20:43	35	<32 (I/A) <sup>1</sup>	-	0
	20:52	35	<33 (I/A) <sup>1</sup>	-	0
	23:22	35	<30	-	0
	23:37	35	<30	-	0
	23:53	35	<30	-	0
	00:09	35	<30	-	0
04/03/2020	14:01	35	<24 (I/A) <sup>1</sup>	-	0
	14:16	35	<24 (I/A) <sup>1</sup>	-	0
	14:32	35	<21 (I/A) <sup>1</sup>	-	0
	14:49	35	<19 (I/A) <sup>1</sup>	-	0
	20:50	35	<29 (I/A) <sup>1</sup>	-	0
	00:09	35	<28 (I/A) <sup>1</sup>	-	0
05/03/2020	14:30	35	34	-	0
	14:45	35	33	-	0
	21:30	35	<34 (I/A) <sup>1</sup>	-	0

<sup>1</sup> Where mine noise was inaudible throughout the entire measurement, it is assumed that the contribution is less than 10 dB below the measured LA90.

Noise from the mine must not exceed predicted levels in between 100m and 1km. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the mine. The results of the sleep disturbance monitoring show that the measured predicted in noise level did not exceed the sleep disturbance criterion.

**Table 4-2 Comparison of maximum noise events between TN2 and 573b Coomalgalah**

Date	Time	Noise Limits	TN2		573b Coomalgalah	
			Mine L <sub>Amax</sub> Noise Level (dB)		Mine L <sub>Amax</sub> Noise Level (dB)	
		LA <sub>1,1</sub> min	Noise Source	Measured Level	Commensurate Mine Compliance Level	Exceedance
02/03/2020	22:00	45	Engine	43	35	0
	22:15	45	-	NM	-	0
	22:30	45	-	NM	-	0
	22:45	45	-	NM	-	0
03/03/2020	22:01	45	-	NM	-	0
	22:17	45	-	NM	-	0
	22:32	45	-	NM	-	0
	22:47	45	-	NM	-	0
04/03/2020	22:01	45	-	NM	-	0

Note: NM indicates a significant maximum noise event was not observed.

**Table 4-4 Summary of maximum noise events at TN3**

Date	Time	Noise Limits	TN3		
			Mine L <sub>Amax</sub> Noise Level (dB)		
		LA <sub>1,1</sub> min	Noise Source	Measured Level	Exceedance
03/03/2020	01:30	45	-	NM	0
	01:45	45	-	NM	0
04/03/2020	01:40	45	-	NM	0
05/03/2020	23:43	45	-	NM	0

Note: NM indicates a significant maximum noise event was not observed.

**Table 4-6 Summary of maximum noise events at TN4**

Date	Time	TN4			
		Noise Limits	Mine L <sub>Amax</sub> Noise Level (dB)		
		LA <sub>1,1 min</sub>	Noise Source	Measured Level	Exceedance
02/03/2020	23:27	45	-	IA	0
	23:43	45	-	IA	0
	23:58	45	-	IA	0
	00:13	45	-	IA	0
03/03/2020	23:22	45	-	NM	0
	23:37	45	-	NM	0
	23:53	45	-	NM	0
	00:09	45	-	NM	0
04/03/2020	00:09	45	-	IA	0

Note: NM indicates a significant maximum noise event was not observed.

The real time noise monitor located on the Coalah Property remains a manual tool so the noise criteria are not applicable at that site. Level of noise recorded at that location is managed according to the noise management plan.

# Blast Monitoring

## Blasting Results

Since there have been no blasts until 20/03/20 at TCM.

There has been no exceedance of criterion since the last meeting for ground vibration. There has been two exceedances of blast overpressure since the last meeting with the highest result obtained being 117.5 dB at the privately owned property Coomalgalah recorded on 20/03/20 and the other recorded at the project related property Tarrawonga on the same day. The highest result for ground vibration was 0.59 mm/s recorded at the Coomalgalah monitor on the same date 20/03/20.

Note the exceedance of blast overpressure recorded at the private property Coomalgalah was in accordance with conditions of

the environmental schedule

condition 1 and 2

Maximum condition 1b and

Maximum condition 1b that states "blast overpressure noise must not exceed 120dB and 115dB in more than 5 % of the total number of blast over 12 month ...".

The blast overpressure was recorded on 20<sup>th</sup> March at the privately owned property Coomalgalah as the second recorded above 115dB in 10 blasts equivalent to 10% over 10 months therefore compliant with the approval and licences listed above.

**Table- 2: Max Peak Overpressure and Ground Pressure for the Quarter**

Monitor Location	Date	Max. Peak Overpressure (dB)	Criterion (dB)	Date	Max. Peak Ground Pressure (mm/s)	Criterion (mm/s)
Tarrawonga*	20/03/20	117.5	N/A	05/11/19	0.59	N/A
Coomalgalah	20/03/20	118.4	120	20/03/20	1.06	10

\*Limit Not applicable according to EPL and PA11\_0047 because project related property.

# Air Quality Monitoring

## Dust Deposition Results

**Table 3** shows deposited dust data results over 10 months. All the monitors are located on project related land as such compliance criteria over 10 months do not apply. Due to significant rainfall recorded during the reporting period overall deposited dust trends dropped further as shown in Appendix B.

MONTH	TEMPLEMORE (EB-4)	BOLLOL CREEK STN (EB-5)	AMBARDI (EB-6)	TARRAWONGA (EB-7)	THUIN (EB-8)	PINE GROVE (EB-9)	TARRAWONGA MINE (EB-10)	TARRAWONGA MINE (EB-11)	TARRAWONGA MINE (EB-14)	TARRAWONGA MINE (EB-15)	JERALONG NORTH (EB-16)
Feb-19	6.4	4.7	5.4	2.3	4.9	3.7	5.4	4.6	3.4	4.8	3.7
Mar-19	6.5	4.8	5.5	2.4	4.2	3.4	5.8	4.6	3.4	4.7	3.7
Apr-19	6.2	4.6	5.4	2.4	4.2	3.4	5.5	4.5	3.4	4.7	3.5
May-19	6.3	4.7	5.5	2.4	4.1	3.4	5.5	4.5	3.5	4.8	3.3
Jun-19	6.6	4.9	5.6	2.5	4.2	3.3	5.5	4.4	3.6	5.2	3.3
Jul-19	6.9	5.0	5.7	2.5	4.2	3.2	5.6	4.3	3.6	5.2	3.4
Aug-19	5.6	5.0	5.7	2.5	4.1	3.3	5.5	4.4	3.7	5.2	3.4
Sep-19	5.4	4.9	4.9	2.5	4.2	3.2	5.4	4.3	3.6	5.1	3.3
Oct-19	5.2	4.4	4.8	2.4	4.3	3.2	5.1	4.3	3.5	5.0	3.3
Nov-19	5.3	4.4	3.9	2.4	4.3	2.9	4.6	4.2	2.9	4.8	3.3
Dec-19	5.3	4.8	4.1	2.5	4.5	2.6	4.8	3.8	2.9	4.8	3.5
Jan-20	3.5	29.5*	3.5	2.5	3.5	6.8	10.9	2.8	2.5	3.3	2
Feb-20	8.1	#	5.4	2.5	5.7	5	4.2	5.9	7.6	10.4	3.8
Mar-20	1.7	#	2.2	2	6.2	2.9	8.3	4.1	2.8	4	2.3
April-20	2.2	3.0	7.7	0.7	15.9	0.8	2.5	1.9	1.5	3.8	5.2
<b>12 MONTH ROLLING AVERAGE</b>	4.0	4.1	2.9	1.9	5.3	2.5	4.6	3.7	3.1	5.2	2.7

\*Sample was contaminated and analysed with an optical microscope. Results showed that coal formed less than 10% of total dust. Value was excluded in the annual rolling average.

# EB-5 site was damaged after a flooding event caused by heavy rains in February by then repaired in April. (no samples were collected for February and March).

**Table 3 – Deposited Dust Gauge Results [g/m<sup>2</sup>/month]**



### High Volume Air sampler (PM10) Results

The High Volume Air sampler (HVAS) installed at Coalah Property monitors level of particulate matter under micron (M<sub>10</sub>) operates for 24 hours every days. Table 4 shows all the 24hr average values recorded for this quarter. Elevated levels of dust recorded were investigated and it was found that wind direction (rain) and rainfall activity near the monitor location were direct causes of the elevated level of dust recorded. TCM will include and discuss those results in the next annual review report.

**Table- 4: HVAS PM10 24 hr average levels for the Quarter**

Date	24hr averaged PM10 (µg/m <sup>3</sup> )	Criterion 24hr average (µg/m <sup>3</sup> )	Comments
02/02/2020	153	<b>50</b>	Determined as not mine related. Smoke/Haze noted in the field sheet. Wind gust were recorded above the 7.5m/s on that day. The real-time monitor (ES05) installed on the mine site between the pit and the HVAS recorded a PM10 24hr average of approximately 48.6 µg/m <sup>3</sup> .
08/02/2020	n/a		Filter was not replaced on that date because the site was not accessible after a heavy rainfall event.
14/02/2020	9.5		Nil
20/02/2020	35		Nil
26/02/2020	82.2		Determined as not mine related. Wind gusts coming from SW- W were recorded above 6m/s on that day. The real-time monitor (ES05) installed on the mine site between the pit and the HVAS recorded a PM10 24hr average of approximately 12.5 µg/m <sup>3</sup> .
03/03/2020	59.3		Determined as not mine related. Prevailing winds recorded were coming from E-SE on that day. The real-time monitor (ES05) installed on the mine site between the pit and the HVAS recorded a PM10 24hr average of approximately 45.3 µg/m <sup>3</sup> .
09/03/2020	6.0		Nil
15/03/2020	7.3		Nil
21/03/2020	39.3		Nil
27/03/2020	5.8		Nil
02/04/2020	15.4		Nil
08/04/2020	14.0		Nil
14/04/2020	16.2		Nil
20/04/2020	12.2		Nil
26/04/2020	24.2		Nil

S=South,E=East,N=North and W=West

## Real-time Air monitoring (PM10)

According to the current air quality and greenhouse gas Management Plan the real time air quality unit TCM installed at the Flixton property monitors PM<sub>10</sub> levels in ambient air. It is an operational management tool and dust levels nearing or reaching the nominated criteria will trigger actions onsite to assess the source of dust and modify operations if it is determined to be related to Tarraonga operations.

### *TEOM installed at Flixton property*

Three portable dust TCM monitors have improved the real time dust monitoring network and assist the operation to initiate any potential dust generated by the operation.



*Portable and real-time dust monitor installed at TCM in November 2018*

# Water Monitoring

## Groundwater

Monthly groundwater monitoring was undertaken in March 2020 and shown in **Table 5** (refer to **Figure 1** in **Appendix C**). Most of the bores water level is trending up.

**Table 5- Groundwater results Summary**

Site	Date	SWL (mbgl)	pH (units)	Elect. Conductivity (µS/cm)
<b>MW1</b>	March 2019	7.78	8.1	3,430
	June 2019	7.22	8.0	3,320
	September 2019	7.32	8.0	3,440
	December 2019	7.35	8.0	3,510
	March 2020	7.36	8.0	3,520
<b>MW2</b>				
	March 2019	4.34	7.1	560
	June 2019	3.41	7.0	461
	September 2019	4.01	6.9	530
	December 2019	4.65	7.1	560
	March 2020	3.15	7.6	496
<b>MW3</b>				
	March 2019	9.1	7.87	2,050
	June 2019	9.35	7.76	2,129
	November 2019	9.98	7.85	2,097
	March 2020	9.59	7.58	2,102
<b>MW4</b>				
	March 2019	9.58	7.2	4,840
	June 2019	9.41	7.3	3,860
	September 2019	9.62	7.4	3,460
	December 2019	10.14	7.3	3,530
	March 2020	10.46	7.7	3,600
<b>MW5</b>				
	March 2019	3.41	7.9	1,240
	June 2019	2.91	7.6	1292
	September 2019	2.90	7.8	2,100
	December 2019	3.25	7.8	2,080
	March 2020	2.41	7.8	874
<b>MW7</b>				
	March 2019	Dry	Dry	Dry
	June 2019	Dry	Dry	Dry
	September 2019	Dry	Dry	Dry
	December 2019	Dry	Dry	Dry
	March 2020	104.9	slime	slime
<b>MW8</b>				
	March 2019	13.66	Casing blocked	Casing blocked
	June 2019	13.69	Casing blocked	Casing blocked
	September 2019	13.77	Casing blocked	Casing blocked
	December 2019	13.76	Casing blocked	Casing blocked
	March 2020	13.76	Casing blocked	Casing blocked

MW3 is located on BCM lease and has been removed from the EPL12365 in January 2020.

MW6 casing was damaged in 2019 and has not been replaced repaired to date.

MW7 was not accessible during the March groundwater sampling run due to

## Surface Water

Water storage inventory is estimated to be approximately for months.

Due to significant rainfall events experienced in February sediment dam spill failed and TCM released water to the south west boundary with TCM. Agencies were notified and staff came to site to inspect the dam. TCM prepared an investigation report and supplied information requested. Staff assessed the information and concluded TCM failed to comply therefore issued a penalty notice.

According to the TCM Coalfield strategy water sharing opportunity is continuously discussed between the three mines. TCM continue assessing options to source additional water in order to maintain the mine in operation in the long run.

# Rehabilitation and Clearing

## Rehabilitation

Operations and Environmental departments work together to develop and implement a more efficient rehabilitation program. The aim is to enhance the quantity of areas rehabilitated.

TCM is currently assessing proposal for tree planting contractors to commence the planting campaign. Rehabilitation activities are expected to take place before mine and species targeted include *Calytrix albens*, *Calytrix blakelyi*, *Calytrix crebra*, *Calytrix dillii*, *Calytrix illiwaensis*, *Calytrix loddonensis*, *Calytrix macgregoriae*, *Calytrix melanocephala*, *Calytrix crebra*, *Calytrix dealbata* and *Calytrix forsteri*.

A small scale trial i.e. bed bank trial was conducted during tree clearing activities. The objective of the trial was to employ soil handling techniques targeted at achieving good establishment of woody plants from the bed bank and compare these with the establishment using current soil handling techniques.

## Clearing

Approximately 1000 vegetation were cleared between February and April under the supervision of a qualified ecologist and in accordance with the current MPA and Biodiversity Management Plan.

# Complaints

No complaint was received during the quarterly period.

# Environmental Management Plans

TCM addressed 1000 comments received in January 2014 and submitted a new Water Management Plan at the end of March. TCM is reviewing and will submit other updated Management Plans shortly including:

- Noise Management Plan
- Past Management Plan and
- Air Quality Greenhouse Gas Management Plan

## BTM Water Strategy

The Water Management Strategy was approved by 1000. Following the three mines continue to work with a groundwater expert to address natural resource access regulators 100000 comments related to the groundwater model. Agencies agreed the action plan and time frame proposed by the TCM mines to address and submit a revised water strategy and an updated TCM groundwater model.

# Annual and Compliance Reporting

## Annual Review

The annual review 1000 was submitted to 1000 in March 2014. 1000 advised they were satisfied with the report that has been uploaded on 1000 website.

## Annual Compliance EPBC statement

TCM is reviewing the annual Compliance EPBC statement that will be submitted to the Department of the Environment, Heritage and Northern Territory Affairs 1000 1000 1000 1000.

# Approval and Licencing

TCM submitted a Modification of project 1000 1000 1000 regarding temporary water haulage and it is currently being assessed. The Modification does not propose to change the mining operation or any components of the mine itself nor will it materially alter the operational workforce.

TCM submitted a Modification of project 1000 1000 1000 regarding the life of mine that includes:

- Increase OBM production to 100MT a
- Reduction of the pit extend
- 1000 1000 1000 1000 not mined
- Moonbri Creek and road not realigned.



# Environmental Improvement and Initiatives

## Dust Management

TCM have engaged the company to provide advice and solution to minimise potential particulate dust generated by exposed surfaces such as haul roads. Since end of April 2014 TCM have been monitoring the results and trying to improve the spraying and watering techniques. The product used is totally organic has no corrosive chloride compounds and is environmentally friendly and readily biodegradable. It is noted that product on fine haul truck roads is ongoing.

## Water Management

TCM and the company provide investigation options and products to reduce water used for dust mitigation.

## Noise Management

The portable noise monitor was relocated to hundreds of meters away from the main area of activity at Coalah and a new fence was installed around it.

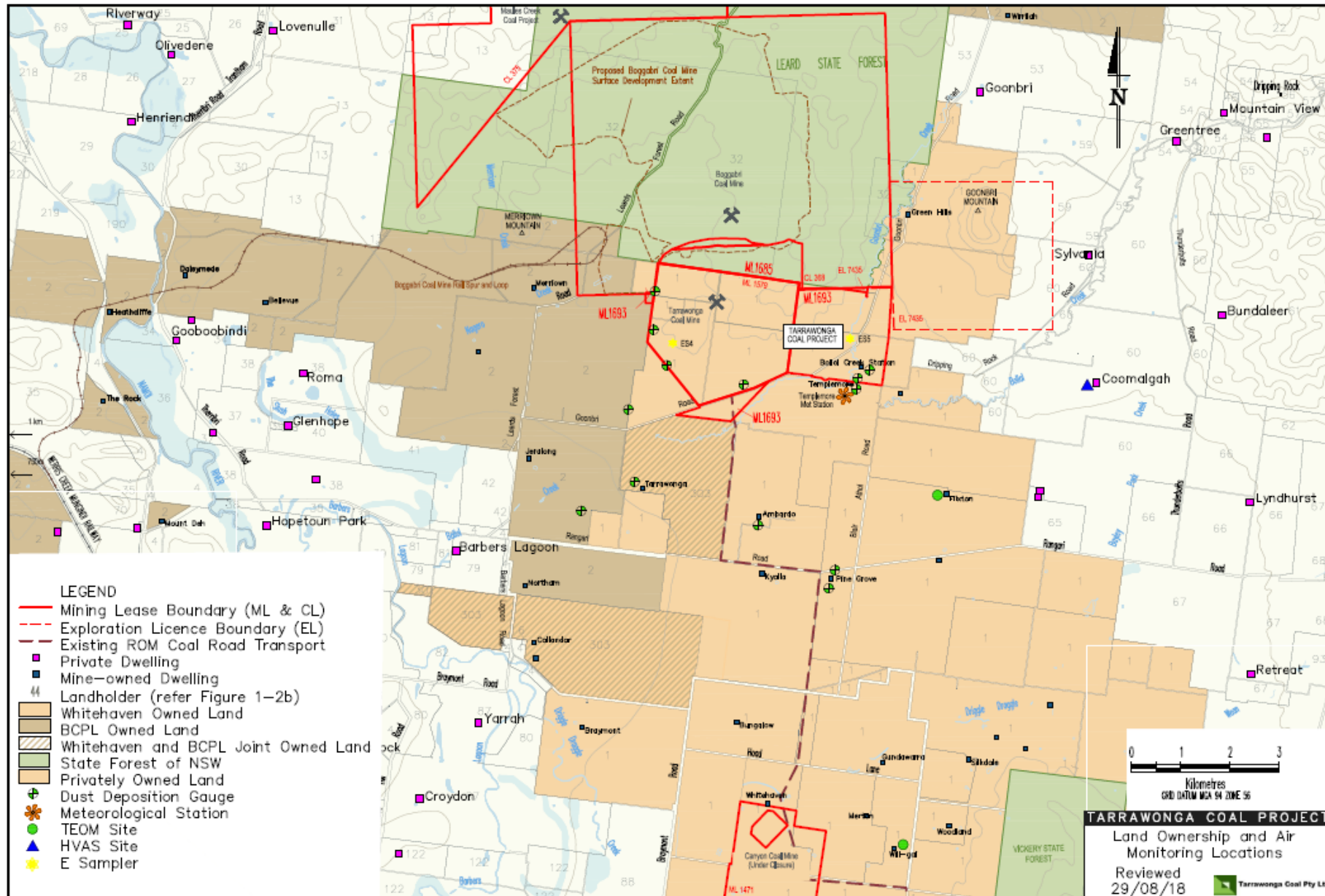
## Rehabilitation

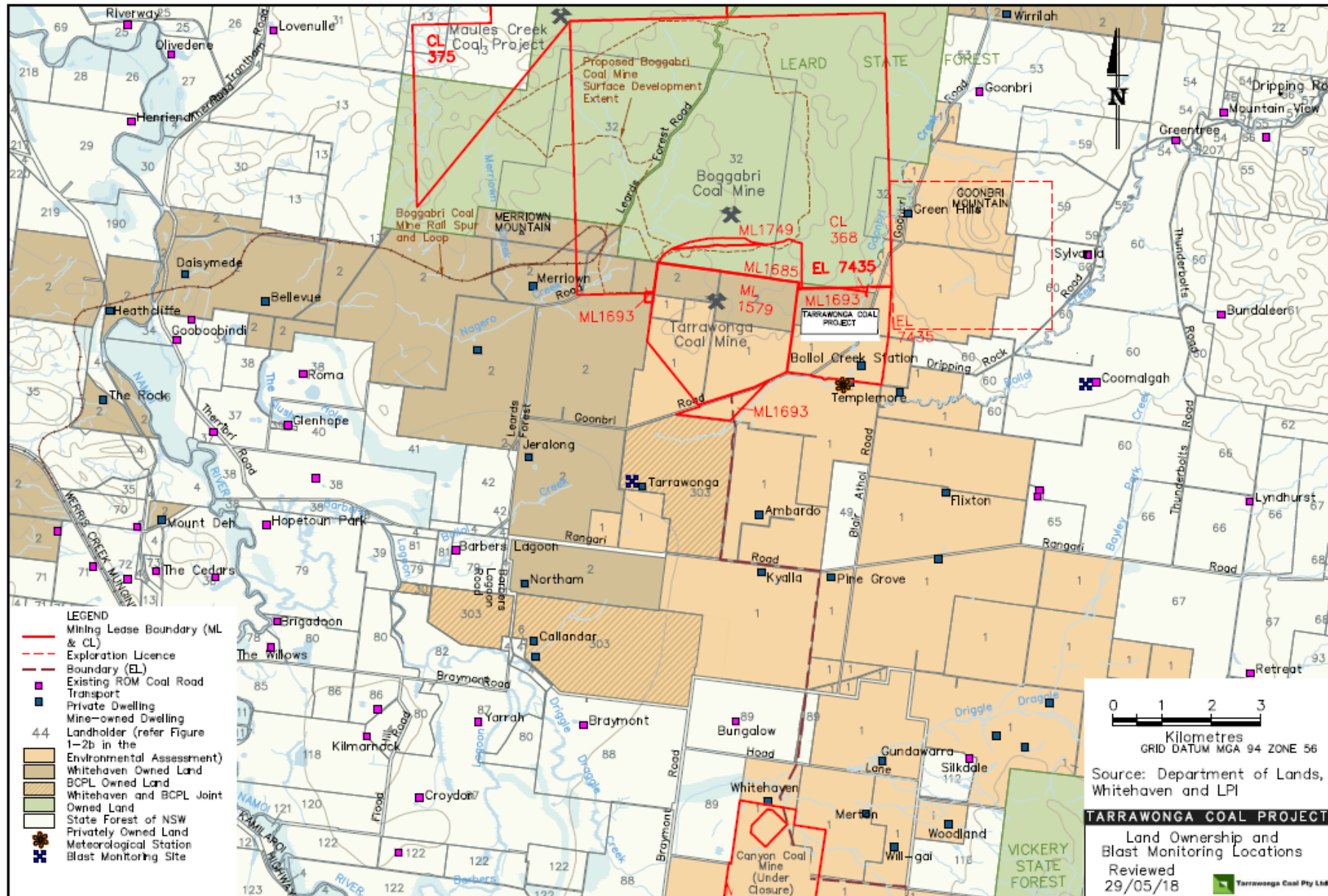
TCM continue to use an All Terrain Vehicle (ATV) to water the rehabilitated areas and the trees recently planted. It is noted that initiative allowed to achieve a high survival rate despite prolonged dry weather condition.



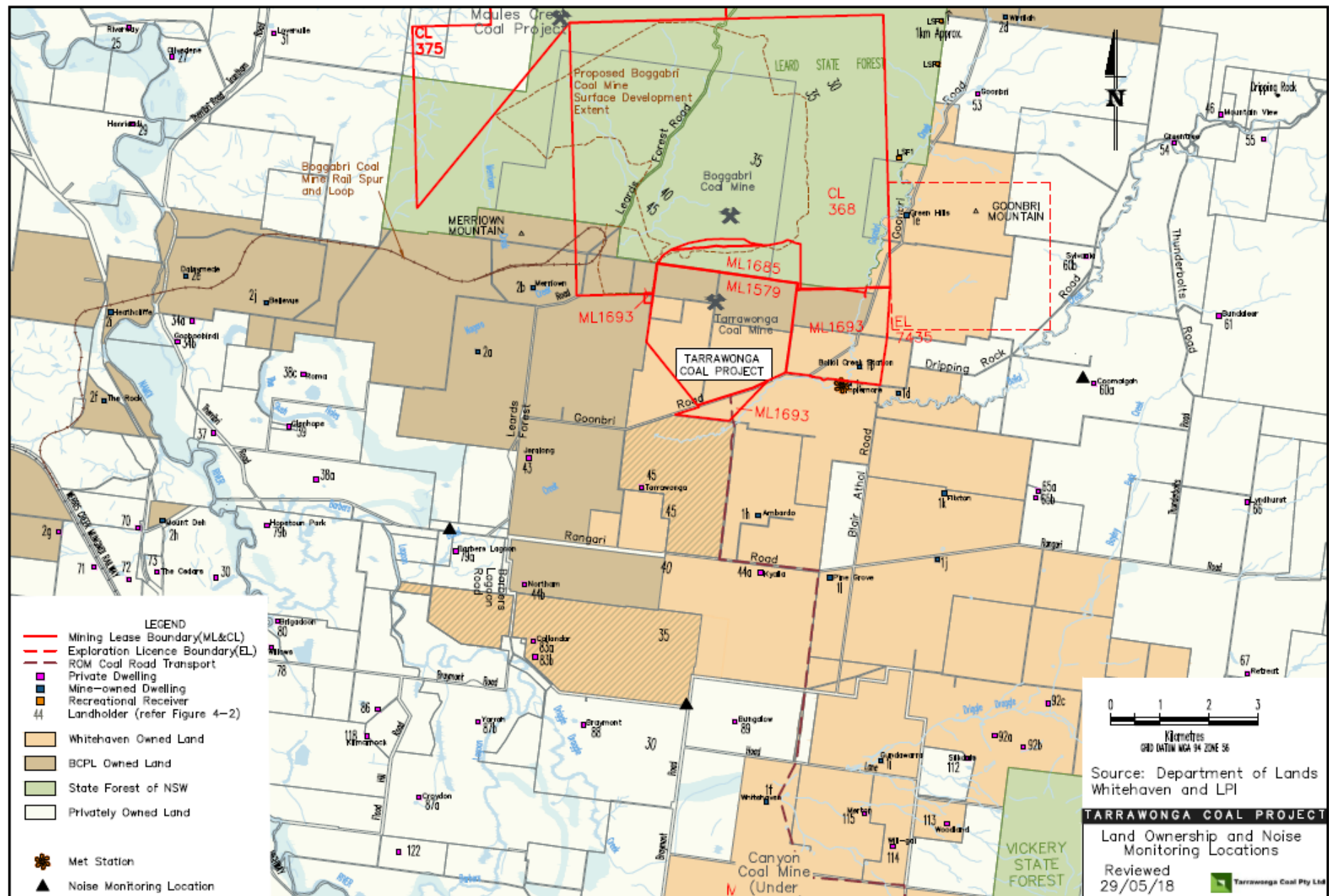
*ATV used in the rehabilitation areas*

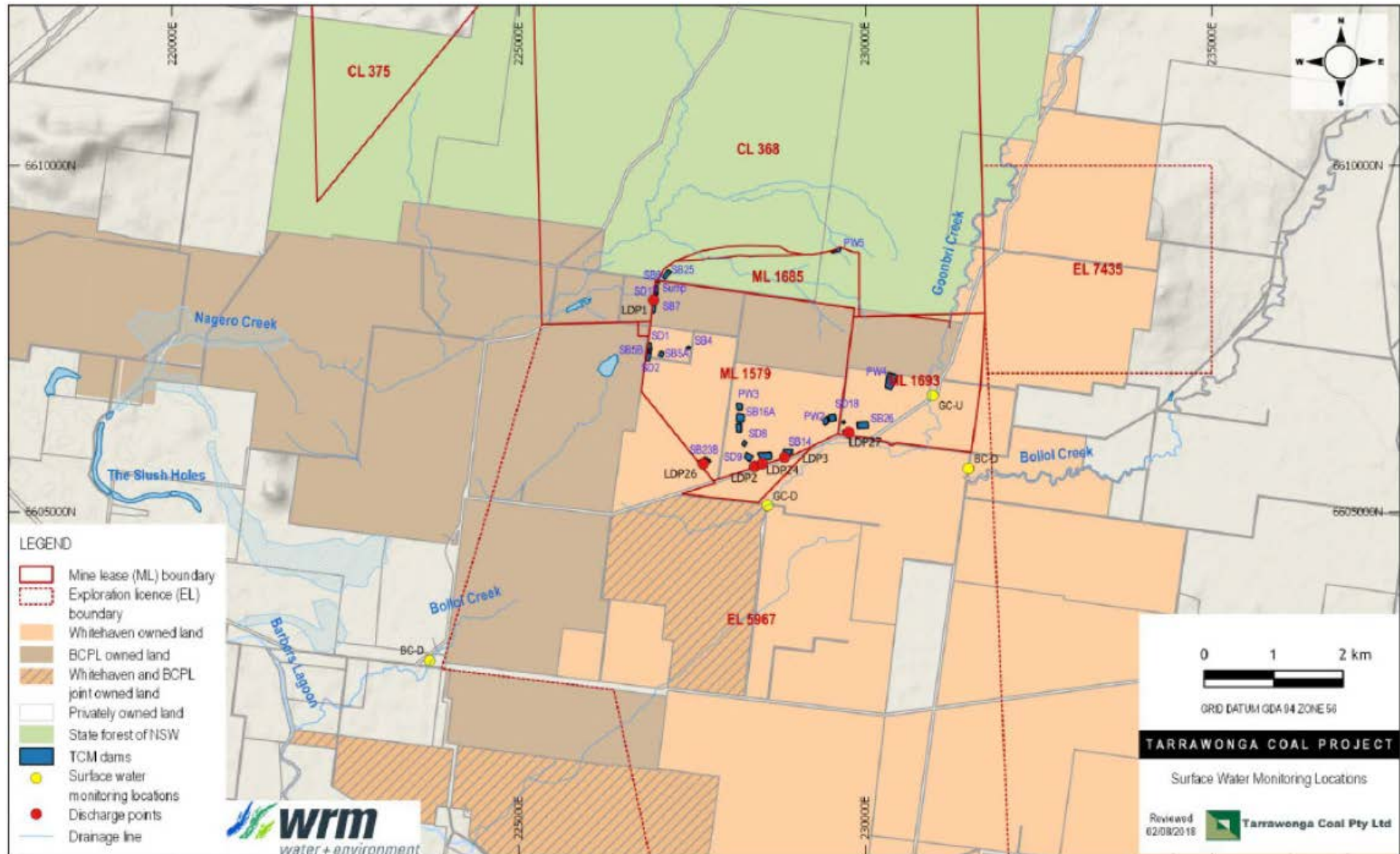
# Appendix A



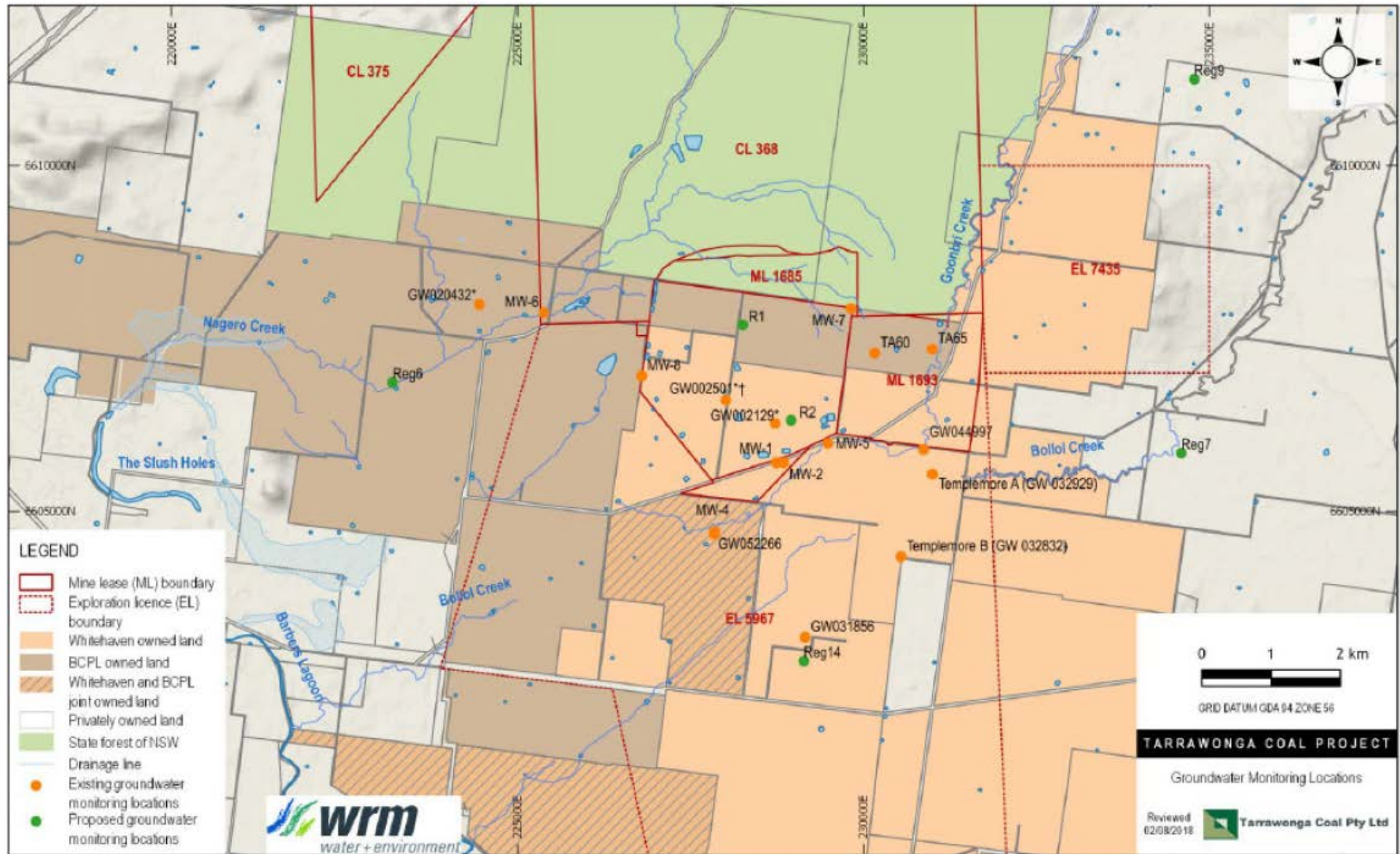






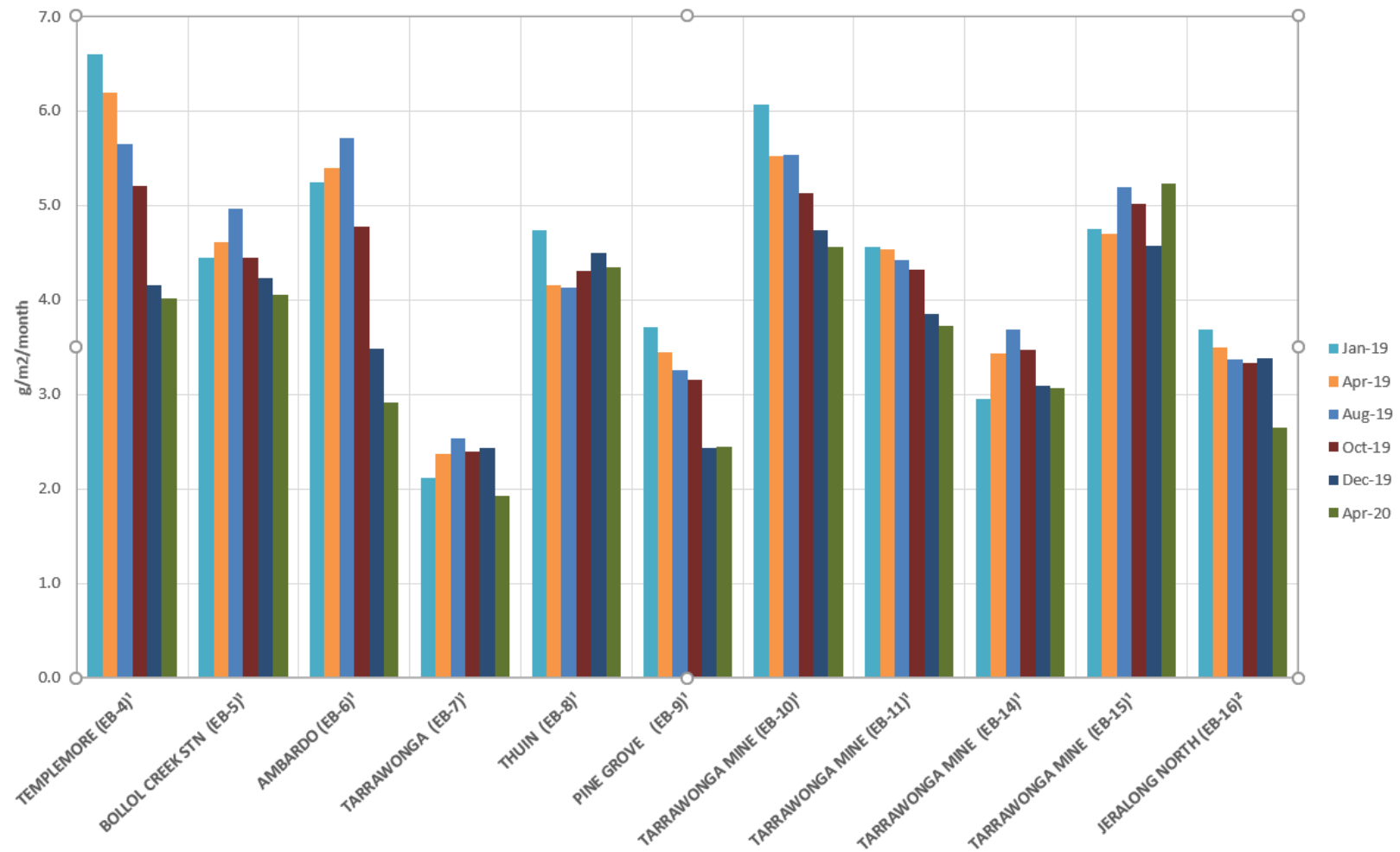






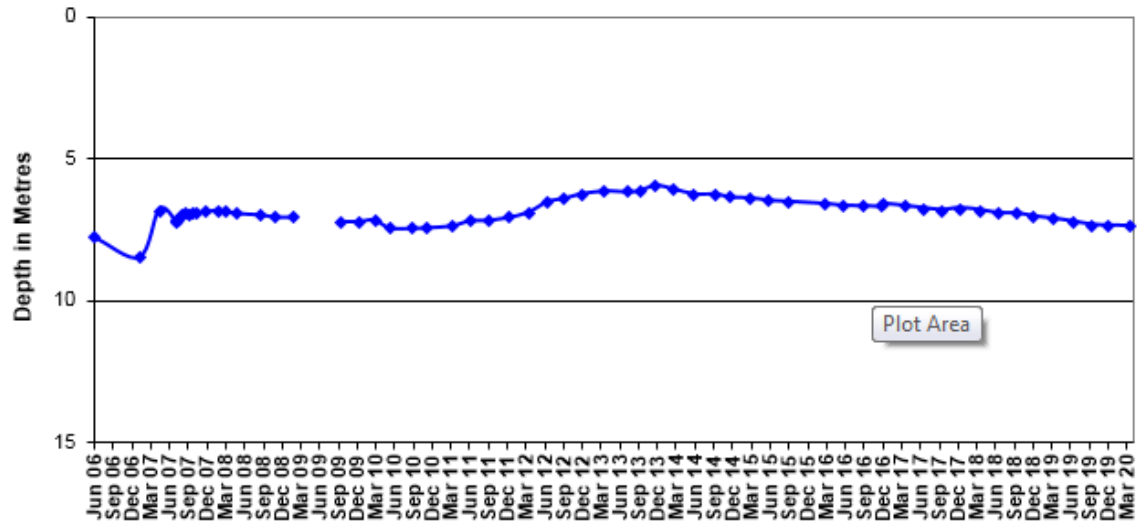
## Appendix B

Deposited Dust Gauge Results- Quarterly rolling average [g/m<sup>2</sup>/month]

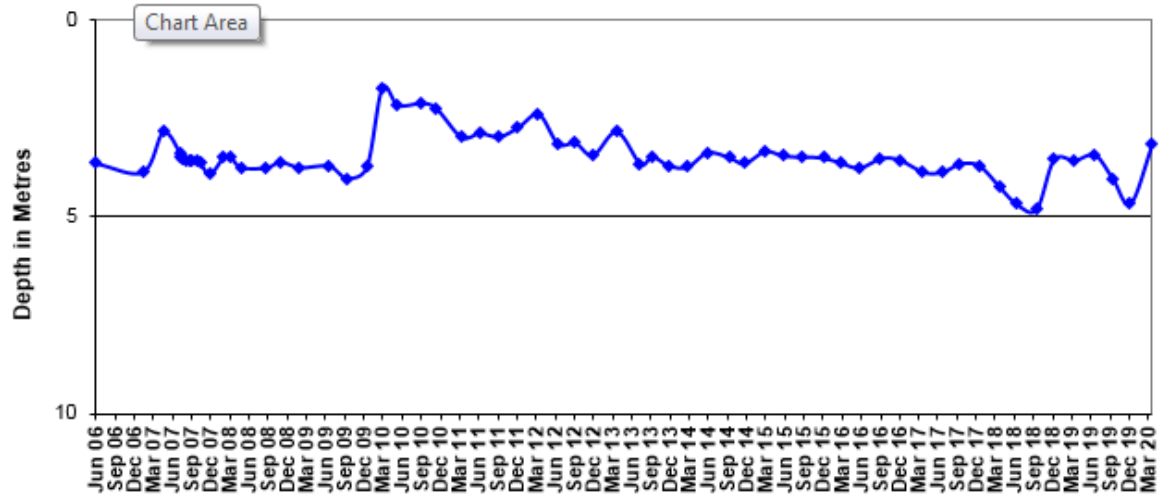


# Appendix C

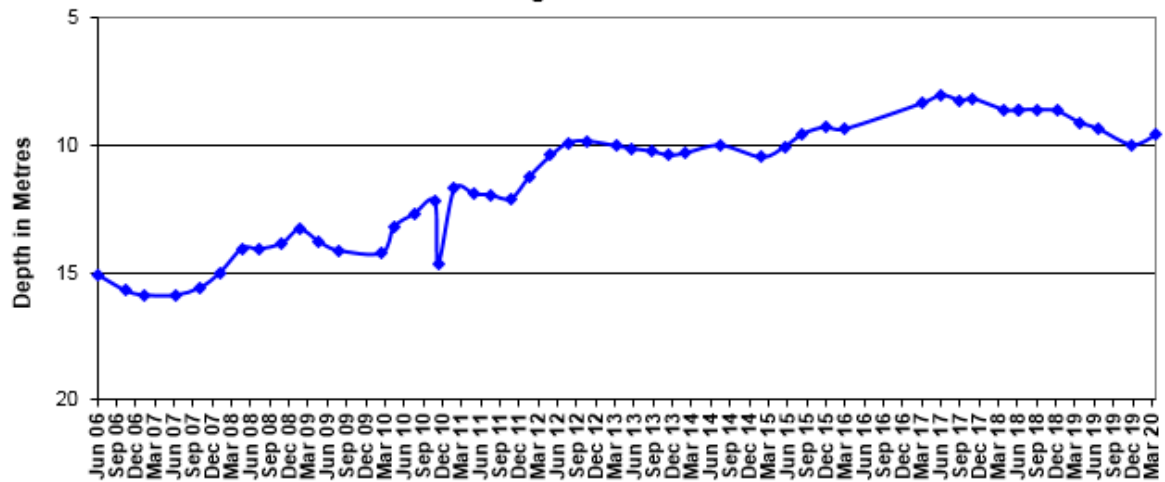
### Standing Water Level - MW1



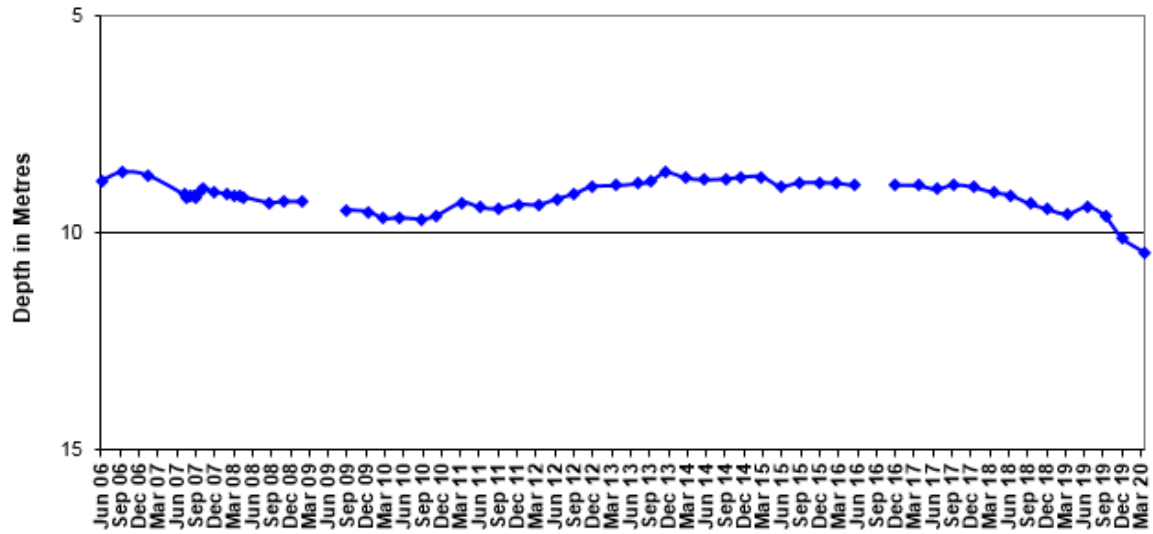
### Standing Water Level - MW2



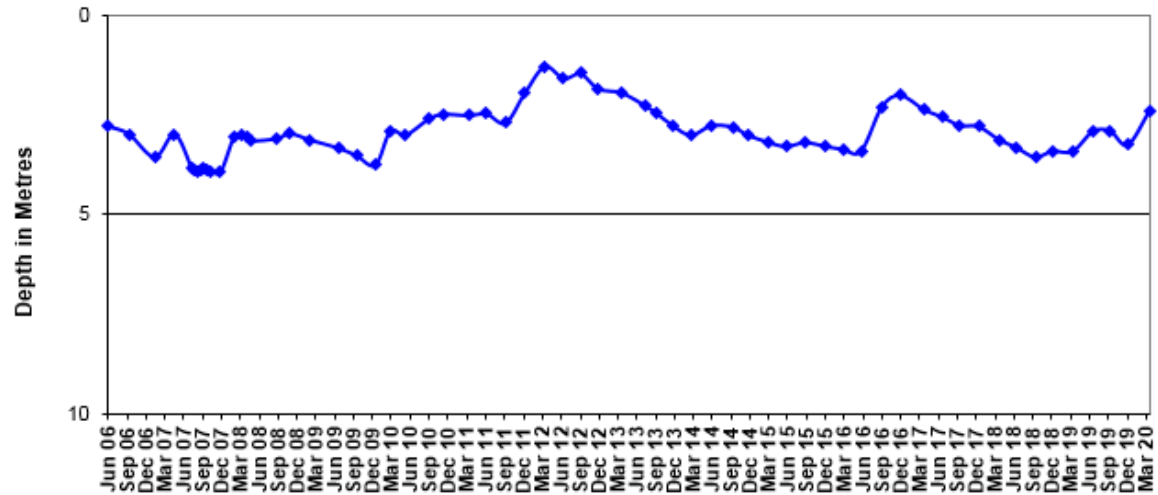
### Standing Water Level - MW3



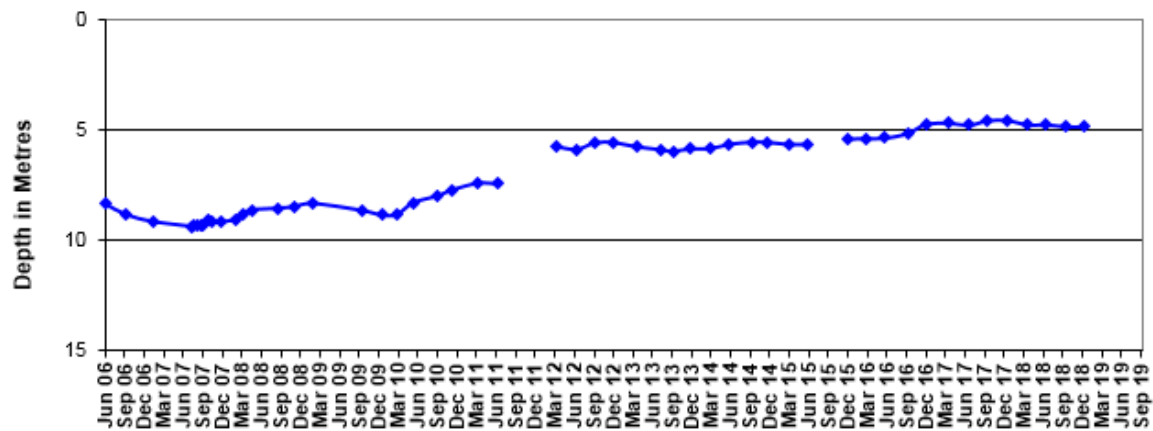
**Standing Water Level - MW4**



**Standing Water Level - MW5**

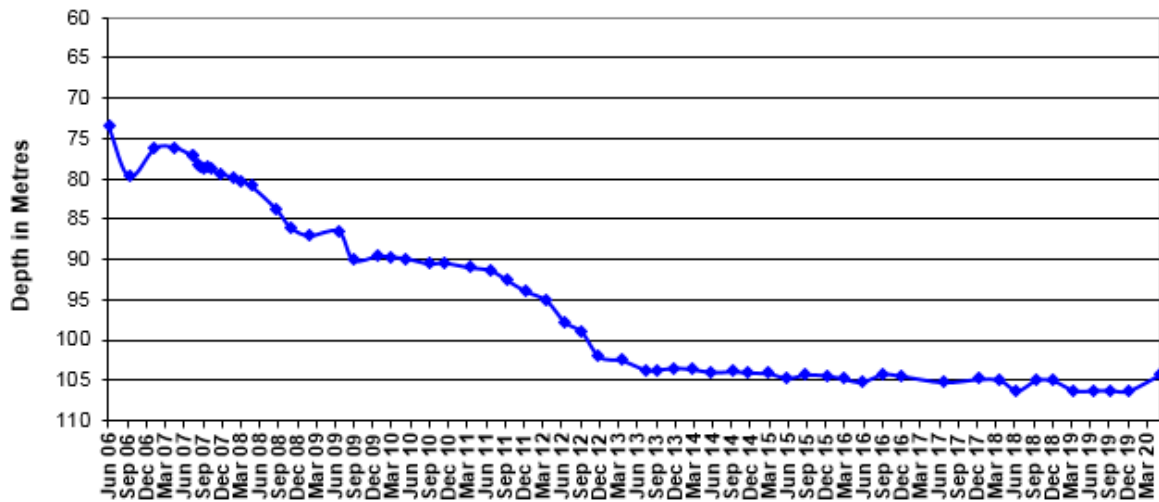


**Standing Water Level - MW6**

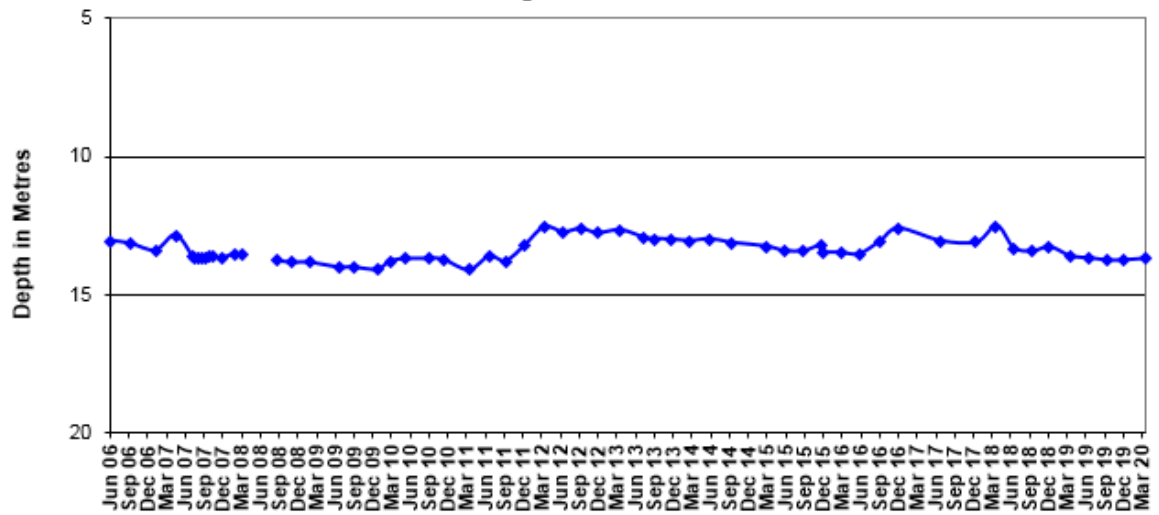


*Bore casing broken in 2019*

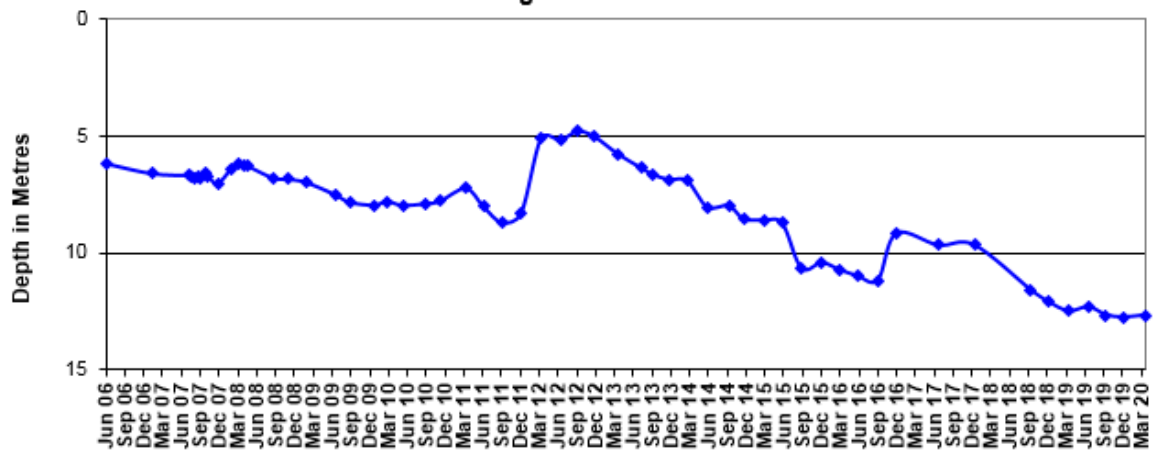
**Standing Water Level - MW7**



**Standing Water Level - MW8**



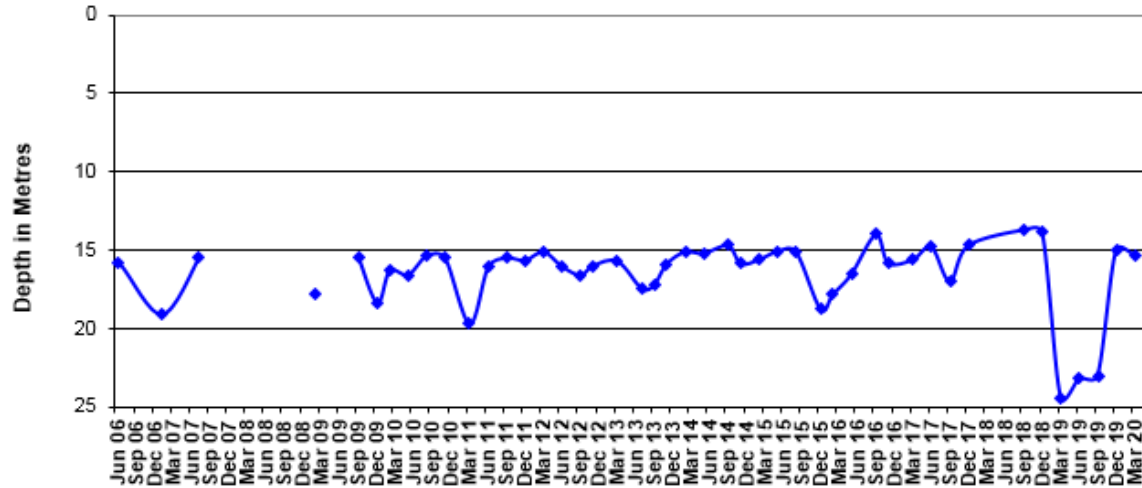
**Standing Water Level - GW044997**



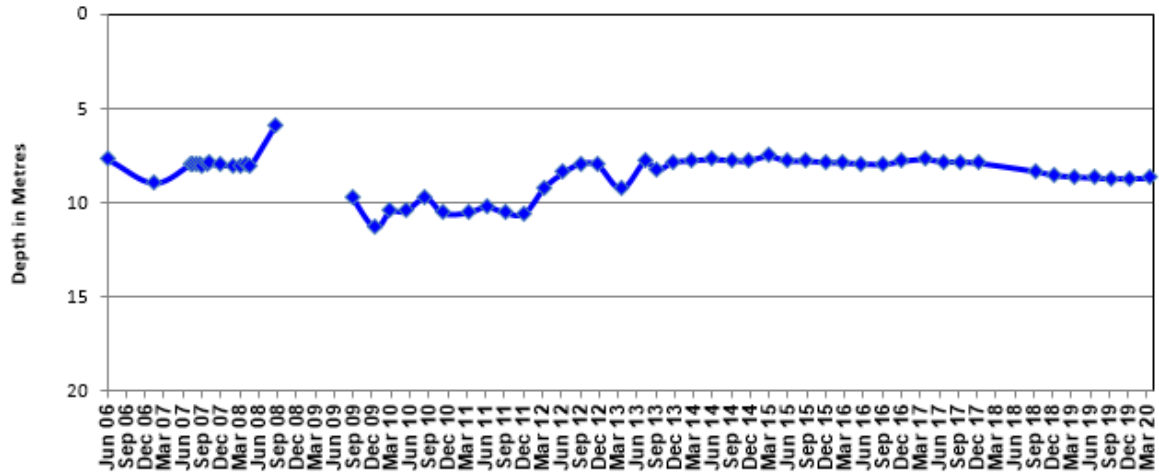




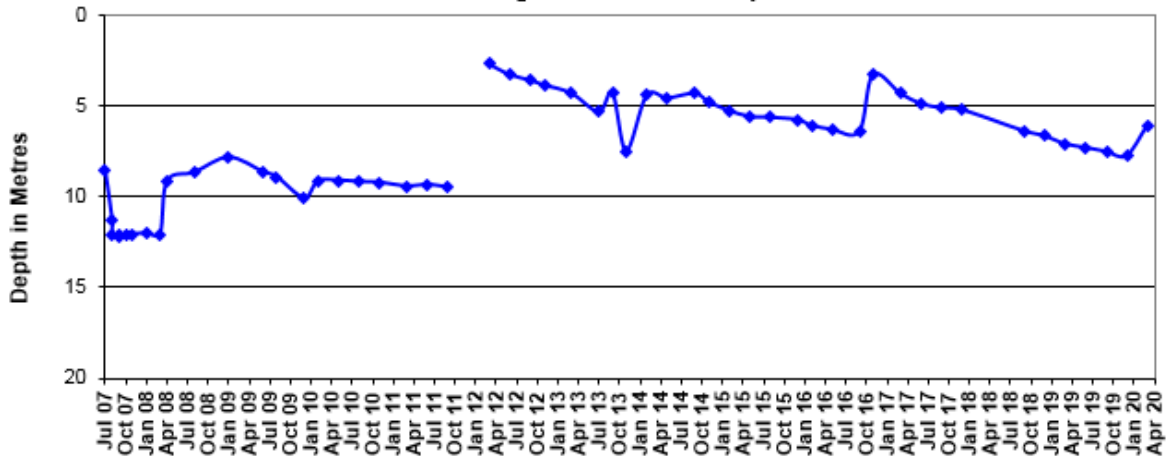
Standing Water Level - GW031856



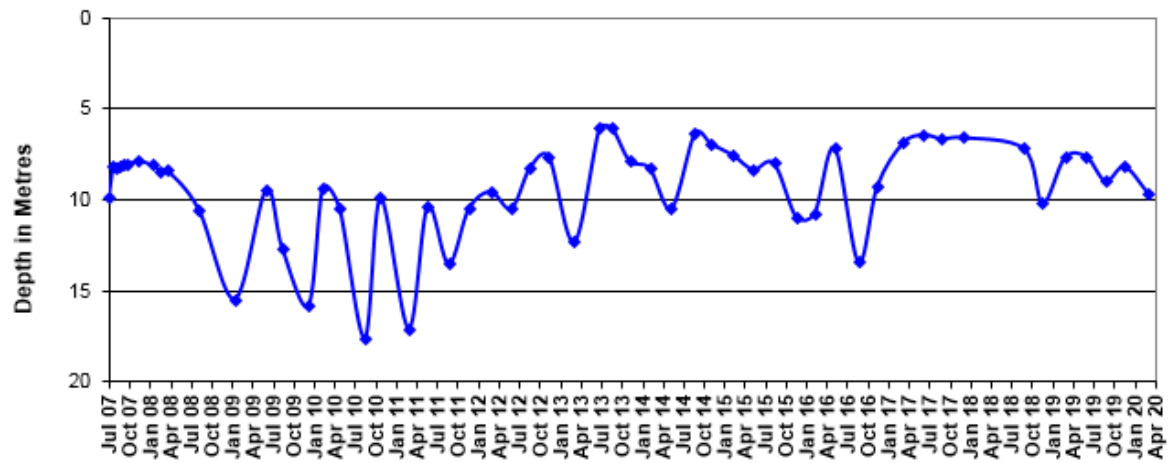
Standing Water Level - GW052266



Standing Water Level - Templemore A



**Standing Water Level - Templemore B**



# Minutes of the 60<sup>th</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	13 <sup>th</sup> May 2020 between 10:00AM- 11:15 AM		
Venue	Via Video conference		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

<b>1. Present and Apologies</b>	<p><u>Present:</u>  Mr David Ross (DR)- Independent Chairman,  Mr Robert Hooke (RH), Gunnedah Shire council Representative  Mrs Colleen Fuller (CF), Community Representative,  Mrs Cath Collyer (CC), Community Representative,  Mrs Rebecca Ryan (RR)- Community Representative,  Mr David Moses (DM), Gunnedah Shire council Representative  Mr Andrew Johns (AJ), Gunnedah Shire Council Representative.  Lloyd Finlay (LF), Narrabri Shire council Representative,  Mr John Hamson (JHa), Operations Manager-TCM,  Mr Sebastien Moreno (SM)- Environmental Superintendent- TCM,  Maddi Wright (MW), Environmental Graduate-TCM</p>	<p>SM- introduced Maddi to the CCC members</p>	
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# Minutes of the 60<sup>th</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	13 <sup>th</sup> May 2020 between 10:00AM- 11:15 AM		
Venue	Via Video conference		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

	<u>Apologies:</u> Mr Cameron Staines (CS), Narrabri Shire council Representative, Mrs Julie Heiler (JH), Community Representative,		
2. Declaration of Pecuniary or Non-Pecuniary Interests	DR- declared that he is paid a fee for participation as Independent Chairman.  LF- leases lands from WHC		
3. Previous Minutes Actions	DR- regarding alternate members to represent NSC.	DR- to contact General Manager from NSC and confirm if LF could join TCCC as an alternate member.	
	CC- expressed her desire to step down from her role with TCCC but once her replacement has been completed.	DR- to start process to recruit new CCC Members and find a replacement for CC.	
	DR- Annual review report to discuss CCC meeting performance and format.	DR- to prepare an annual review report and CCC Members to review, prepare questions and share ideas at the next meeting	

# Minutes of the 60<sup>th</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	13 <sup>th</sup> May 2020 between 10:00AM- 11:15 AM		
Venue	Via Video conference		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

4. Business Arising	<p>DR- asked JHa to share with the CCC how Covid-19 may have affected the business</p> <p>JHa- advised Resource Regulator conducted several audits and found TCM was leading the way in NSW in term of early implementation of measures onsite, i.e.</p> <ul style="list-style-type: none"> <li>-Hand sanitizer for everyone</li> <li>-Temperature checks</li> <li>-Wipes for the vehicles</li> <li>-Maintaining social distancing at prestart</li> <li>-Informative stickers in vehicles and around site, etc...</li> </ul> <p>As to date there were no infected people onsite. Few had symptoms and were removed from site but did not test positive.</p> <p>Despite particular covid-19 climate, attendance to work has been high.</p> <p>CF- congratulated all the effort made by the mine to implement those measures</p>		
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# Minutes of the 60<sup>th</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	13 <sup>th</sup> May 2020 between 10:00AM- 11:15 AM		
Venue	Via Video conference		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

5. Mine Progress Report	<p>JHa:</p> <ul style="list-style-type: none"> <li>- On track with production rate</li> <li>- Safety- LTI free-YTD 520 days,</li> <li>- Preparation of FY budgets</li> <li>- Enough water stored onsite after rainfall recorded since beginning of year</li> </ul> <p>-CC- asked if the traineeship program for local candidates will be at TCM only,</p> <p>JHa- responded similar programs should be available with other WHC sites including MCCM and WCM.</p>		
6. Environmental Monitoring report	<p>SM:</p> <ul style="list-style-type: none"> <li>-Read and explained the Quarterly Environmental Report results.</li> <li>- advised that an updated Water Management Plan (Version 6) was submitted in March and other EMPs will be submitted in 2020,</li> <li>- MOD7 (LOM) and MOD8 (temporary trucking water) were submitted to DPIE and are waiting for approval,</li> </ul>		

# Minutes of the 60<sup>th</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	13 <sup>th</sup> May 2020 between 10:00AM- 11:15 AM		
Venue	Via Video conference		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>
	<ul style="list-style-type: none"> <li>- Discussed sediment dam (SD2) incident after a ~1:500 years flood event.</li> <li>- Annual Return was submitted in March and Annual Review report was reviewed by DPIE and it is available on WHC website.</li> </ul>		
7. General business	<p>CCC members – asked why mines offset properties that are good for grazing- cropping are used for rehabilitation purposes,</p> <p>DR- advised this question to be raised with DPIE at the next joint BTM CCC meeting</p> <p>CCC members - no additional comments</p>		
8.Complaints	SM- no Complaint received since last CCC meeting.		
9. Next Meeting and Other Comments	<p>DR:</p> <ul style="list-style-type: none"> <li>-next TCCC meetings will be held 12<sup>th</sup> August and 28<sup>th</sup> October 2020</li> <li>-next BTM CCC meetings to be held 29<sup>th</sup> October 2020.</li> </ul>		



# Tarrawonga Coal Mine Community Consultative Committee Meeting #61

Quarterly Environmental Monitoring Report  
May 1 – July 30, 2020



*Photo taken in July 2020 in a section of the Northern emplacement area that has been recently rehabilitated.*

This report has been prepared for the Community Consultative Committee (CCC) meeting to show Environmental monitoring performance at Tarrawonga Coal Mine (TCM) for the reporting period from May 1 2020 to July 30, 2020. Maps with all the monitoring locations are available in *Appendix A*.

# Noise Monitoring

Attended noise monitoring was conducted at the “Bungalow” (TN4), “Barbers Lagoon” (TN3) and “Matong” (TN2) properties from 9<sup>th</sup> to the 12<sup>th</sup> of June 2019. The noise criterion for the mine is 35dB(A) Leq (15 min) for all operating times.

The results below show that noise emissions from the mine did not exceed the operational noise criterion at the “Barbers Lagoon”, “Bungalow” or “Matong” monitoring locations during the monitoring event during the entire monitoring period.

*(See below summary tables extracted from Wilkinson Murray report -19360-T-04-(Q2 2020)).*

**Table 4-1 Comparison of noise levels between TN2 and 573b Coomalgalah**

Date	Time	Noise Limits	TN2 Mine L <sub>Aeq</sub> Noise Level (dB)	573b Coomalgalah Mine L <sub>Aeq</sub> Noise Level (dB)	
		L <sub>Aeq,15 min</sub>	Measured Mine Contribution	Commensurate Mine Compliance Level	Exceedance
09/06/2020	10:35	35	20	11	0
	10:50	35	22	13	0
	21:21	35	22	13	0
	21:39	35	22	13	0
	22:00	35	<20	<11	0
	22:16	35	<20	<11	0
	22:31	35	<20	<11	0
	22:46	35	<20	<11	0
10/06/2020	10:03	35	<19 (I/A) <sup>1</sup>	<10 (I/A) <sup>1</sup>	0
	10:19	35	<18 (I/A) <sup>1</sup>	<9 (I/A) <sup>1</sup>	0
	10:35	35	<17 (I/A) <sup>1</sup>	<8 (I/A) <sup>1</sup>	0
	21:20	35	17	8	0
	21:36	35	<20	<11	0
	22:00	35	19	10	0
	22:15	35	22	13	0
	22:31	35	24	15	0

Date	Time	Noise Limits	TN2 Mine L <sub>Aeq</sub> Noise Level (dB)	573b Coomalgalh Mine L <sub>Aeq</sub> Noise Level (dB)	
		LA <sub>eq,15 min</sub>	Measured Mine Contribution	Commensurate Mine Compliance Level	Exceedance
11/06/2020	22:47	35	23	14	0
	09:49	35	<14 (I/A) <sup>1</sup>	<3 (I/A) <sup>1</sup>	0
	10:04	35	<25	<16	0
	10:20	35	<25	<16	0
	10:36	35	<25	<16	0
	10:50	35	<25	<16	0
	11:05	35	<22	<13	0
	20:35	35	<6 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0
	20:53	35	<6 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0
	23:27	35	<22	<13	0
	23:43	35	20	11	0
	23:58	35	19	10	0
	00:14	35	20	11	0
12/06/2020	10:10	35	<17 (I/A) <sup>1</sup>	<8 (I/A) <sup>1</sup>	0
	10:26	35	<19 (I/A) <sup>1</sup>	<10 (I/A) <sup>1</sup>	0
	10:49	35	<15 (I/A) <sup>1</sup>	<6 (I/A) <sup>1</sup>	0
	11:04	35	<22	<13	0
	11:20	35	22	13	0
	11:37	35	22	13	0
	21:30	35	<7 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0
	21:45	35	<8 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0
	22:00	35	28	19	0
	22:15	35	26	17	0
	22:30	35	28	19	0
	22:45	35	28	19	0

<sup>1</sup> Where mine noise was inaudible throughout the entire measurement, it is assumed that the contribution is less than 10dB below the measured L<sub>A90</sub>.

**Table 4-3 Summary of noise assessment at TN3**

Date	Time	Noise Limits	TN3 Mine L <sub>Aeq</sub> Noise Level (dB)		
		L <sub>Aeq,15 min</sub>	Measured Mine Contribution	Additional LF Penalty	Exceedance
09/06/2020	14:19	35	<25	-	0
	14:34	35	<21 (I/A) <sup>1</sup>	-	0
	14:51	35	<17 (I/A) <sup>1</sup>	-	0
	15:07	35	<23 (I/A) <sup>1</sup>	-	0
	15:22	35	<19 (I/A) <sup>1</sup>	-	0
	15:37	35	<22 (I/A) <sup>1</sup>	-	0
	19:22	35	32	-	0
	19:37	35	33	-	0
	00:43	35	33	-	0
	00:59	35	34	-	0
	01:15	35	34	-	0
	01:31	35	33	-	0
10/06/2020	09:27	35	33	-	0
	09:42	35	34	-	0
	09:57	35	34	-	0
	10:12	35	35	-	0
	10:27	35	33	-	0
	10:42	35	32	-	0
	19:17	35	27	-	0
	19:32	35	29	-	0
	00:50	35	32	-	0
	01:05	35	33	-	0
	01:20	35	33	-	0
	01:35	35	33	-	0
11/06/2020	13:45	35	<15 (I/A) <sup>1</sup>	-	0
	14:02	35	<16 (I/A) <sup>1</sup>	-	0
	14:21	35	<14 (I/A) <sup>1</sup>	-	0
	14:36	35	<14 (I/A) <sup>1</sup>	-	0

Date	Time	TN3			
		Noise Limits		Mine $L_{Aeq}$ Noise Level (dB)	
		$L_{Aeq,15\ min}$	Measured Mine Contribution	Additional LF Penalty	Exceedance
12/06/2020	14:51	35	<14 (I/A) <sup>1</sup>	-	0
	15:06	35	<12 (I/A) <sup>1</sup>	-	0
	19:34	35	<8 (I/A) <sup>1</sup>	-	0
	19:49	35	<9 (I/A) <sup>1</sup>	-	0
	00:51	35	28	-	0
	01:06	35	27	-	0
	01:21	35	28	-	0
	01:36	35	30	-	0
	10:35	35	34	-	0
	10:50	35	34	-	0
	11:05	35	33	-	0
	11:20	35	32	-	0
	11:35	35	32	-	0
	11:50	35	32	-	0
	20:30	35	33	-	0
	20:50	35	32	-	0
	00:00	35	28	-	0
	00:15	35	28	-	0
	00:30	35	28	-	0
	00:46	35	31	-	0

<sup>1</sup> Where mine noise was inaudible throughout the entire measurement, it is assumed that the contribution is less than 10 dB below the measured  $L_{Aeq}$ .

**Table 4-5 Summary of noise assessment at TN4**

Date	Time	Noise Limits	TN4		
		$LA_{eq,15\ min}$	Mine $L_{Aeq}$ Noise Level (dB)	Additional LF Penalty	Exceedance
09/06/2020	12:24	35	<30	-	0
	12:39	35	<30	-	0
	12:57	35	<30	-	0
	13:15	35	<30	-	0
	13:30	35	<30	-	0
	13:46	35	<30	-	0
	20:36	35	26	-	0
	20:51	35	25	-	0
	23:25	35	32	-	0
	23:40	35	31	-	0
	23:56	35	28	-	0
	00:13	35	27	-	0
10/06/2020	11:55	35	<28	-	0
	12:12	35	<28	-	0
	12:27	35	<25	-	0
	12:43	35	<28	-	0
	13:01	35	<26	-	0
	13:17	35	<26	-	0
	20:34	35	<23	-	0
	20:50	35	<18	-	0
	23:24	35	<25	-	0
	23:40	35	<25	-	0
	23:56	35	25	-	0
	00:12	35	<25	-	0
11/06/2020	11:47	35	<13 (I/A) <sup>1</sup>	-	0
	12:04	35	<13 (I/A) <sup>1</sup>	-	0
	12:21	35	<13 (I/A) <sup>1</sup>	-	0
	12:38	35	<13 (I/A) <sup>1</sup>	-	0

Date	Time	TN4 Noise Limits Mine L <sub>Aeq</sub> Noise Level (dB)			
		L <sub>Aeq,15 min</sub>	Measured Mine Contribution	Additional LF Penalty	Exceedance
12/06/2020	12:54	35	<13 (I/A) <sup>1</sup>	-	0
	13:09	35	<13 (I/A) <sup>1</sup>	-	0
	21:25	35	<8 (I/A) <sup>1</sup>	-	0
	21:41	35	<11 (I/A) <sup>1</sup>	-	0
	22:00	35	<20	-	0
	22:16	35	<20	-	0
	22:31	35	20	-	0
	22:48	35	<25	-	0
	12:15	35	<25	-	0
	12:30	35	<24	-	0
	12:47	35	<25	-	0
	13:02	35	<25	-	0
	13:18	35	<25	-	0
	13:36	35	<25	-	0
	21:25	35	26	-	0
	21:47	35	<25	-	0
	22:00	35	<25	-	0
	22:15	35	28	-	0
	22:32	35	28	-	0
	22:48	35	<30	-	0

<sup>1</sup> Where mine noise was inaudible throughout the entire measurement, it is assumed that the contribution is less than 10 dB below the measured L<sub>90</sub>.

Noise from the mine must not exceed 45 dB(A) L1 (1 min) between 10 pm and 7 am. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the mine. The results of the sleep disturbance monitoring show that the measured L1 (1 min) noise level did not exceed the sleep disturbance criterion.



**Table 4-2 Comparison of maximum noise events between TN2 and 573b Coomalgalah**

Date	Time	Noise Limits LA <sub>1,1</sub> min	TN2 Mine L <sub>Amax</sub> Noise Level (dB)		573b Coomalgalah Mine L <sub>Amax</sub> Noise Level (dB)	
			Noise Source	Measured Level	Commensurate Mine Compliance Level	Exceedance
09/06/2020	22:00	45	-	NM	-	0
	22:16	45	-	NM	-	0
	22:31	45	-	NM	-	0
	22:46	45	-	NM	-	0
10/06/2020	22:00	45	-	NM	-	0
	22:15	45	-	NM	-	0
	22:31	45	-	NM	-	0
	22:47	45	-	NM	-	0
11/06/2020	23:27	45	-	NM	-	0
	23:43	45	-	NM	-	0
	23:58	45	-	NM	-	0
	00:14	45	-	NM	-	0
12/06/2020	22:00	45	Horn	29	20	0
	22:15	45	Horn	29	20	0
	22:30	45	Horn	29	20	0
	22:45	45	Horn	29	20	0

Note: NM indicates a significant maximum noise event was not observed.

**Table 4-4 Summary of maximum noise events at TN3**

Date	Time	Noise Limits LA <sub>1,1</sub> min	TN3 Mine L <sub>Amax</sub> Noise Level (dB)		
			Noise Source	Measured Level	Exceedance
09/06/2020	00:43	45	-	NM	0
	00:59	45	-	NM	0
	01:15	45	Engine	35	0
	01:31	45	-	NM	0
10/06/2020	00:50	45	-	NM	0
	01:05	45	-	NM	0
	01:20	45	-	NM	0
	01:35	45	-	NM	0
11/06/2020	00:51	45	-	NM	0
	01:06	45	-	NM	0
	01:21	45	-	NM	0
	01:36	45	-	NM	0
12/06/2020	00:00	45	-	NM	0
	00:15	45	-	NM	0
	00:30	45	Engine	35	0
	00:46	45	Engine	35	0

Note: NM indicates a significant maximum noise event was not observed.

**Table 4-6 Summary of maximum noise events at TN4**

Date	Time	TN4			
		Noise Limits	Mine $L_{Amax}$ Noise Level (dB)		
		$LA_{1,1 min}$	Noise Source	Measured Level	Exceedance
09/06/2020	23:25	45	Engine	35	0
	23:40	45	-	NM	0
	23:56	45	-	NM	0
	00:13	45	-	NM	0
10/06/2020	23:24	45	-	NM	0
	23:40	45	-	NM	0
	23:56	45	-	NM	0
	00:12	45	-	NM	0
11/06/2020	22:00	45	-	NM	0
	22:16	45	-	NM	0
	22:31	45	-	NM	0
	22:48	45	-	NM	0
12/06/2020	22:00	45	-	NM	0
	22:15	45	-	NM	0
	22:32	45	-	NM	0
	22:48	45	-	NM	0

Note: NM indicates a significant maximum noise event was not observed.

The real time noise monitor located on the “Coomalgah” property remains a management tool so the noise criteria are not applicable at that site. Level of noise recorded at that location is managed according to the noise management plan and trigger action response plan.

# Blast Monitoring

## Blasting Results

Since 2006, there have been 986 blasts (until 31/07/2020) at TCM.

There have been no recorded exceedances related to blasting activities during the reporting period. **Table 2** indicates the highest overpressure result obtained on 11/05/20 was 112.4 dB at the project related property 'Tarrawonga'. The highest result for ground vibration was 3.78 mm/s recorded at the Coomalgalah monitor on the 03/06/2020.

**Table- 2: Max Peak Overpressure and Ground Pressure for the Quarter**

Monitor Location	Date	Max. Peak Overpressure (dB)	Criterion (dB)	Date	Max. Peak Ground Pressure (mm/s)	Criterion (mm/s)
Tarrawonga*	11/05/20	112.4	N/A	29/05/20	0.83	N/A
Coomalgalah	18/06/20	105.6	120	03/06/20	3.78	10

*\*Limit Not applicable according to PA11\_0047 because project related property.*

# Air Quality Monitoring

## Dust Deposition Results

**Table 3** shows deposited dust gauge results over 12 months. All the monitors are located on project related land; as such compliance criteria (4g/m<sup>2</sup>/month) do not apply. Overall deposited dust measurements were clearly trending down during the reporting period (refer graph in *Appendix B*).

**Table 3 – Deposited Dust Gauge Results [g/m<sup>2</sup>/month]**

MONTH	TEMPLEMORE (EB-4)	BOLLOL CREEK STN (EB-5)	AMBARDI (EB-6)	TARRAWONGA (EB-7)	THUIN (EB-8)	PINE GROVE (EB-9)	TARRAWONGA MINE (EB-10)	TARRAWONGA MINE (EB-11)	TARRAWONGA MINE (EB-14)	TARRAWONGA MINE (EB-15)	JERALONG NORTH (EB-16)
Jul-19	6.9	5.0	5.7	2.5	4.2	3.2	5.6	4.3	3.6	5.2	3.4
Aug-19	5.6	5.0	5.7	2.5	4.1	3.3	5.5	4.4	3.7	5.2	3.4
Sep-19	5.4	4.9	4.9	2.5	4.2	3.2	5.4	4.3	3.6	5.1	3.3
Oct-19	5.2	4.4	4.8	2.4	4.3	3.2	5.1	4.3	3.5	5.0	3.3
Nov-19	5.3	4.4	3.9	2.4	4.3	2.9	4.6	4.2	2.9	4.8	3.3
Dec-19	5.3	4.8	4.1	2.5	4.5	2.6	4.8	3.8	2.9	4.8	3.5
Jan-20	3.5	29.5*	3.5	2.5	3.5	6.8	10.9	2.8	2.5	3.3	2
Feb-20	8.1		5.4	2.5	5.7	5	4.2	5.9	7.6	10.4	3.8
Mar-20	1.7		2.2	2	6.2	2.9	8.3	4.1	2.8	4	2.3
April-20	2.2	3	7.7	0.7	15.9	0.8	2.5	1.9	1.5	3.8	5.2
May-20	3	2.5	1.4	2.4	3.2	1.2	4.4	2.4	2.3	4.4	4.2
Jun-20	3.1	2	1.1	1	2.7	1.5	1.9	2.5	1.8	5.3	2.7
Jul-20	1.3	2.8	0.9	2	3.2	0.8	0.9	2.7	1.5	3.4	1.2
<b>12 MONTH ROLLING AVERAGE</b>	3.5	3.3	2.7	2.1	4.4	2.4	4.2	3.4	2.9	4.7	2.9

\*Sample was contaminated therefore retested and analysed with an optical microscope. Results showed that coal formed less than 10% of total dust. Value was not included in the annual rolling average.

### High Volume Air sampler (PM<sub>10</sub>) Results

The High Volume Air Sampler (HVAS) installed at Coomalgah property monitors level of Particle Matter under 10 micron (PM<sub>10</sub>). It operates for 24hr every 6 days. **Table 4** shows that all the PM<sub>10</sub> 24hr average values recorded for this quarter were well below the compliance criterion of 50µg/m<sup>3</sup>.

**Table- 4: HVAS PM<sub>10</sub> 24 hr average levels for the Quarter**

Date	24hr averaged PM <sub>10</sub> (µg/m <sup>3</sup> )	Criterion 24hr average (µg/m <sup>3</sup> )	Comments
2/05/2020	10.9	<b>50.0</b>	<b>Nil</b>
8/05/2020	6.0		
14/05/2020	6.3		
20/05/2020	14.0		
26/05/2020	0.6		
1/06/2020	9.9		
7/06/2020	9.3		
13/06/2020	4.8		
19/06/2020	0.6		
25/06/2020	1.8		
1/07/2020	7.4		
7/07/2020	5.7		
13/07/2020	1.0		
19/07/2020	4.3		
25/07/2020	<0.1		

### Real-time Air monitoring (PM<sub>10</sub>)

According to the approved Air Quality and Greenhouse Gas Management Plan, the real time air quality unit (TEOM) installed at the “Flixton” property monitors PM<sub>10</sub> levels in ambient air. It is an operational management tool and dust levels nearing or reaching the nominated criteria will trigger actions onsite to assess the source of dust and modify operations if it is determined to be related to Tarrawonga operations.



*TEOM installed at Flixton property*

Three portable dust (PM<sub>10</sub>) monitors have improved the real-time dust monitoring network and assist the operation to mitigate any potential dust generated by the operation.



*Portable and real-time dust monitor installed at TCM in 2018*



# Water Monitoring

## Groundwater

Routine groundwater monitoring was undertaken in March 2020 and results are shown in **Table 5** (refer to graphs in *Appendix C*).

**Table 5- Groundwater results Summary**

Site	Date	SWL (mbgl)	pH (units)	Elect. Conductivity (µS/cm)
MW1	March 2019	7.78	8.1	3,430
	June 2019	7.22	8.0	3,320
	September 2019	7.32	8.0	3,440
	December 2019	7.35	8.0	3,510
	March 2020	7.36	8.0	3,520
	June 2020	7.42	7.8	3,490
MW2	March 2019	4.34	7.1	560
	June 2019	3.41	7.0	461
	September 2019	4.01	6.9	530
	December 2019	4.65	7.1	560
	March 2020	3.15	7.6	496
	June 2020	3.18	7.3	490
MW4	March 2019	9.58	7.2	4,840
	June 2019	9.41	7.3	3,860
	September 2019	9.62	7.4	3,460
	December 2019	10.14	7.3	3,530
	March 2020	10.46	7.7	3,600
	June 2020	10.57	7.4	3,530
MW5	March 2019	3.41	7.9	1,240
	June 2019	2.91	7.6	1292
	September 2019	2.90	7.8	2,100
	December 2019	3.25	7.8	2,080
	March 2020	2.41	7.8	874
	June 2020	2.29	7.6	675
MW7	March 2019	Dry	Dry	Dry
	June 2019	Dry	Dry	Dry
	September 2019	Dry	Dry	Dry
	December 2019	Dry	Dry	Dry
	March 2020	Not Accessible	Not Accessible	Not Accessible
	June 2020	Slime*	Slime*	Slime*
MW8	March 2019	13.66	Casing blocked	Casing blocked
	June 2019	13.69	Casing blocked	Casing blocked
	September 2019	13.77	Casing blocked	Casing blocked
	December 2019	13.76	Casing blocked	Casing blocked
	March 2020	13.76	Casing blocked	Casing blocked
	June 2020	13.71	Casing blocked	Casing blocked

### Notes:

MW6 casing was destroyed in March 2019 and therefore has not been tested since.

MW3 has been removed from the monitoring program and from the EPL because it is installed on BCM lease.

\*slime identified at the bottom of the bore

## Surface Water

Water Storage onsite is expected to be sufficient for at least the next 12 months.

Total rainfall recorded onsite since the beginning of the year is approximately 619 mm which is almost 3 times the amount of rainfall recorded over 12 months in 2019 (277mm)

Approximately 70 mm of rain was recorded during the reporting period.

<b>2020</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
Monthly rain (mm)	109.2	261.2	113.2	65.6	16.0	23.4	31.0						<b>619.6</b>
Cumulative (mm)	109.2	370.4	483.6	549.2	565.2	588.6	619.6						

# Rehabilitation and Clearing

## Rehabilitation

Operations and Environmental departments work together to develop and implement a more efficient rehabilitation program. The aim is to enhance the quantity of areas rehabilitated.

In July, TCM has started the tree planting campaign for 2020, planning to plant approximately 11,000 seedlings on the Northern Rehabilitation areas and approximately 1,000 trees in previously rehabilitated areas on the Southern Emplacement. Targeted species includes Eucalyptus albens, Eucalyptus blakelyi, Eucalyptus crebra, Eucalyptus melliodora, Eucalyptus pilligaensis, Eucalyptus populanea, Eucalyptus macrocarpa, Eucalyptus Melanophloia, Eucalyptus Crebra, Eucalyptus Dealbata and Eucalyptus Dwyerian.

## Clearing

Next tree clearing campaign will be conducted between February and April 2021.

# Complaints

No complaint was received during the quarterly period.

# Environmental Management Plans and Strategies

## Management Plans

TCMs Water Management Plan was approved by DPIE in June 2020 and is available on the company website.

After approval of PA11\_047 MOD 8, TCM will review and update several Management Plans.

## BTM Water Strategy

The Water Management Strategy was approved by DPIE. However the three mines continue to work with a groundwater expert and DPIE to address Natural Resource Access Regulator's (NRAR) comments related to the groundwater model. The BTM groundwater model update process is on going.

## BTM Blast Strategy

The BTM mines revised the BTM Blast Strategy and an updated version was submitted to DPIE for approval in July 2020.

# Annual and Compliance Reporting

## Annual Review and Annual Return Reports

Next Annual Review and Annual Return reports will be submitted to DPIE and EPA in March 2021 respectively.

## Annual Compliance EPBC statement


Annual Compliance EPBC statement was submitted to DAWE in June 2020.

# Compliance and Risk Audits

In July 2020, the company Environmental Resources Management (ERM) was commissioned and endorsed by the DPIE to conduct the 3-yearly Independent Environment Audit (IEA). The biodiversity component of this audit will be conducted in August 2020 and the final report with the findings will be submitted to DPIE in September and published on WHC website thereafter.

As part of the risk based licensing program, the Environment Protection Authority (EPA) reviews the environmental risk assessment for each licence every five years including review of complaints received from the community and self-reports from industry, where necessary, as well as phone discussions with licensees to confirm if any operations or activities have changed since our last inspection. EPA concluded that TCM overall Regulatory Priority for Environmental Risk was “Low”.

**Environmental Risk Category Summary**



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<b>LICENCE NO</b>	12365
<b>LICENCE HOLDER</b>	TARRAWONGA COAL PTY LTD
<b>ASSESSMENT NO</b>	4013408

Environmental Media	Regulatory Priority
Air/Odour - day to day activities	Low
Water - day to day activities	Low
Noise - day to day	Low
Pollution from incidents or unplanned events - acute pollution risk	Low

**Overall Regulatory Priority** Low

# Approval and Licencing

Project Approval (PA11\_047) MOD 8 – Trucking water, was approved in June 2020. This Modification does not propose to change the mining operation or any components of the mine itself, nor does it materially alter the operational workforce however includes a section regarding temporary trucking of water from the Vickery Coal Mine licensed bore to TCM.

TCM is awaiting approval of Modification (MOD7) of Project Approval (PA11\_0047) regarding the Life of Mine.

As the Mining Operations Plan (MOP) Amendment E will expire November 30 2020, TCM is preparing a MOP Amendment F that will cover the period from December 2020 to 30 November 2022. MOP F will be submitted to Resource Regulator by 31<sup>st</sup> August 2020.

# Environmental Improvement and Initiatives

## Dust Management

TCM continues to use dust suppressant on mine haul truck roads and as required.

## Water Management

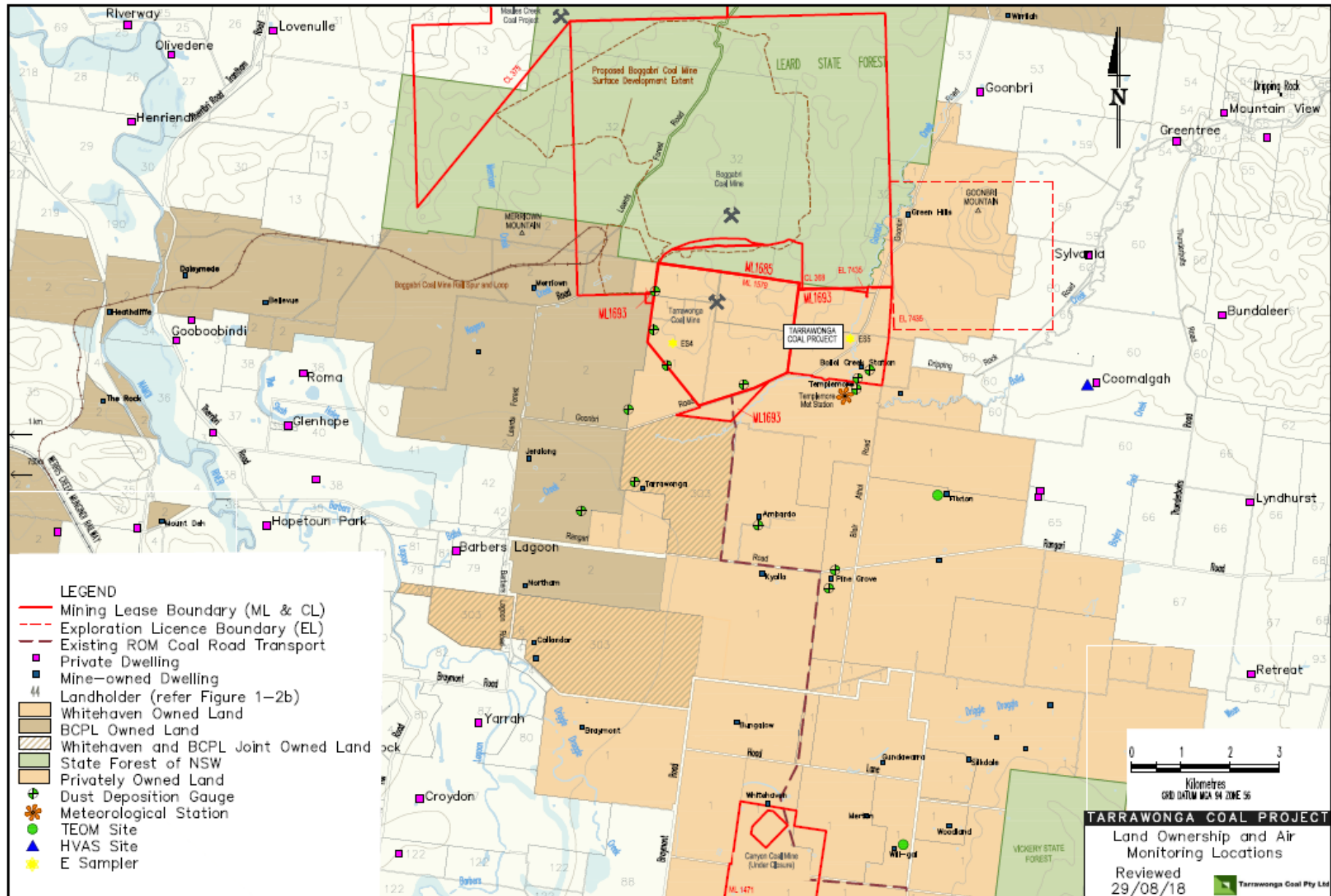
TCM and the dust suppressant supplier investigate options and products to reduce water used for dust mitigation.

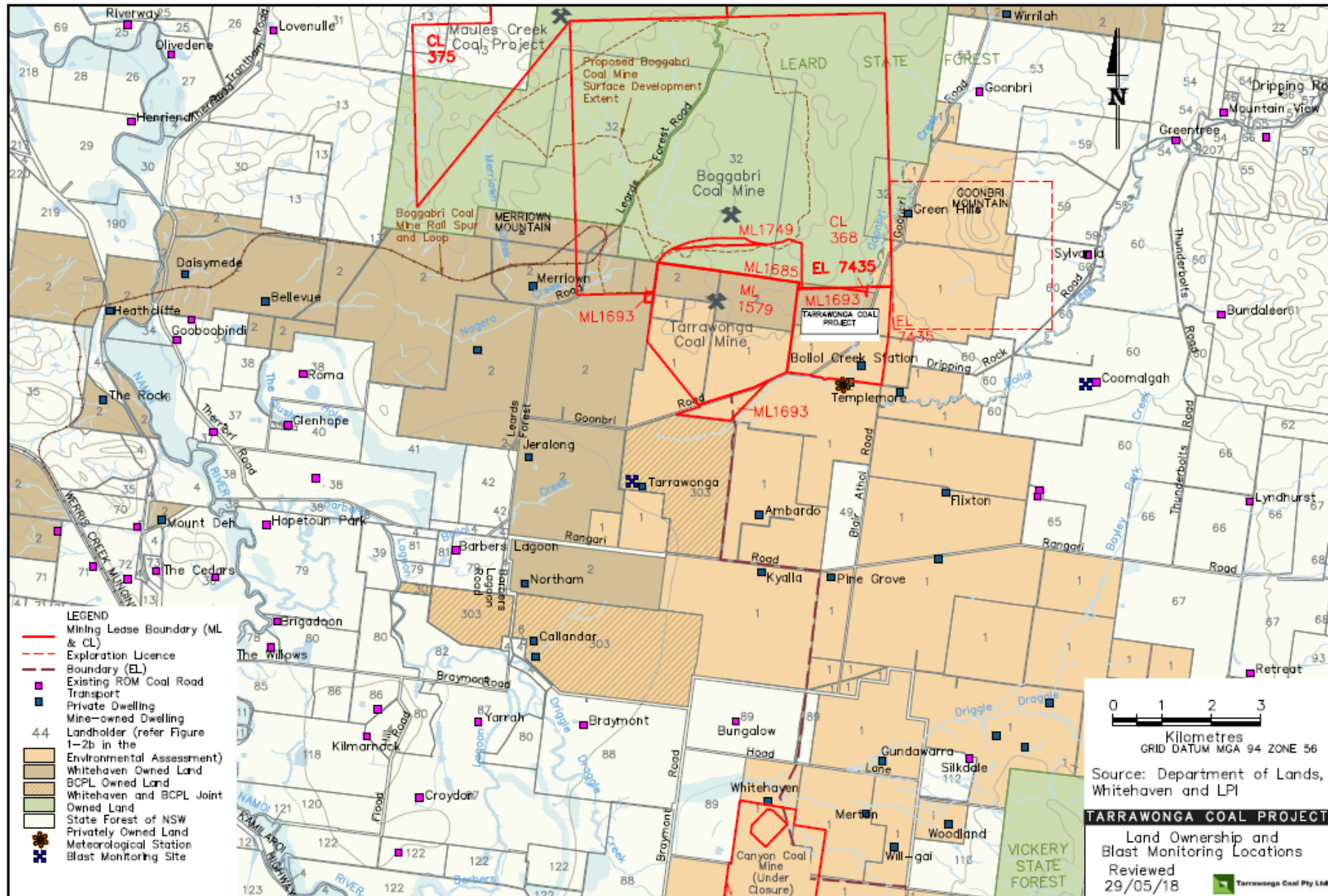
## Rehabilitation

TCM continues to use an All-Terrain Vehicle (ATV) to water the rehabilitated areas and the trees recently planted during the year and as required.

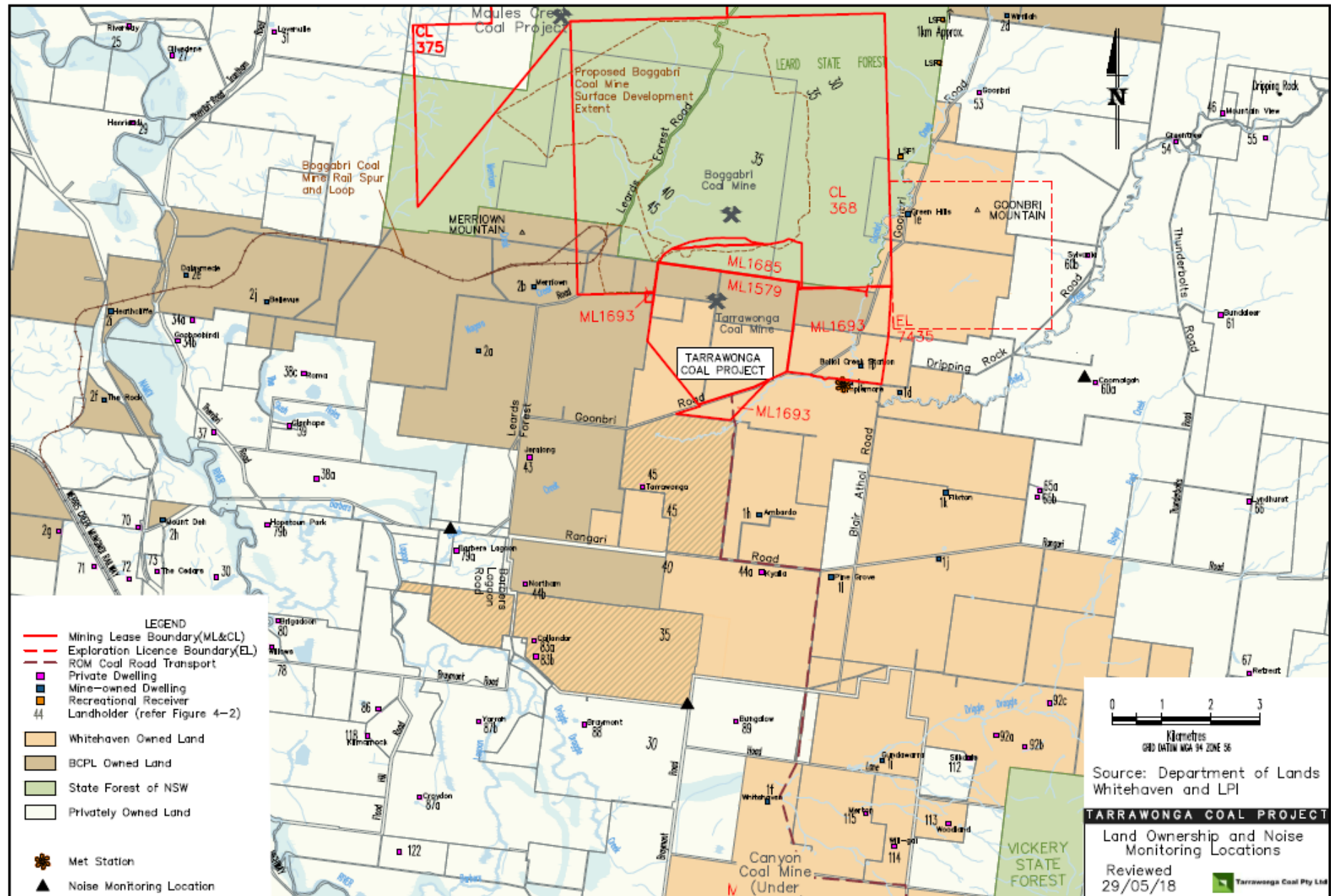
# Appendix A

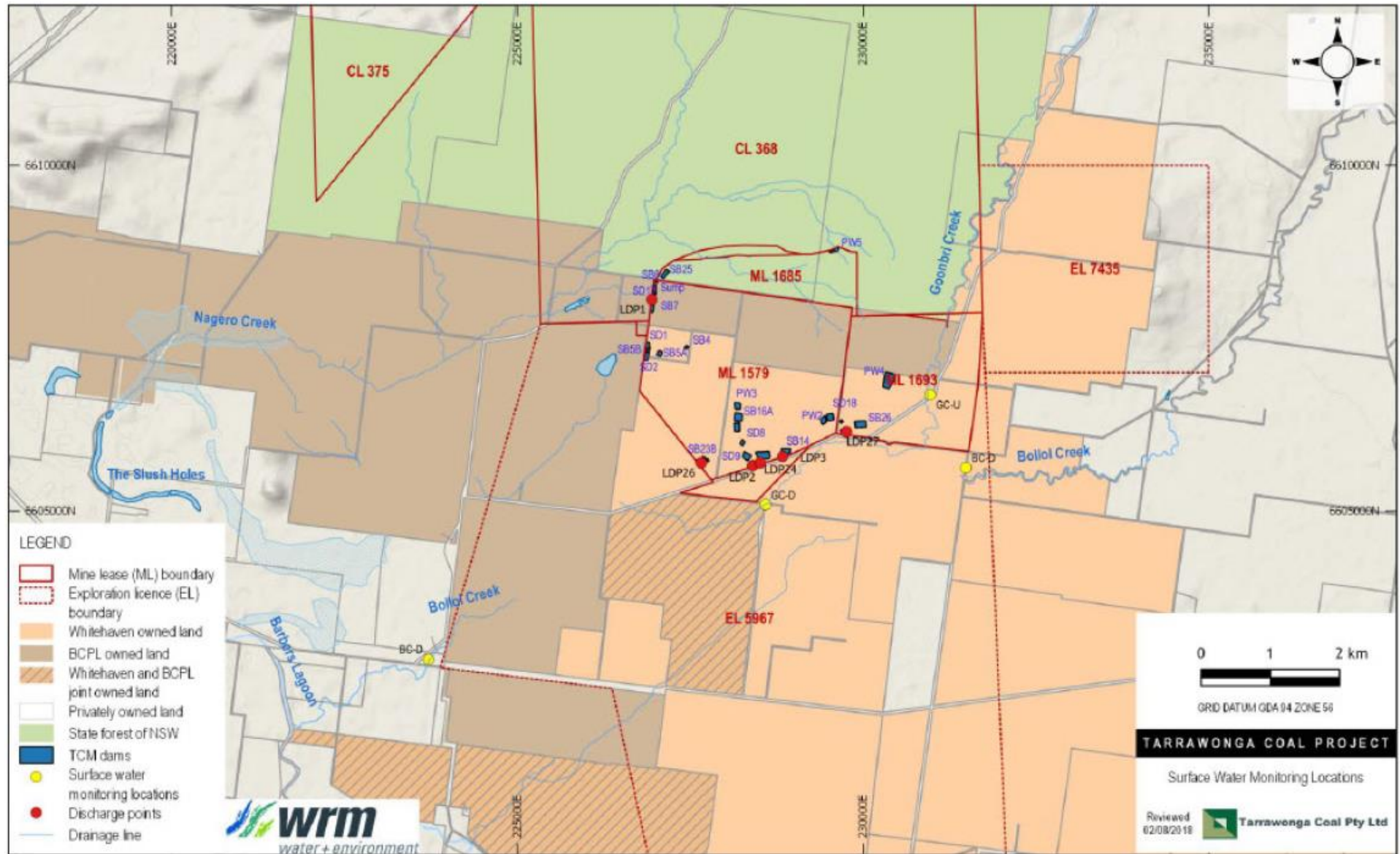




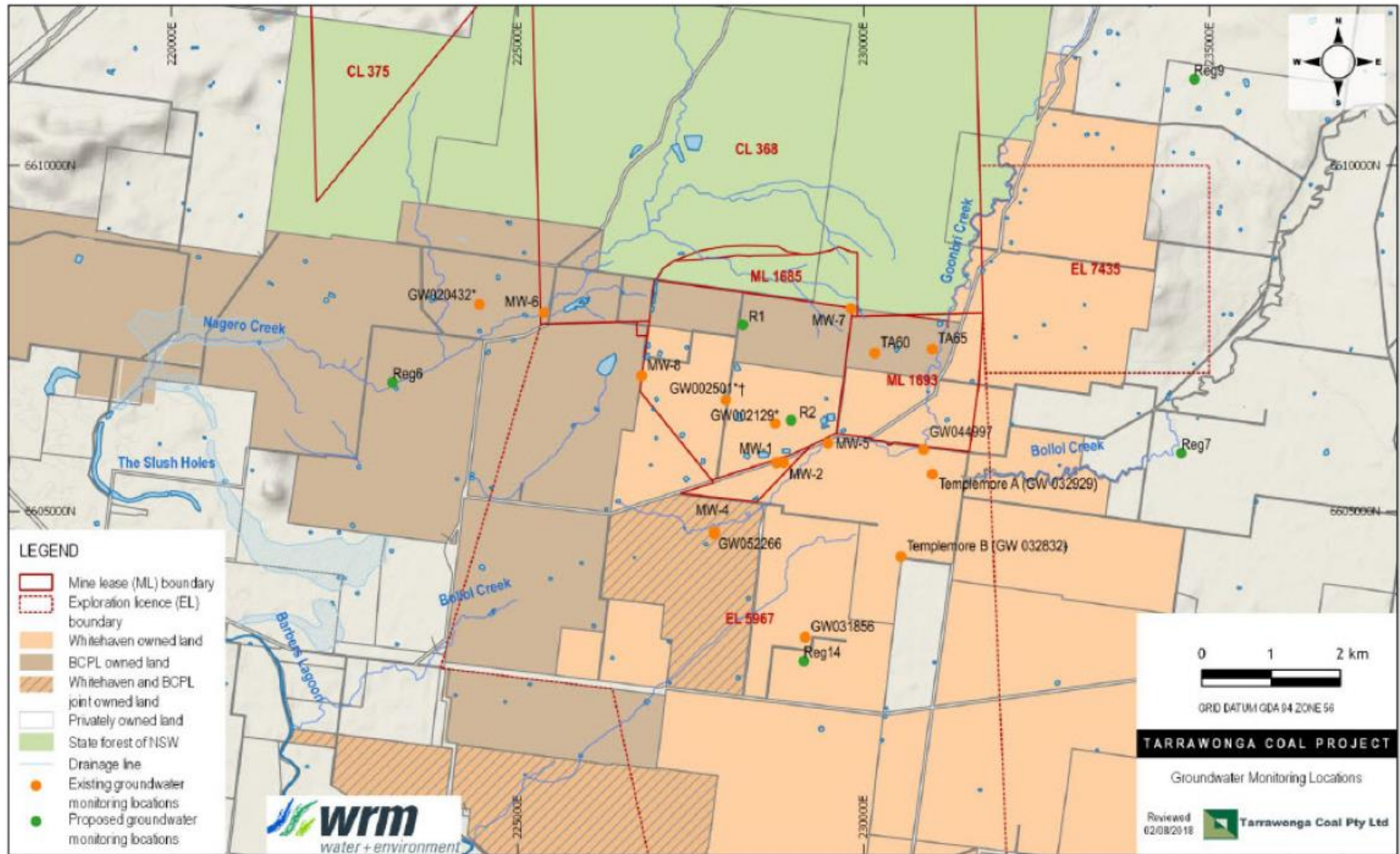








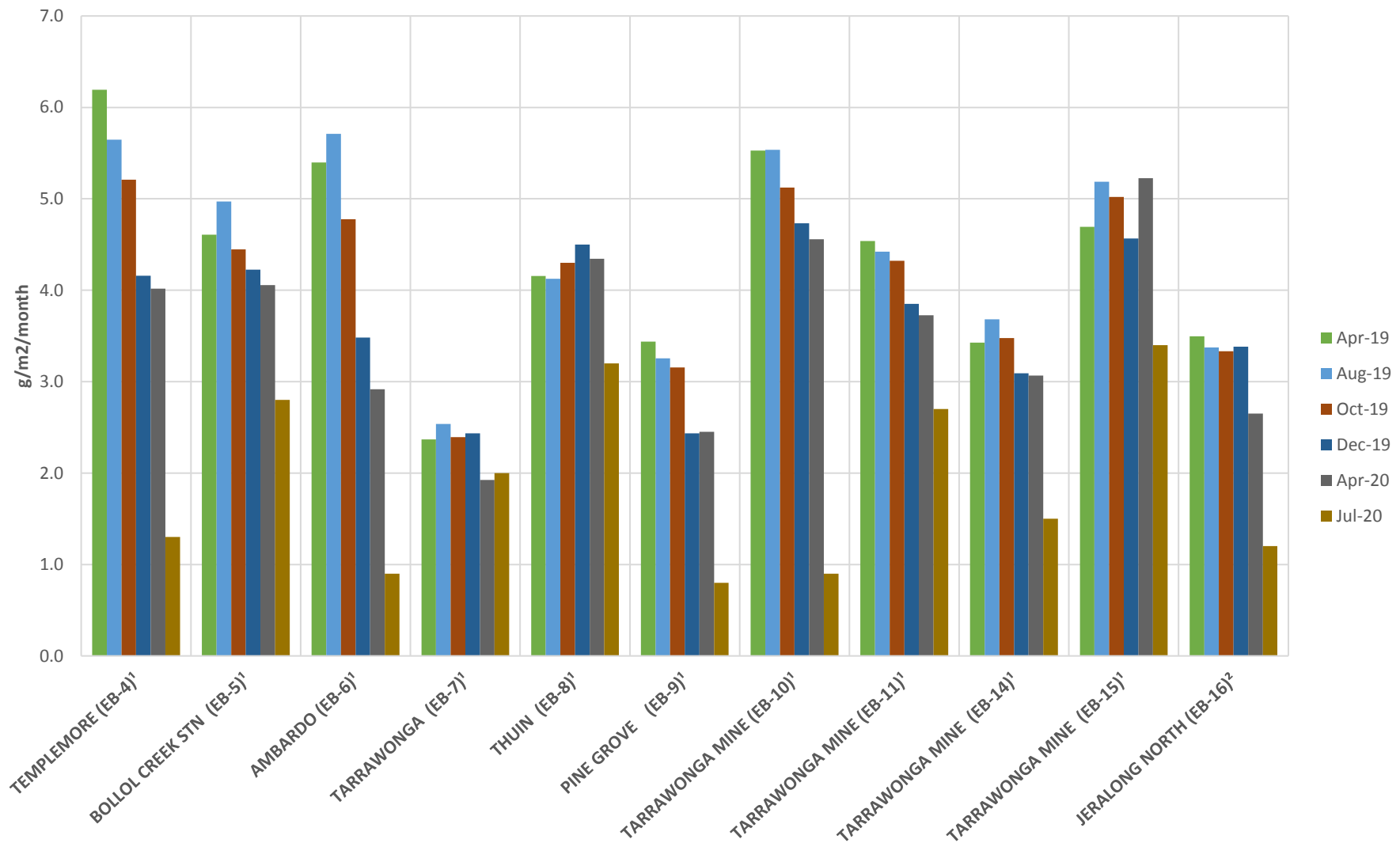




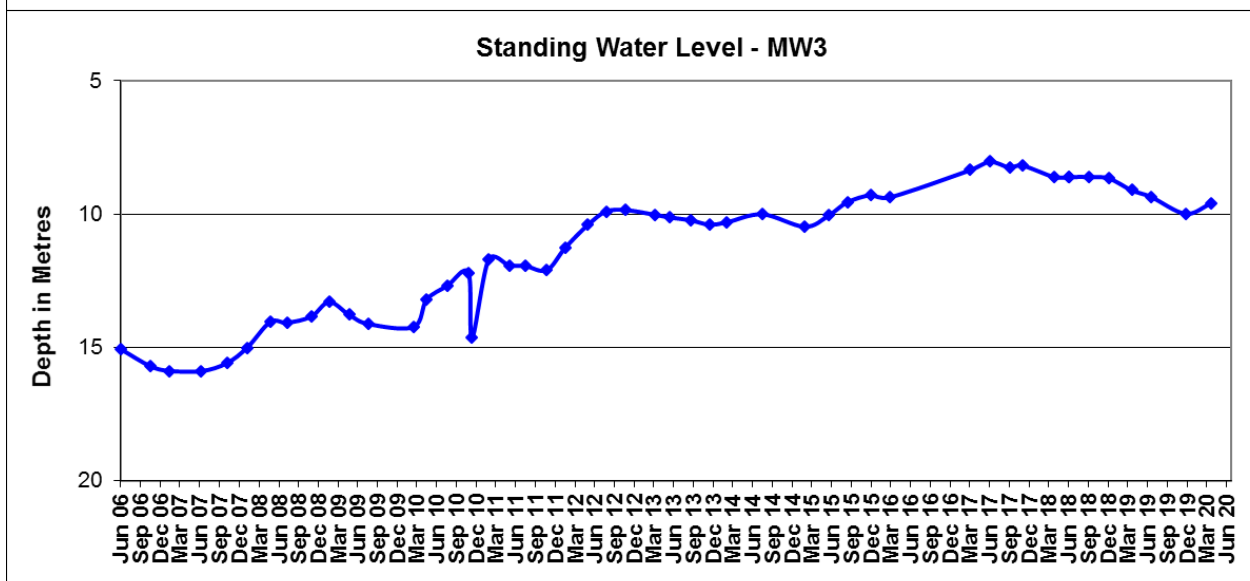
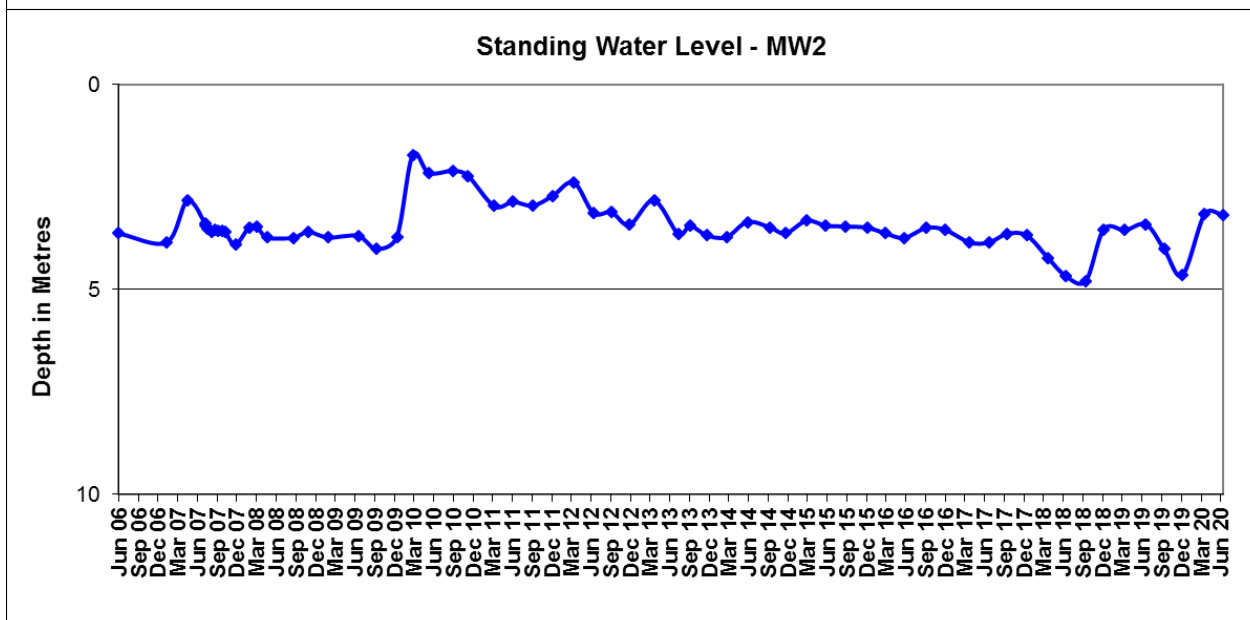
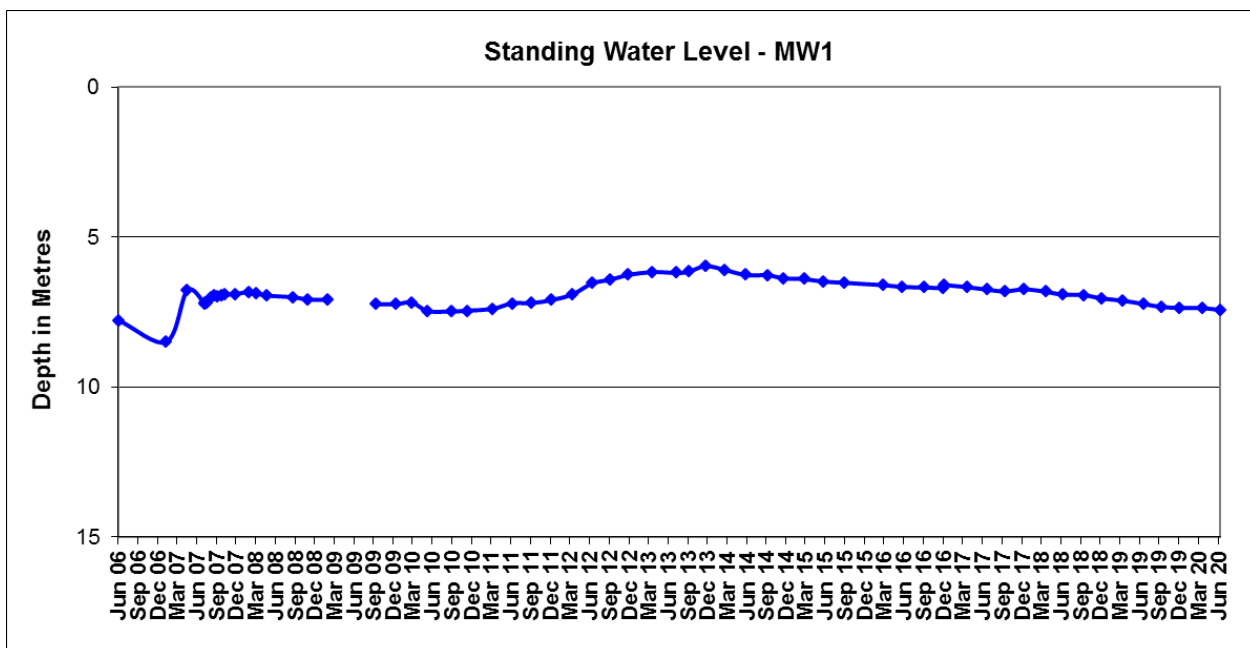
## Appendix B



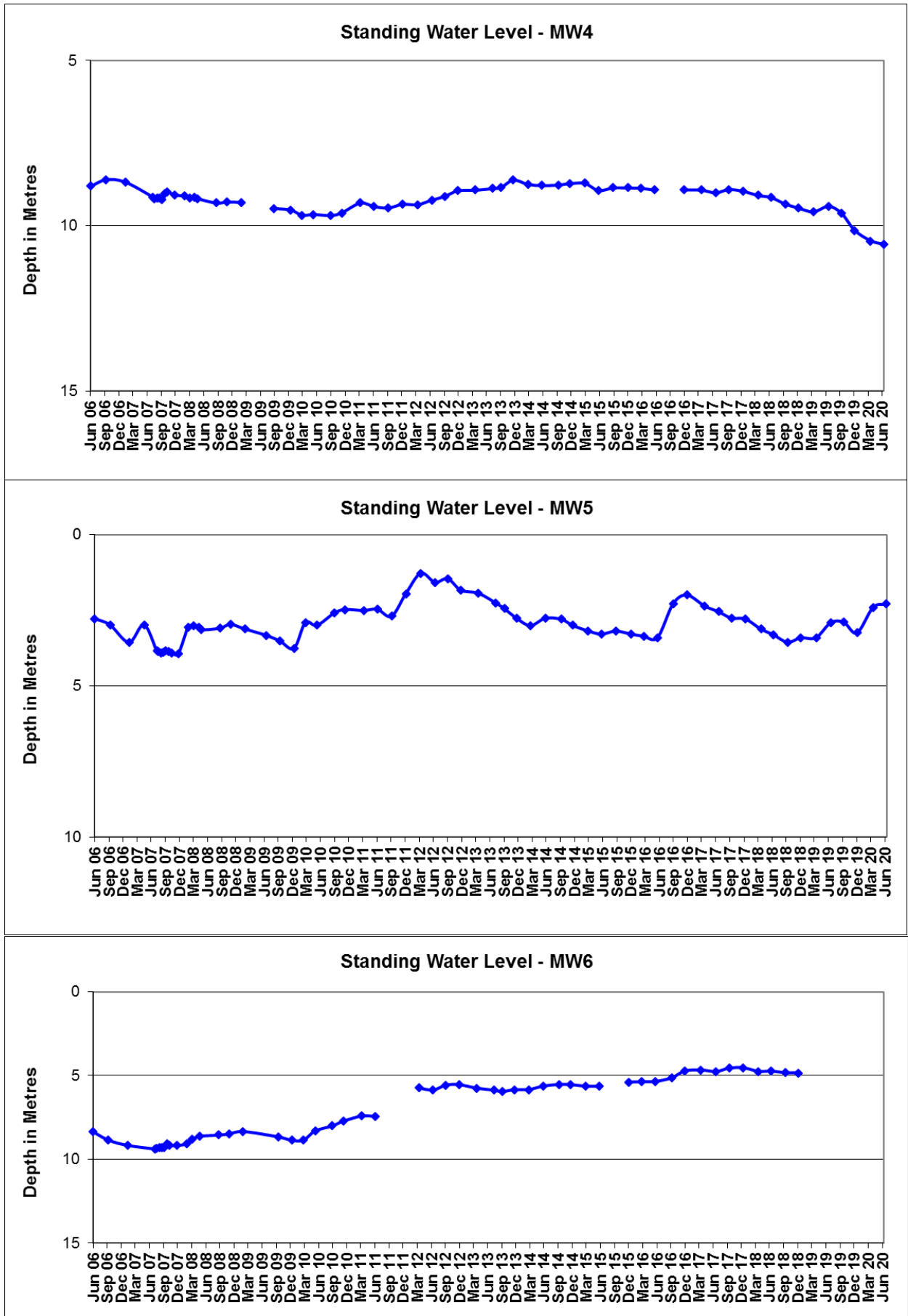
Deposited Dust Gauge Results- Quarterly rolling average [g/m<sup>2</sup>/month]



## Appendix C

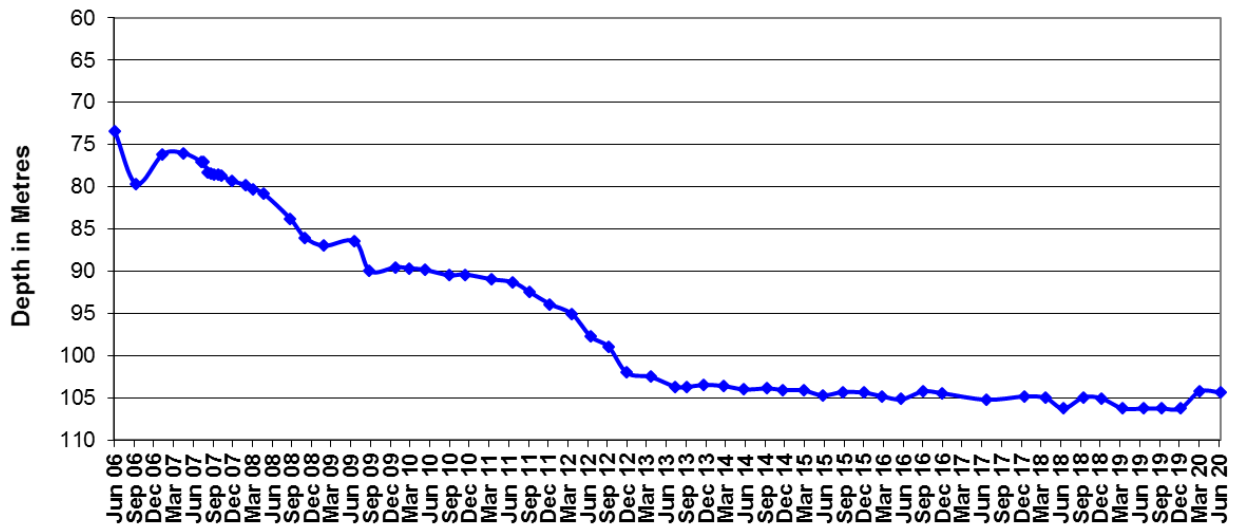


MW3 is no longer part of monitoring because it has been removed from the EPL12365.

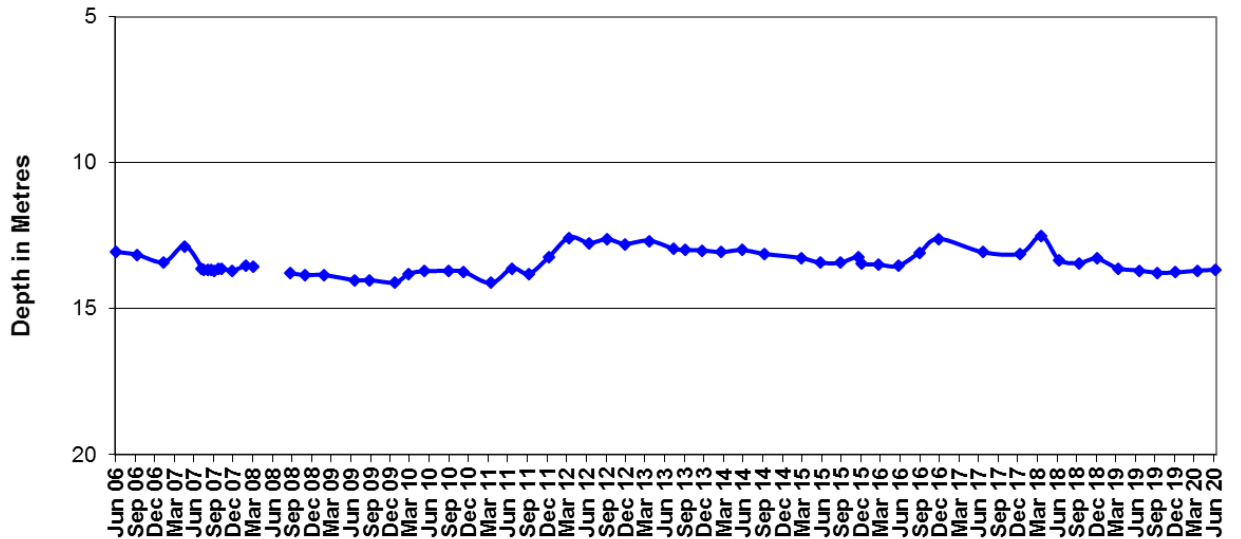


MW6 is no longer part of monitoring because casing was destroyed in March 2019.

**Standing Water Level - MW7**



**Standing Water Level - MW8**



# Minutes of the 61st Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	19 <sup>th</sup> of August 2020 between 10:00AM- 11:15 AM		
Venue	Via Zoom Video conference		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

Interests	LF and JH declared they lease WHC properties		
3. Previous Minutes Actions	All CCC members - expressed their gratitude for all the support provided by JHa over the years.	DR- to write a letter of thanks to JHa for his contribution to the Tarrawonga CCC.	
	DR- regarding alternate members to represent NSC.	DR- to contact General Manager from NSC and confirm if LF could join TCCC as an alternate/permanent member.	To be confirmed at next NSC meeting in September.
	CC- suggested Tarrawonga advertisement in the green flyer.  JH- agreed and suggested community transparency within new management.	DR- to progress with correspondence with alternative and new CCC members, and to consider direct targeting to individuals. DR- to liaise with SM regarding advertisement.	



# Minutes of the 61st Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	19 <sup>th</sup> of August 2020 between 10:00AM- 11:15 AM		
Venue	Via Zoom Video conference		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

4. Business Arising		DR and SM asked for a group vote on the presence of Alex Carynny (WHC Environment officer) in TCCC meetings in the future.	Complete- All CCC Members approved.
	TOo advised: -No change with Covid-19 measures and risk assessments have been reviewed. -Implementation of measures onsite continues. -To date there have been no infected people onsite and attendance to work has been high.		
5. Mine Progress Report	TOo advised: - On track with production rate, - Safety- LTI free-YTD 690 days, - No notifiable incidents have occurred in 70 days, -Overburden and coal movement is on track and the previous FY hit coal target. - Enough water stored onsite after rainfall recorded since beginning of year, - Workshop expansion is completed, - on track to achieve 2.5M ton of coal target and 25M BCM material waste movement.		

# Minutes of the 61st Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	19 <sup>th</sup> of August 2020 between 10:00AM- 11:15 AM		
Venue	Via Zoom Video conference		
<i>Agenda Item</i>	<i>Discussion and Description</i>	<i>Action and Accountability</i>	<i>Status/ Date</i>
6. Environmental Monitoring report	<p>SM- read and explained the Quarterly Environmental Report results.</p> <p>SM- advised</p> <ul style="list-style-type: none"> <li>-there were favourable weather conditions for rehabilitation with rain just before and after planting.</li> <li>- Water Management Plan was approved in June 2020 after 7 times of submission.</li> <li>- BTM and consultant still working with the DPIE to finalise the BTM GW model and expect final report in next few months.</li> </ul> <p>CC- asked question regarding Blast Manahement Plan and Strategy and timing of blasts within the Complex and at TCM and firing around school travelling times.</p> <p>SM- advised that all three mines space out timing of blasts to avoid cumulative impacts, and all mines are constantly communicating and also talking to key contacts and neighbours.</p> <p>JH- advised that this was for Tarrawonga mostly, so other mines within BTM do not adhere to bus times as this was not an issue for them.</p> <p>SM- advised TCM generally schedule blast at</p>	SM - send the details regarding blasting time to CC.	Completed- 28 June 2020

# Minutes of the 61st Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	19 <sup>th</sup> of August 2020 between 10:00AM- 11:15 AM		
Venue	Via ZoomVideo conference		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

	<p>approximately 12.00pm but depending on weather conditions or operational constraints blast is put forward or delayed. The mine is authorised to blast between 9.00am and 5.00pm Monday to Saturday.</p> <p>-Independent Environmental Audit was conducted in July according to PA11_0047 to consider all obligations and conditions within TCM licences and approvals. Positive feedback regarding this and final report will be submitted to DPIE and uploaded on WHC website shortly after.</p> <p>-EPA Audit conducted recently rated TCM with a low environmental risk,</p> <p>-MOD8 (trucking water) of PA11_0047 was approved in June.</p> <p>-MOD7 (reduction of pit extent, realignment of road and creek not required etc) is still under review by DPIE and decision is expected to be made Oct-Nov. 2020.</p> <p>-Current MOP E will expire in Nov. 2020, TCM is preparing Amendment F that address recommendations from Resource Regulator regarding rehabilitation progress and completion</p>		
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# Minutes of the 61st Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	19 <sup>th</sup> of August 2020 between 10:00AM- 11:15 AM		
Venue	Via ZoomVideo conference		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

	<p>targets.</p> <p>JH -asked a question in regards to dams capacity, were all the dams desilted prior to rain event?</p> <p>SM- advised that some were desilted when identified and deemed necessary.</p> <p>JH- after another rain event will there be runoff or discharge?</p> <p>SM- advised sediment dams are designed to spill in response to 38.4mm of rain over 5 days.</p> <p>JH- asked about aerial seeding, and if that will be implemented.</p> <p>SM- advised that aerial seeding will not occur in that particular area of the southern dump because it will be reshaped and rehabilitated by end of the year in accordance with the MOP.</p> <p>JH- Blair and JHa initiated sprinkler systems, will these systems be used again?</p> <p>TOo- advised TCM is working with dustaside product to minimize dust problems and reduce use of water.</p> <p>CC- asked question in regards to SD2 wall failure. Have other dams been inspected onsite to avoid other breaches after more rain events.</p>		
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# Minutes of the 61st Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	19 <sup>th</sup> of August 2020 between 10:00AM- 11:15 AM		
Venue	Via Zoom Video conference		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>
	<p>SM- advised TCM engaged geotechnical engineers to inspect and provide a report with recommendations and to identify risks. Training has occurred with NSW Dam safety expert to provide skills to onsite team.</p> <p>TOO- OCEs conduct daily inspections and Environment team conduct regular inspections. Geotechnical experts will come annually or as required.</p> <p>CC- question regarding rehabilitation, did TCM receive any correspondence from regulators regarding rehabilitation standards?</p> <p>SM- advised the Resource Regulator (RR) undertook a site inspection in 2018 and found that site rehabilitation needed to improve. RR directed TCM to engage an independent ecologist to assess rehabilitation performance and actions resulted from the assessment. These actions will be included in the MOP F that will be submitted at the end of August.</p>		
7. General business	CF- GSC has been cleaning and taking care of entrance to TCM and a long haul roads.		

# Minutes of the 61st Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	19 <sup>th</sup> of August 2020 between 10:00AM- 11:15 AM		
Venue	Via Zoom Video conference		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>

	<p>JH- thanks from RFS for installation of tank at Templemore as Covid-19 may not allow help from other regions.</p> <p>CF- congratulated WHC for Covid response and management plan as community was concerned about mine workers travelling in and out.</p> <p>CC- traineeships stance now that JHa has left TCM.</p> <p>TOo – TCM will continue the traineeship program (currently 4 trainees at TCM). New program (Crib Relief Crew) has been implemented, including 6 local people. This is more of a “kid-friendly” roster for locals and mothers. WHC is looking into a more formal traineeship with Gunnedah TAFE, which will allow operators to get formal qualifications.</p> <p>JH- will school initiatives still continue?</p> <p>TOo- TCM will continue to support school programs but site visits is temporally inhibited by Covid restrictions.</p> <p>TOo- invited any CCC members with any community based questions/ feedback/ initiatives to contact him or the Environment team and not to</p>		
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# Minutes of the 61st Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	19 <sup>th</sup> of August 2020 between 10:00AM- 11:15 AM		
Venue	Via Zoom Video conference		
<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>
	<p>wait until CCC meeting.</p> <p>DR- ARTC Environmental Manager is putting together a subscription list for their newsletter.</p> <p>Namoi air quality advisory committee is to sit for a 2 years term, and this came to an end in May 2020. EPA is readvertising for members and DR encourages all to apply if interested.</p> <p>DR- reminder the LSF Environmental Trust received \$100k from each mine and is taking applications for natural, built and social environment providing it's within 25km of the forest. Please spread words about this to other community members.</p>		
8.Complaints	SM- no Complaint received since last TCCC meeting.		
9. Next Meeting and Other Comments	<p>DR- next TCCC meetings will be held on 28<sup>th</sup> October 2020.</p> <p>-next BTM CCC meetings to be held 29<sup>th</sup> of October 2020.</p>		



# Tarrawonga Coal Mine Community Consultative Committee Meeting #62

Quarterly Environmental Monitoring Report  
August 1 – October 30, 2020



*Photo taken in October 2020 in a section of the Northern emplacement area that has been rehabilitated in July 2020 showing good signs of growth.*

This report has been prepared for the Community Consultative Committee (CCC) meeting to show Environmental monitoring performance at Tarrawonga Coal Mine (TCM) for the reporting period from August 1 2020 to October 30, 2020. Maps with all the monitoring locations are available in *Appendix A*.

# Noise Monitoring

Attended noise monitoring was conducted at the “Bungalow” (TN4), “Barbers Lagoon” (TN3) and “Matong” (TN2) properties from 14<sup>th</sup> to the 18<sup>th</sup> of September 2020. The noise criterion for the mine is 35dB(A) Leq (15 min) for all operating times.

The results below show that noise emissions from the mine did not exceed the operational noise criterion at the “Barbers Lagoon”, “Bungalow” or “Matong” monitoring locations during the monitoring event during the entire monitoring period.

(See below summary tables extracted from Wilkinson Murray report -19360-T-05-(Q3 2020)).

**Table 4-1 Comparison of noise levels between TN2 and 573b Coomalgalah**

Date	Time	Noise Limits	TN2 Mine L <sub>Aeq</sub> Noise Level (dB)	573b Coomalgalah Mine L <sub>Aeq</sub> Noise Level (dB)	
		LA <sub>eq,15 min</sub>	Measured Mine Contribution	Commensurate Mine Compliance Level	Exceedance
14/09/2020	09:45	35	24	15	0
	10:00	35	23	14	0
	10:15	35	21	12	0
	10:32	35	22	13	0
	10:48	35	22	13	0
	11:03	35	22	13	0
	21:23	35	<20	<11	0
	21:40	35	<20	<11	0
	22:00	35	<20	<11	0
	22:16	35	<20	<11	0
	22:32	35	<20	<11	0
	22:47	35	<18	<9	0
15/09/2020	10:18	35	23	14	0
	10:49	35	<24	<15	0
	21:25	35	<6 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0
	21:41	35	<6 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0

Date	Time	Noise Limits	TN2 Mine $L_{Aeq}$ Noise Level (dB)	573b Coomalgalah Mine $L_{Aeq}$ Noise Level (dB)	
		$L_{Aeq,15\ min}$	Measured Mine Contribution	Commensurate Mine Compliance Level	Exceedance
16/09/2020	22:00	35	<6 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0
	22:16	35	<7 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0
	22:31	35	<9 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0
	22:47	35	<18 (I/A) <sup>1</sup>	<9 (I/A) <sup>1</sup>	0
	09:29	35	<25	<16	0
	09:45	35	<24	<15	0
	10:02	35	<24	<15	0
	10:34	35	<24	<15	0
	10:50	35	<24	<15	0
	21:22	35	34	25	0
	21:38	35	31	22	0
	22:00	35	<29	<20	0
	22:16	35	26	17	0
	22:32	35	25	16	0
	22:48	35	25	16	0
17/09/2020	10:46	35	<21	<12	0
	11:04	35	<21	<12	0
	11:20	35	<21	<12	0
	11:36	35	<21	<12	0
	11:53	35	<21	<12	0
	12:08	35	<21	<12	0
	21:25	35	<8 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0
	21:41	35	<20	<11	0
	22:00	35	<7 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0
	22:15	35	<8 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0
	22:31	35	<8 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0
	22:46	35	<6 (I/A) <sup>1</sup>	0 (I/A) <sup>1</sup>	0

<sup>1</sup> Where mine noise was inaudible throughout the entire measurement, it is assumed that the contribution is less than 10dB below the measured  $L_{Aeq}$ .

Noise from the mine must not exceed 45 dB(A) L1 (1 min) between 10 pm and 7 am. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the mine. The results of the sleep disturbance monitoring show that the measured L1 (1 min) noise level did not exceed the sleep disturbance criterion.

**Table 4-2 Comparison of maximum noise events between TN2 and 573b Coomalgalah**

Date	Time	Noise Limits	TN2 Mine L <sub>Amax</sub> Noise Level (dB)		573b Coomalgalah Mine L <sub>Amax</sub> Noise Level (dB)	
		LA <sub>1,1</sub> min	Noise Source	Measured Level	Commensurate Mine Compliance Level	Exceedance
14/09/2020	22:00	45	-	NM	-	0
	22:16	45	-	NM	-	0
	22:32	45	-	NM	-	0
	22:47	45	-	NM	-	0
15/09/2020	22:00	45	-	I/A	-	0
	22:16	45	-	I/A	-	0
	22:31	45	-	I/A	-	0
	22:47	45	-	I/A	-	0
16/09/2020	22:00	45	Horn	35	26	0
	22:16	45	-	NM	-	0
	22:32	45	Engine	31	22	0
	22:48	45	-	NM	-	0
17/09/2020	22:00	45	-	I/A	-	0
	22:15	45	-	I/A	-	0
	22:31	45	-	I/A	-	0
	22:46	45	-	I/A	-	0

Note: NM indicates a significant maximum noise event was not observed, I/A indicates the mine was inaudible during the measurement period.

**Table 4-3 Summary of noise assessment at TN3**

Date	Time	TN3			
		Noise Limits	Mine L <sub>Aeq</sub> Noise Level (dB)		
		L <sub>Aeq,15 min</sub>	Measured Mine Contribution	Additional LF Penalty	Exceedance
14/09/2020	13:59	35	<17 (I/A) <sup>1</sup>	-	0
	14:30	35	<17 (I/A) <sup>1</sup>	-	0
	14:47	35	<19 (I/A) <sup>1</sup>	-	0
	19:50	35	<16 (I/A) <sup>1</sup>	-	0
	20:05	35	<14 (I/A) <sup>1</sup>	-	0
	00:48	35	<20 (I/A) <sup>1</sup>	-	0
	01:03	35	<17 (I/A) <sup>1</sup>	-	0
	01:18	35	<17 (I/A) <sup>1</sup>	-	0
	01:33	35	<18 (I/A) <sup>1</sup>	-	0
15/09/2020	14:06	35	<14 (I/A) <sup>1</sup>	-	0
	14:21	35	<13 (I/A) <sup>1</sup>	-	0
	14:36	35	<13 (I/A) <sup>1</sup>	-	0
	14:51	35	<14 (I/A) <sup>1</sup>	-	0
	15:08	35	<13 (I/A) <sup>1</sup>	-	0
	15:24	35	<15 (I/A) <sup>1</sup>	-	0
	19:39	35	<14 (I/A) <sup>1</sup>	-	0
	19:54	35	<14 (I/A) <sup>1</sup>	-	0
16/09/2020	13:53	35	<23 (I/A) <sup>1</sup>	-	0
	00:45	35	<13 (I/A) <sup>1</sup>	-	0
	01:00	35	<13 (I/A) <sup>1</sup>	-	0
	01:15	35	<12 (I/A) <sup>1</sup>	-	0
	01:30	35	<12 (I/A) <sup>1</sup>	-	0
	12:00	35	<13 (I/A) <sup>1</sup>	-	0
17/09/2020	12:15	35	<13 (I/A) <sup>1</sup>	-	0
	12:30	35	<13 (I/A) <sup>1</sup>	-	0
	12:45	35	<14 (I/A) <sup>1</sup>	-	0
	13:00	35	<15 (I/A) <sup>1</sup>	-	0
	13:15	35	<13 (I/A) <sup>1</sup>	-	0
	21:30	35	<12 (I/A) <sup>1</sup>	-	0
	21:45	35	<12 (I/A) <sup>1</sup>	-	0
	22:00	35	<12 (I/A) <sup>1</sup>	-	0
	22:15	35	<12 (I/A) <sup>1</sup>	-	0
	22:30	35	<23	-	0
	22:45	35	<24	-	0

<sup>1</sup> Where mine noise was inaudible throughout the entire measurement, it is assumed that the contribution is less

**Table 4-4 Summary of maximum noise events at TN3**

Date	Time	TN3			
		Noise Limits	Mine L <sub>Amax</sub> Noise Level (dB)		
		LA <sub>1,1 min</sub>	Noise Source	Measured Level	Exceedance
14/09/2020	00:48	45	-	NM	0
	01:03	45	-	NM	0
	01:18	45	-	NM	0
	01:33	45	-	NM	0
16/09/2020	00:45	45	-	NM	0
	01:00	45	-	NM	0
	01:15	45	-	NM	0
	01:30	45	-	NM	0
17/09/2020	22:00	45	-	NM	0
	22:15	45	-	NM	0
	22:30	45	-	NM	0
	22:45	45	-	NM	0

Note: NM indicates a significant maximum noise event was not observed.



**Table 4-5 Summary of noise assessment at TN4**

Date	Time	TN4			
		Noise Limits	Mine L <sub>Aeq</sub> Noise Level (dB)		
		L <sub>Aeq,15 min</sub>	Measured Mine Contribution	Additional LF Penalty	Exceedance
14/09/2020	11:57	35	<12 (I/A) <sup>1</sup>	-	0
	12:12	35	<12 (I/A) <sup>1</sup>	-	0
	12:30	35	<12 (I/A) <sup>1</sup>	-	0
	12:47	35	<13 (I/A) <sup>1</sup>	-	0
	13:03	35	<12 (I/A) <sup>1</sup>	-	0
	13:19	35	<13 (I/A) <sup>1</sup>	-	0
	20:40	35	<14 (I/A) <sup>1</sup>	-	0
	20:56	35	<12 (I/A) <sup>1</sup>	-	0
	23:23	35	<23	-	0
	23:38	35	<22	-	0
	23:55	35	23	-	0
	00:10	35	24	-	0
15/09/2020	11:55	35	<12 (I/A) <sup>1</sup>	-	0
	12:12	35	<13 (I/A) <sup>1</sup>	-	0
	12:45	35	<12 (I/A) <sup>1</sup>	-	0
	13:01	35	<11 (I/A) <sup>1</sup>	-	0
	13:19	35	<12 (I/A) <sup>1</sup>	-	0
	20:36	35	<12 (I/A) <sup>1</sup>	-	0
	20:52	35	<8 (I/A) <sup>1</sup>	-	0
	23:23	35	24	-	0
16/09/2020	23:54	35	24	-	0
	11:27	35	<16 (I/A) <sup>1</sup>	-	0
	12:00	35	<16 (I/A) <sup>1</sup>	-	0
	12:15	35	<16 (I/A) <sup>1</sup>	-	0
	12:49	35	<16 (I/A) <sup>1</sup>	-	0
	20:35	35	<22	-	0
	20:51	35	<13 (I/A) <sup>1</sup>	-	0
	23:38	35	<20	-	0
	23:55	35	<20	-	0
	00:10	35	<20	-	0
17/09/2020	10:18	35	<15 (I/A) <sup>1</sup>	-	0
	10:33	35	<13 (I/A) <sup>1</sup>	-	0
	10:48	35	<14 (I/A) <sup>1</sup>	-	0
	11:03	35	<13 (I/A) <sup>1</sup>	-	0

Date	Time	TN4			
		Noise Limits	Mine L <sub>Aeq</sub> Noise Level (dB)		
		L <sub>Aeq,15 min</sub>	Measured Mine Contribution	Additional LF Penalty	Exceedance
	11:18	35	<13 (I/A) <sup>1</sup>	-	0
	11:33	35	<11 (I/A) <sup>1</sup>	-	0
	20:10	35	<16 (I/A) <sup>1</sup>	-	0
	20:25	35	<15 (I/A) <sup>1</sup>	-	0
	23:24	35	27	-	0
	23:40	35	26	-	0
	23:56	35	26	-	0

<sup>1</sup> Where mine noise was inaudible throughout the entire measurement, it is assumed that the contribution is less than 10 dB below the measured L<sub>Aeq</sub>.



**Table 4-6 Summary of maximum noise events at TN4**

Date	Time	TN4			
		Noise Limits		Mine $L_{Amax}$ Noise Level (dB)	
		$LA_{1,1 min}$	Noise Source	Measured Level	Exceedance
14/09/2020	23:23	45	-	NM	0
	23:38	45	-	NM	0
	23:55	45	-	NM	0
	00:10	45	-	NM	0
15/09/2020	23:23	45	-	NM	0
	23:54	45	-	NM	0
	23:38	45	-	NM	0
16/09/2020	23:55	45	-	NM	0
	00:10	45	-	NM	0
	23:24	45	-	NM	0
17/09/2020	23:40	45	-	NM	0
	23:56	45	-	NM	0

Note: NM indicates a significant maximum noise event was not observed.

The real time noise monitor located on the “Coomalgah” property remains a management tool so the noise criteria are not applicable at that site. Level of noise recorded at that location is managed according to the noise management plan and trigger action response plan.

# Blast Monitoring

## Blasting Results

Since 2006, there have been 1006 blasts (until 31/10/2020) at TCM.

There has been one blast overpressure recorded at 119.9dB at the project related property, Tarrawonga on 29/08/20. However as this is not a compliance site it was not reported to EPA and Department of Planning. In accordance with ML1579, the Resources Regulator was notified but had no further comments.

The highest result for ground vibration was 1.27 mm/s recorded at the Coomalgah monitor on the 28/09/2020.

**Table- 2: Max Peak Overpressure and Ground Pressure for the Quarter**

Monitor Location	Date	Max. Peak Overpressure (dB)	Criterion (dB)	Date	Max. Peak Ground Pressure (mm/s)	Criterion (mm/s)
Tarrawonga*	28/08/20	119.90	N/A	14/08/20	0.69	N/A
Coomalgah	19/08/20	107.7	120	28/09/20	1.27	10

*\*Limit Not applicable according to EPL and PA11\_0047 because project related property.*

# Air Quality Monitoring

## Dust Deposition Results

**Table 3** shows deposited dust gauge results over 12 months. All the monitors are located on project related land; as such compliance criteria (4g/m<sup>2</sup>/month) do not apply. Overall deposited dust trends remain steady during the reporting period (refer graph in *Appendix B*)

MONTH	TEMPLEMORE (EB-4)	BOLLOL CREEK STN (EB-5)	AMBARDI (EB-6)	TARRAWONGA (EB-7)	THUIN (EB-8)	PINE GROVE (EB-9)	TARRAWONGA MINE (EB-10)	TARRAWONGA MINE (EB-11)	TARRAWONGA MINE (EB-14)	TARRAWONGA MINE (EB-15)	JERALONG NORTH (EB-16)
Sep-19	5.4	4.9	4.9	2.5	4.2	3.2	5.4	4.3	3.6	5.1	3.3
Oct-19	5.2	4.4	4.8	2.4	4.3	3.2	5.1	4.3	3.5	5.0	3.3
Nov-19	5.3	4.4	3.9	2.4	4.3	2.9	4.6	4.2	2.9	4.8	3.3
Dec-19	5.3	4.8	4.1	2.5	4.5	2.6	4.8	3.8	2.9	4.8	3.5
Jan-20	3.5	29.5#	3.5	2.5	3.5	6.8	10.9	2.8	2.5	3.3	2
Feb-20	8.1	##	5.4	2.5	5.7	5	4.2	5.9	7.6	10.4	3.8
Mar-20	1.7	##	2.2	2	6.2	2.9	8.3	4.1	2.8	4	2.3
April-20	2.2	3	7.7	0.7	15.9	0.8	2.5	1.9	1.5	3.8	5.2
May-20	3	2.5	1.4	2.4	3.2	1.2	4.4	2.4	2.3	4.4	4.2
Jun-20	3.1	2	1.1	1	2.7	1.5	1.9	2.5	1.8	5.3	2.7
Jul-20	1.3	2.8	0.9	2	3.2	0.8	0.9	2.7	1.5	3.4	1.2
Aug-20	1.1	1.8	1.1	0.5	1.8	0.7	1.9	2	1.2	3.7	0.8
Sep-20	1.4	19.9#	1.0	0.9	2.4	1.9	0.9	1.3	1.7	3.6	1.9
Oct-20	0.9	2.1	1.3	1.1	++	1.2	3.1	1.9	2.3	5.5	2.5
<b>12 MONTH ROLLING AVERAGE</b>	3.3	3.0	2.6	1.9	4.2	2.2	4.3	2.9	2.6	4.6	2.9

#Sample was contaminated with Insects, bird droppings and plant material all noted on the field sheet.

## monitoring site damaged during the February flood and not sampled

++ EB08 was decommissioned due to reshaping activities at the Southern Emplacement area.

**Table 3 – Deposited Dust Gauge Results [g/m<sup>2</sup>/month]**

### High Volume Air sampler (PM10) Results

The High Volume Air Sampler (HVAS) installed at Coomalgah property monitors level of Particle Matter under 10 micron (PM<sub>10</sub>). It operates for 24hr every 6 days. **Table 4** shows all the 24hr average values recorded for this quarter.

**Table- 4: HVAS PM10 24 hr average levels for the Quarter**

Date	24hr averaged PM10 (µg/m³)	Criterion 24hr average (µg/m³)	Comments
31/07/2020	3.2	<b>50</b>	Nil
6/08/2020	9.1		
12/08/2020	5.4		
18/08/2020	3		
24/08/2020	6.6		
30/08/2020	14.5		
5/09/2020	9.8		
11/09/2020	4.7		
17/09/2020	22.3		
23/09/2020	12.4		
29/09/2020	12.1		
05/10/2020	15.0		
11/10/2020	9.5		
17/10/2020	34.2		
23/10/2020	11.3		
29/10/2020	11.3		

#### Real-time Air monitoring (PM<sub>10</sub>)

According to the current Air Quality and Greenhouse gas Management Plan, the real time air quality unit (TEOM) installed at the “Flixton” property monitors PM<sub>10</sub> levels in ambient air. It is an operational management tool and dust levels nearing or reaching the nominated criteria will trigger actions onsite to assess the source of dust and modify operations if it is determined to be related to Tarrawonga operations.



*TEOM installed at Flixton property*

Three portable dust (PM<sub>10</sub>) monitors have improved the real-time dust monitoring network and assist the operation to mitigate any potential dust generated by the operation.



*Portable and real-time dust monitor installed at TCM in November 2018*

# Water Monitoring

## Groundwater

Routine groundwater monitoring was undertaken in September 2020 and showed in **Table 5** (refer to graphs in *Appendix C*).

**Table 5- Groundwater results Summary**

Site	Date	SWL (mbgl)	pH (units)	Elect. Conductivity (µS/cm)
<b>MW1</b>	September 2019	7.32	8.0	3,440
	December 2019	7.35	8.0	3,510
	March 2020	7.36	8.0	3,520
	June 2020	7.42	7.8	3,490
	September 2020	7.27	8.16	3,260
<b>MW2</b>	September 2019	4.01	6.9	530
	December 2019	4.65	7.1	560
	March 2020	3.15	7.6	496
	June 2020	3.18	7.3	490
	September 2020	3.39	7.39	435
<b>MW4</b>	September 2019	9.62	7.4	3,460
	December 2019	10.14	7.3	3,530
	March 2020	10.46	7.7	3,600
	June 2020	10.57	7.4	3,530
	September 2020	10.38	8.02	3,380
<b>MW5</b>	September 2019	2.90	7.8	2,100
	December 2019	3.25	7.8	2,080
	March 2020	2.41	7.8	874
	June 2020	2.29	7.6	675
	September 2020	2.34	8.09	2,090
<b>MW7</b>	September 2019	Dry	Dry	Dry
	December 2019	Dry	Dry	Dry
	March 2020	Not Accessible	Not Accessible	Not Accessible
	June 2020	Slime*	Slime*	Slime*
	September 2020	Not Accessible	Not Accessible	Not Accessible
<b>MW8</b>	September 2019	13.77	Casing blocked	Casing blocked
	December 2019	13.76	Casing blocked	Casing blocked
	March 2020	13.76	Casing blocked	Casing blocked
	June 2020	13.71	Casing blocked	Casing blocked
	September 2020	13.44	Casing blocked	Casing blocked

\*‘slime on end of probe’ noted on field sheet



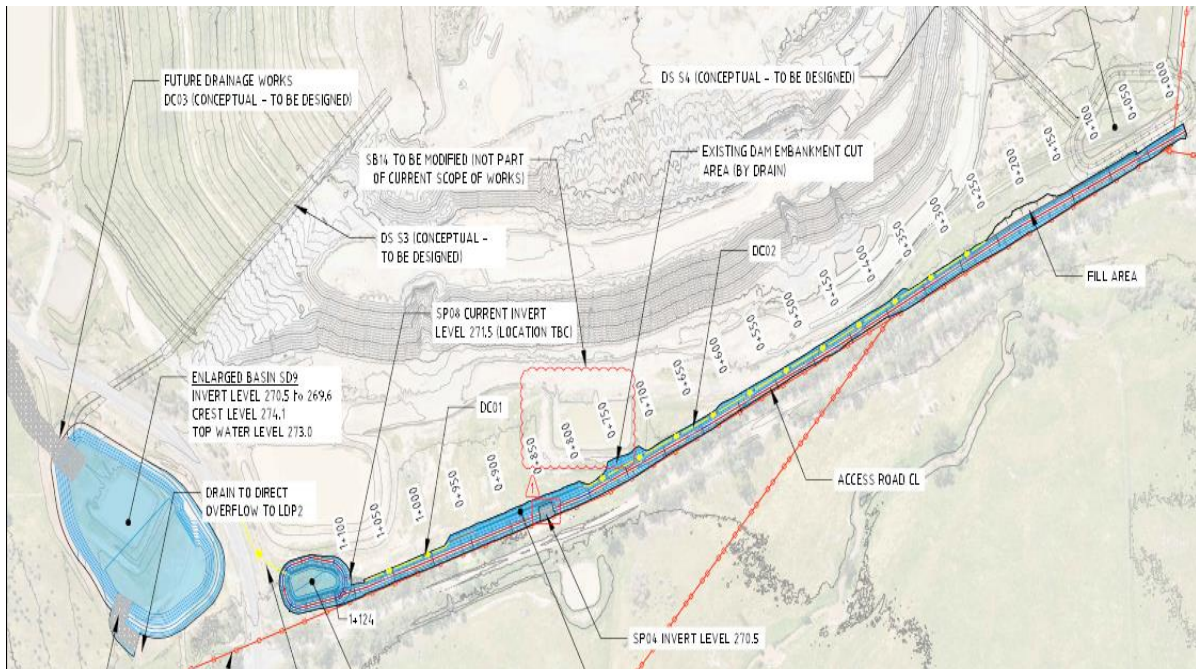
## Surface Water

Water storage onsite is expected to be sufficient for at least the next 12 months.

Total Rainfall recorded onsite since the beginning of the year is approximately 740mm which is almost three times the amount of rainfall recorded over a 12 month period in 2019 (277mm)

2020	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Monthly Rain (mm)	109.2	261.2	113.2	65.6	16.0	23.4	31.0	38.3	30.2	52.4 (to 26/10)			<b>740.3</b>
Cumulative (mm)	109.2	370.4	483.6	549.2	565	588.4	619.4	567.7	687.9	740.3			

TCM has started construction of new water infrastructures at the entrance of the mine. Sediment dam (SD09) has been enlarged from 9ML to 52 ML; new drop structures, a culvert and additional drains and sediment dams will be constructed in the coming months.



*Plan view of new water infrastructures*

TCM continues to work with dam consultants to improve the manner dams are designed, constructed, operated and maintained onsite. In addition, key staff received a training on Dam Safety and Management provided by a NSW Dam Safety Committee inspector/trainer.

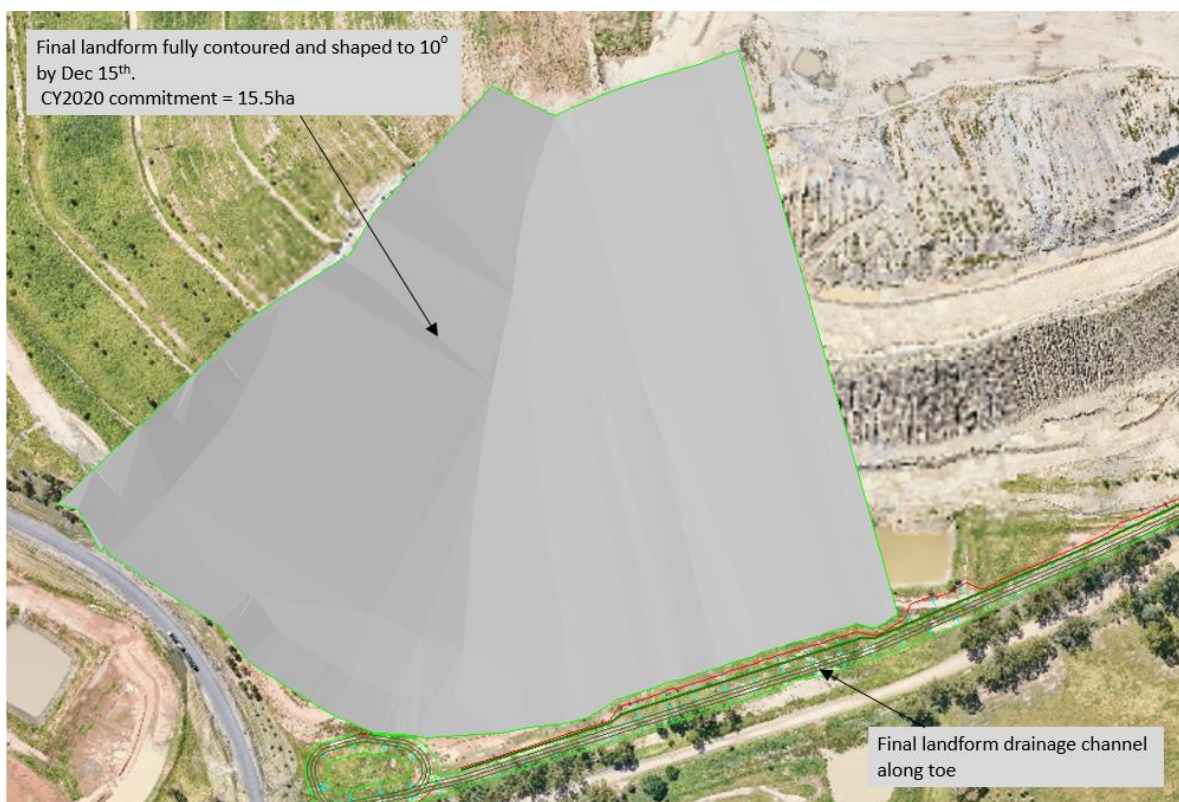


# Rehabilitation and Clearing

## Rehabilitation

TCM has planted approximately 11,000 trees on the Northern Rehabilitation areas and approximately 1,000 trees on the Southern Emplacement Rehabilitated areas. TCM is planning to spread seeds over approximately 25 Ha in the coming weeks including native groundcover species, shrubs and sub-shrub species as per the Rehabilitation Management plan.

In accordance with the Mining Operations Plan (MOP), reshaping activities have started at the Southern Emplacement area. Approximately 15.5Ha will be reshaped to final landform and contoured as shown in the figure below.



*Expected Final landform at the Southern Emplacement area by the end of 2020*

## Clearing

The next tree clearing campaign will be conducted between February and April 2021.

# Complaints

One complaint was received during the reporting period regarding blasting. This is the first complaint received since April 2018. The complaint was raised by a neighbour who lives approximately 8.5kms to the Southeast of the mine. TCM met with this neighbour and clarified all its concerns. Its contact details have been added to the pre-blast notification list.

# Environmental Management Plans

After approval of PA11\_047 MOD (8/06/2020), TCM submitted to the Department several revised Management Plans including the Traffic Management Plan (TMP), the Water Management Plan (WMP) and the Environmental Management Strategy (EMS). The updated EMS and TMP were recently approved by DPIE and are now available on the WHC website.

## BTM Water Strategy

The BTM mines continue to work on the submission of the updated BTM Groundwater Model. A final presentation of the Model Prediction was held via videoconference on 24<sup>th</sup> September. Final report will be submitted to DPIE in November.

# Annual and Compliance Reporting

## Annual Review and Annual Return Reports

Next Annual Review and Annual Return reports will be submitted to DPIE and EPA in March 2021 respectively.

## Annual Compliance EPBC statement

Next Annual Compliance EPBC statement will be submitted to DAWE in June 2021.

## Annual National Pollutant Inventory (NPI) and Greenhouse Gas Emission (NGERs) Reports 2020

The NPI report was submitted in September and the NGERs report will be submitted in October 2020.

# Audits- Compliance

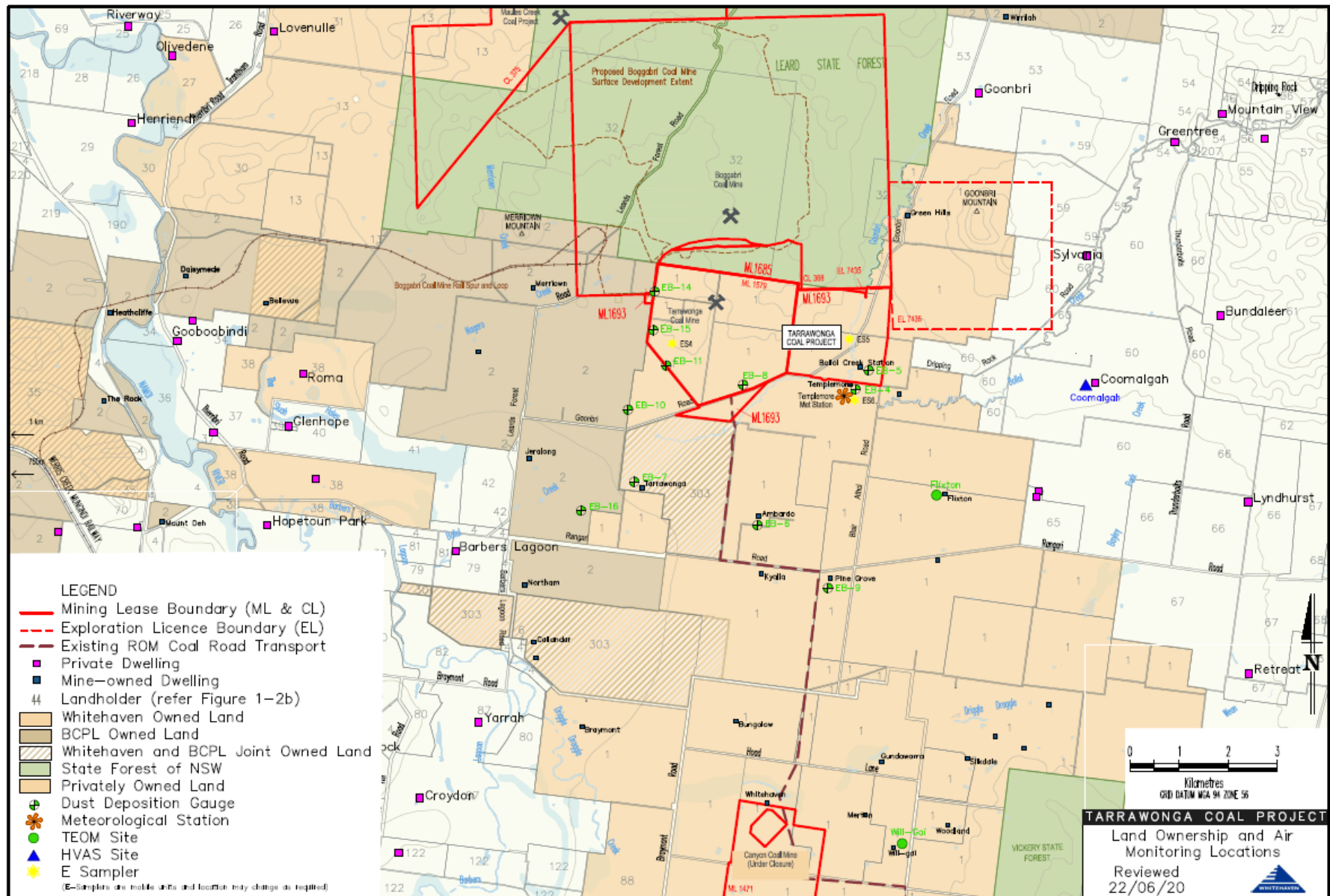
In July 2020, the company Environmental Resources Management (ERM) was commissioned and endorsed by the DPIE to conduct the 3-yearly Independent Environment Audit (IEA). The biodiversity component of this audit was conducted in August 2020 and the final audit report was submitted to DPIE for review. The Department considered the audit reports generally satisfied Project approval conditions. TCM will publish a copy of the report on the company website.

# Approval and Licencing

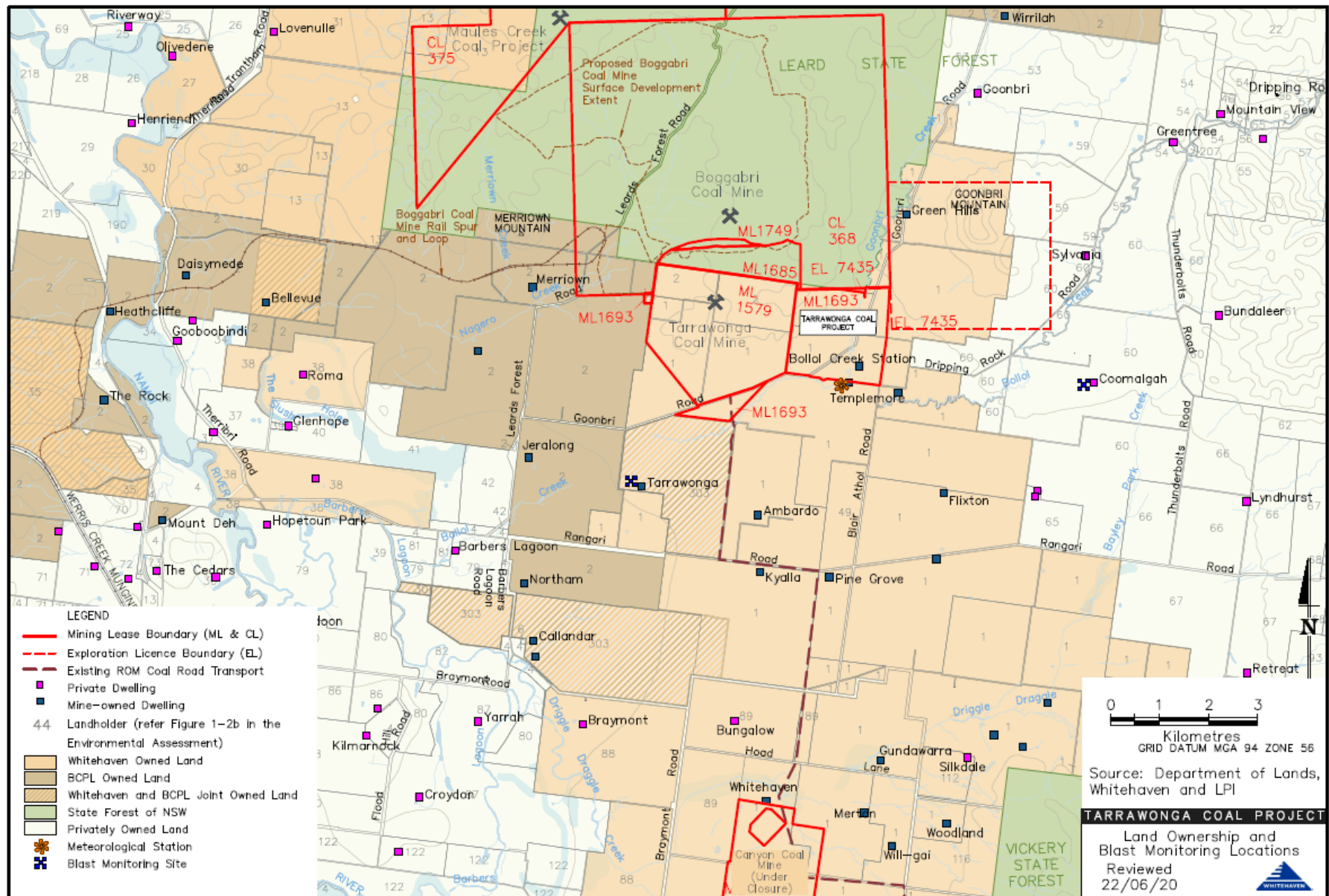
TCM is waiting for approval of Modification (MOD7) of Project Approval (PA11\_0047) regarding the Life of Mine. Response to request for additional information was provided to the Department early October. Determination is expected for November 2020.

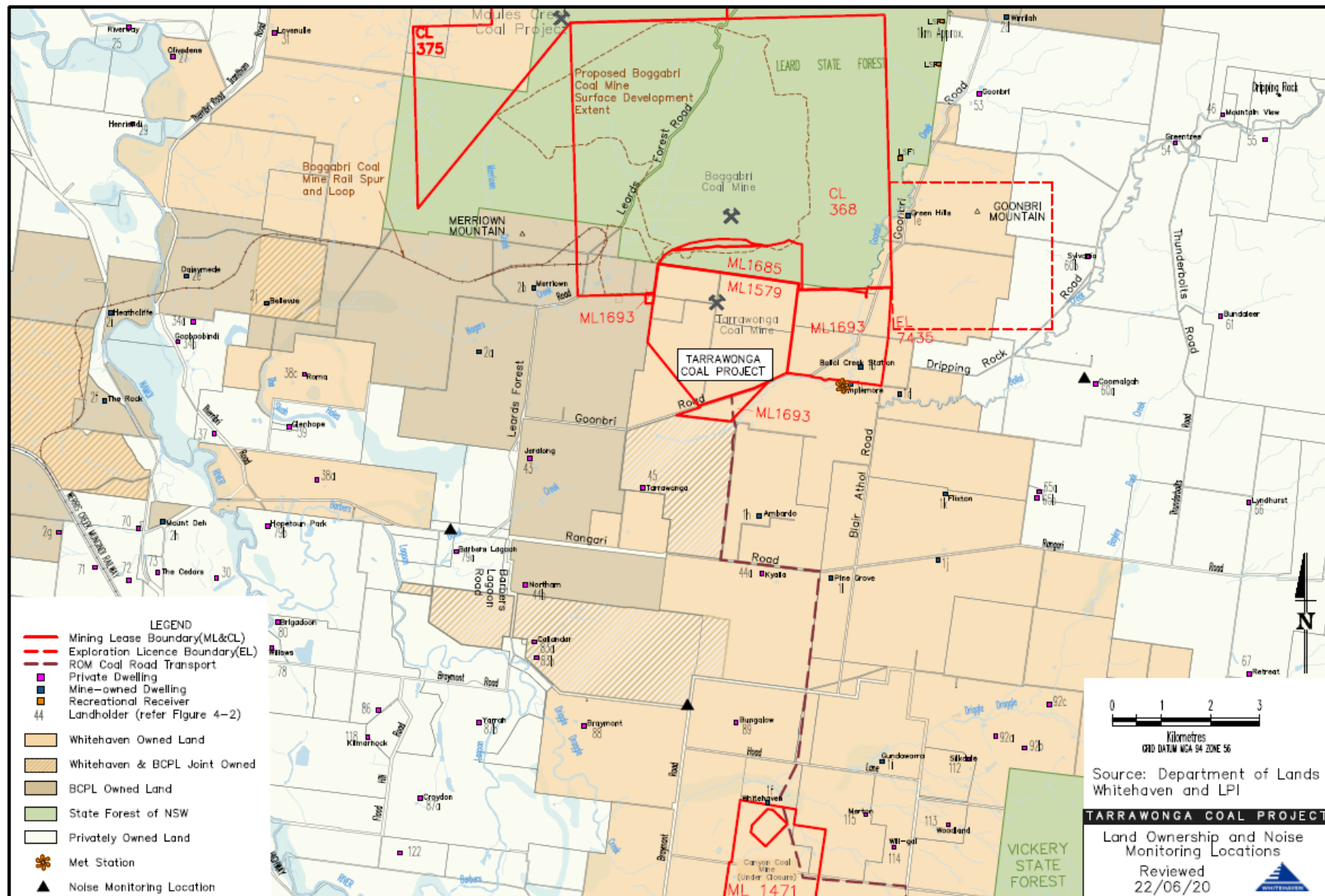
TCM submitted a MOP Amendment F that covers mining activities from November 2020 to November 2022. It was approved by the Resources Regulator on 23<sup>rd</sup> October 2020.

# Appendix A

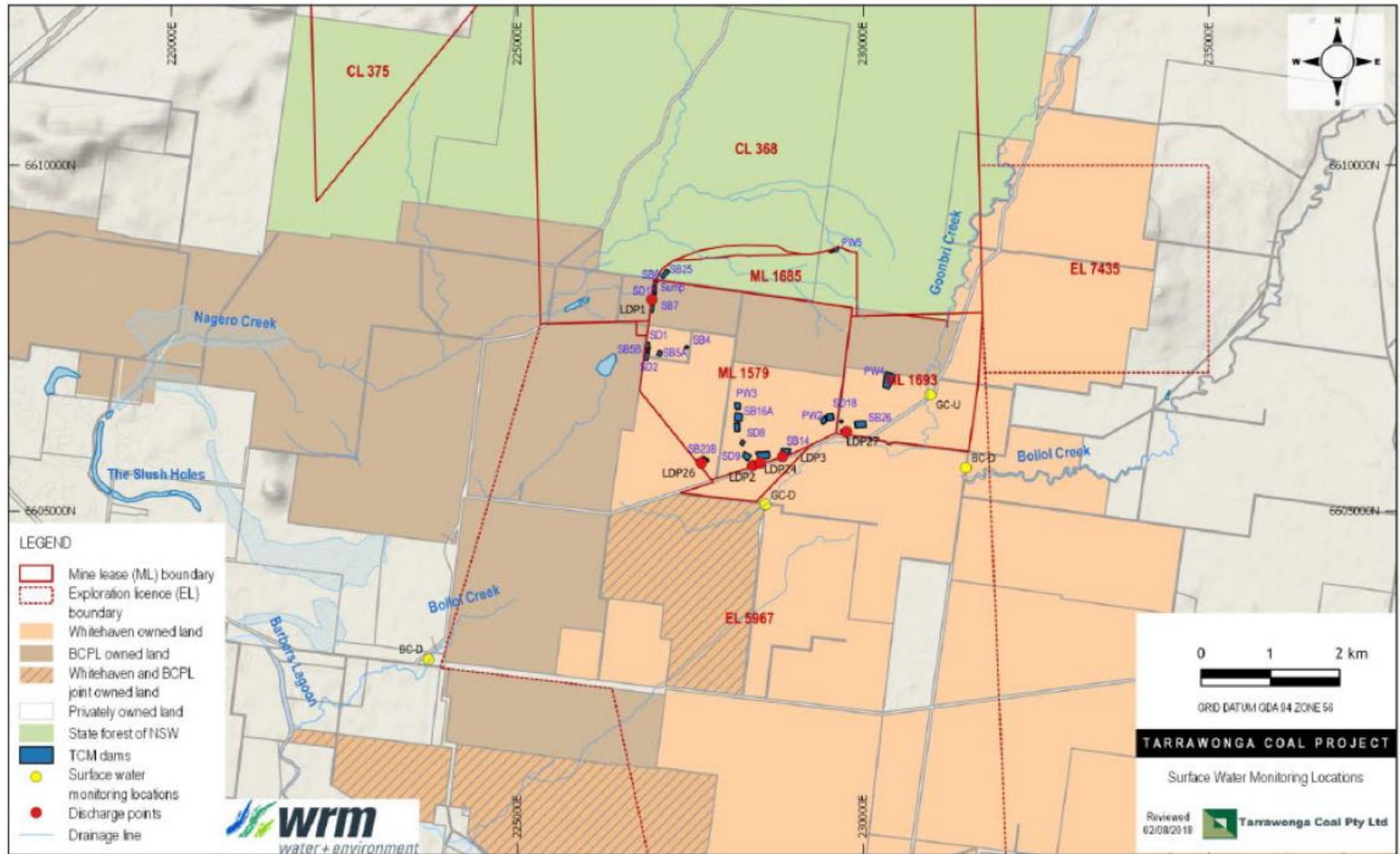


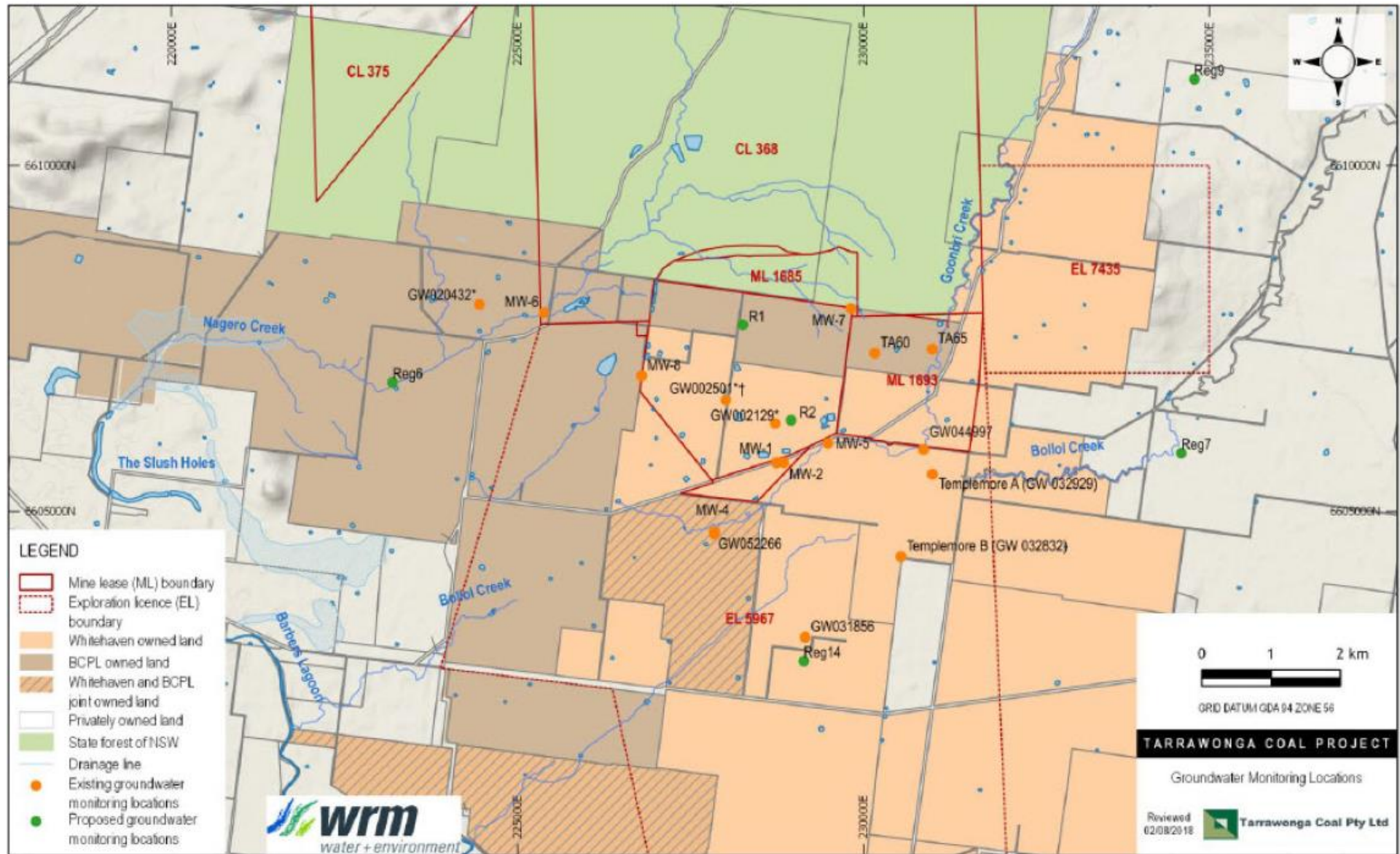






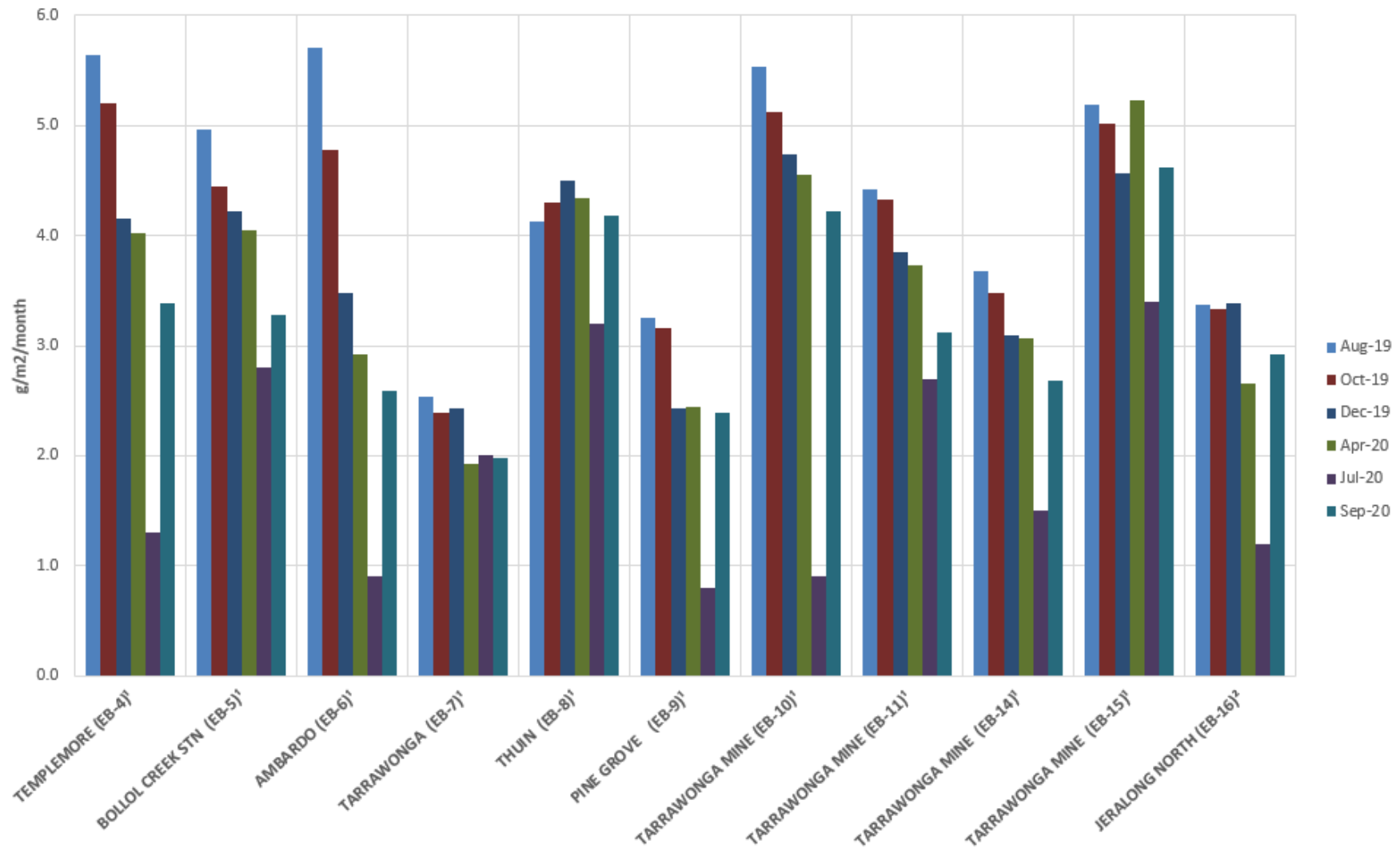




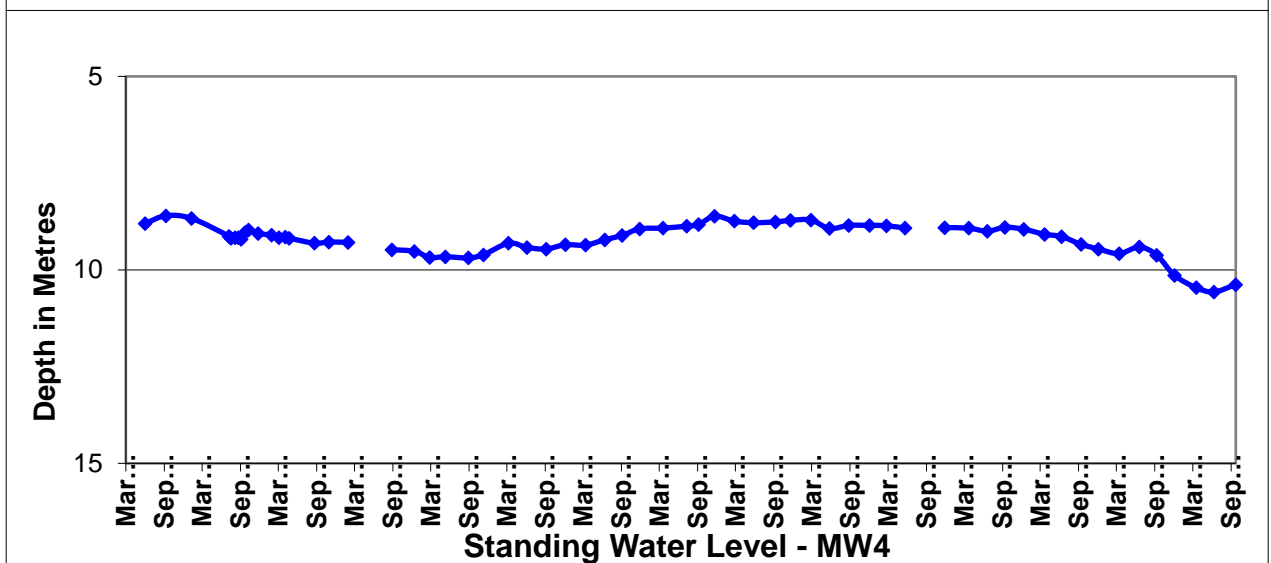
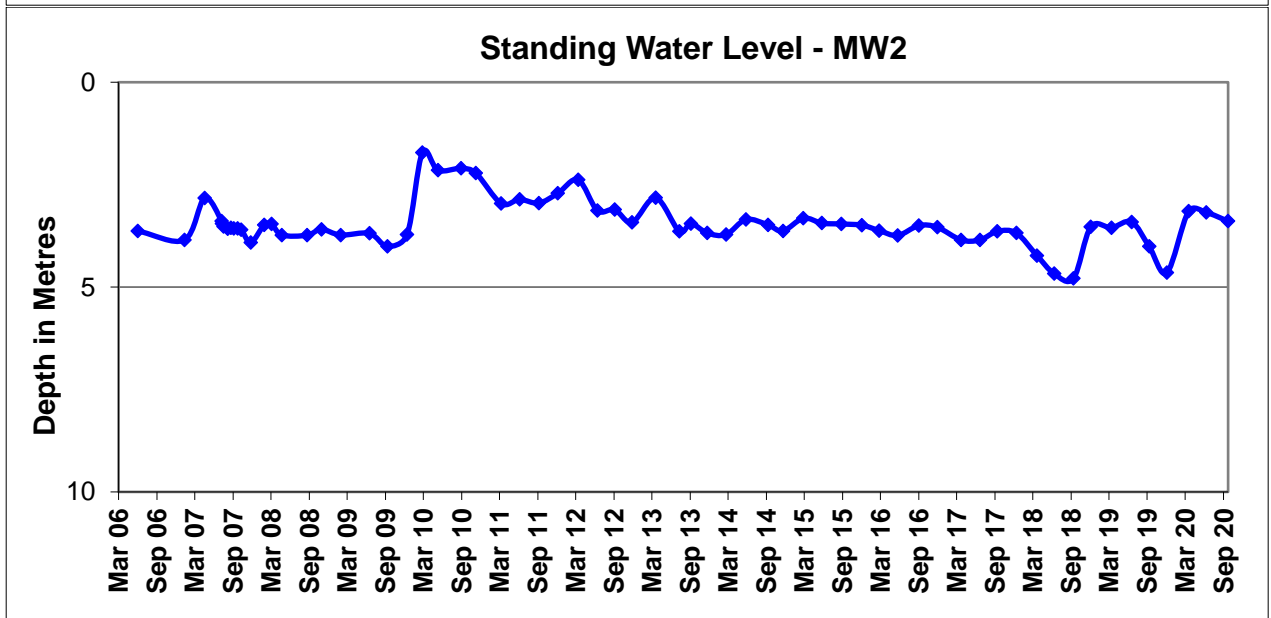
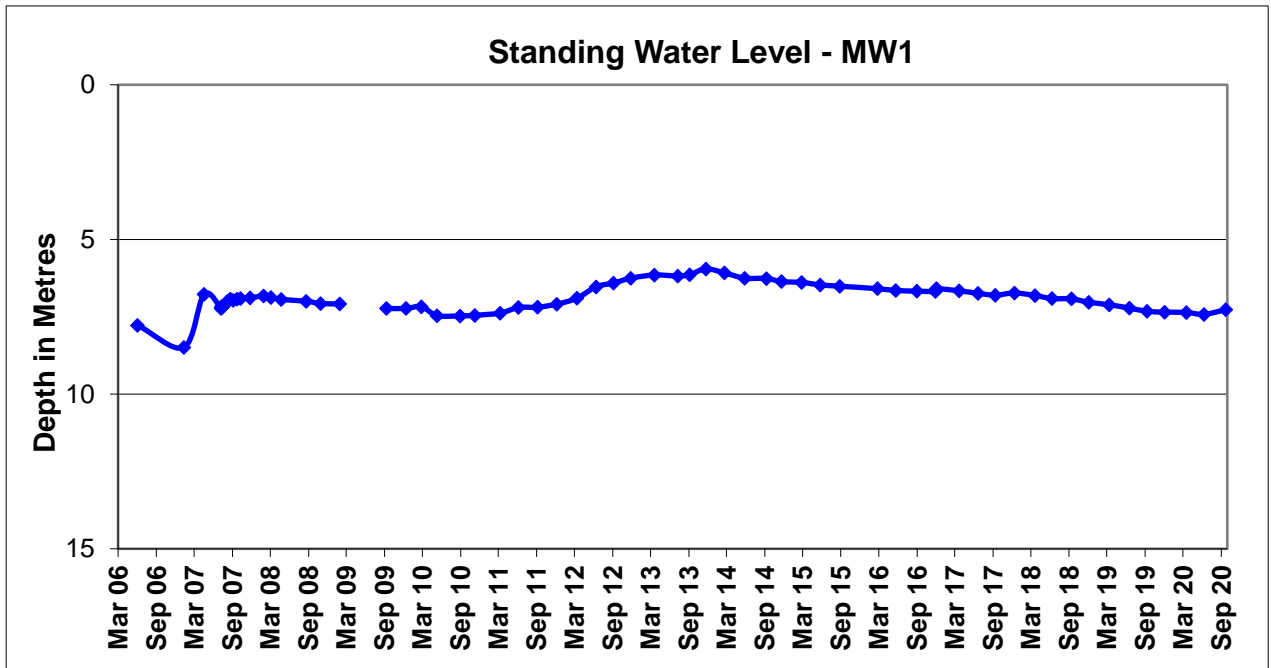


## Appendix B

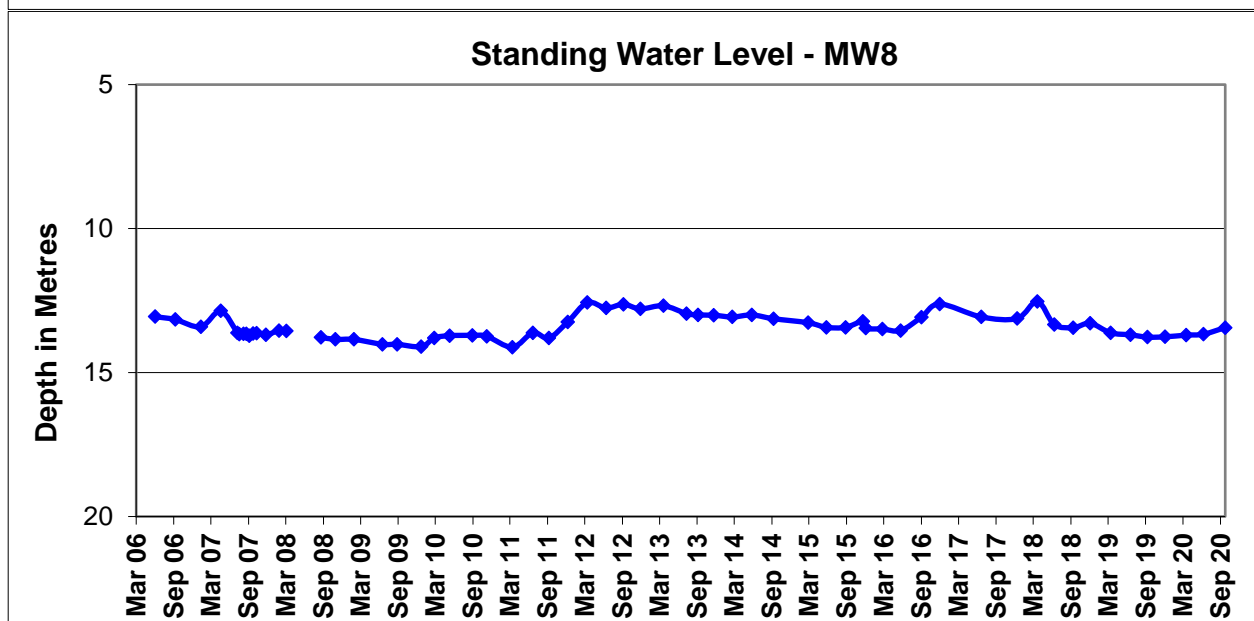
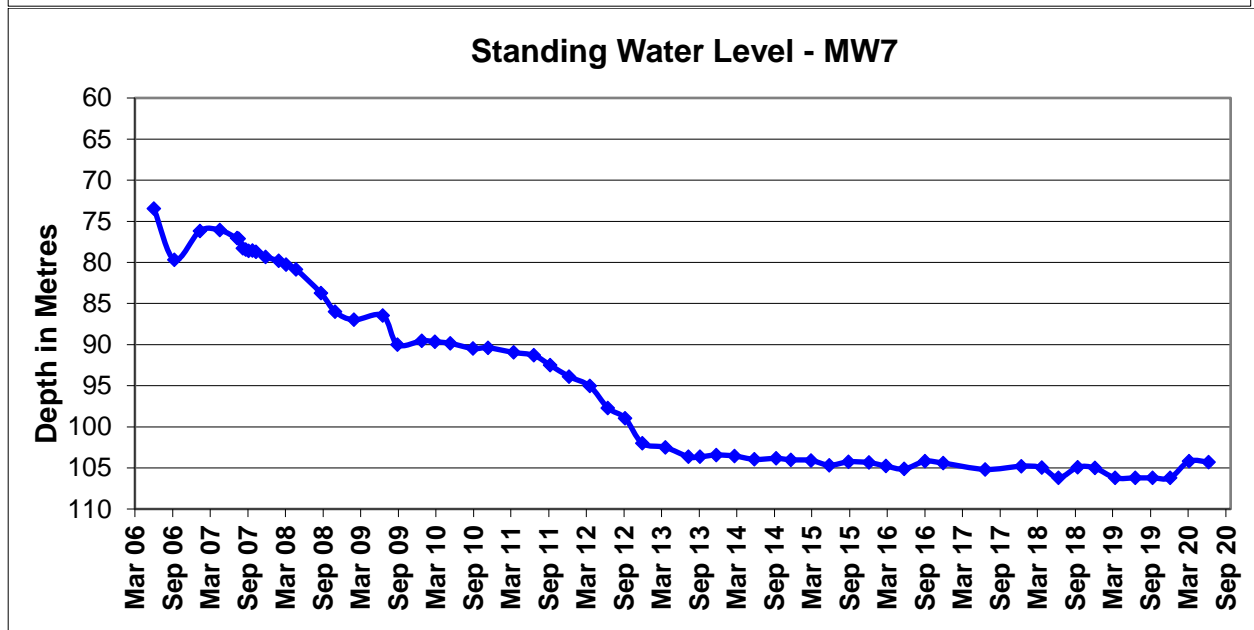
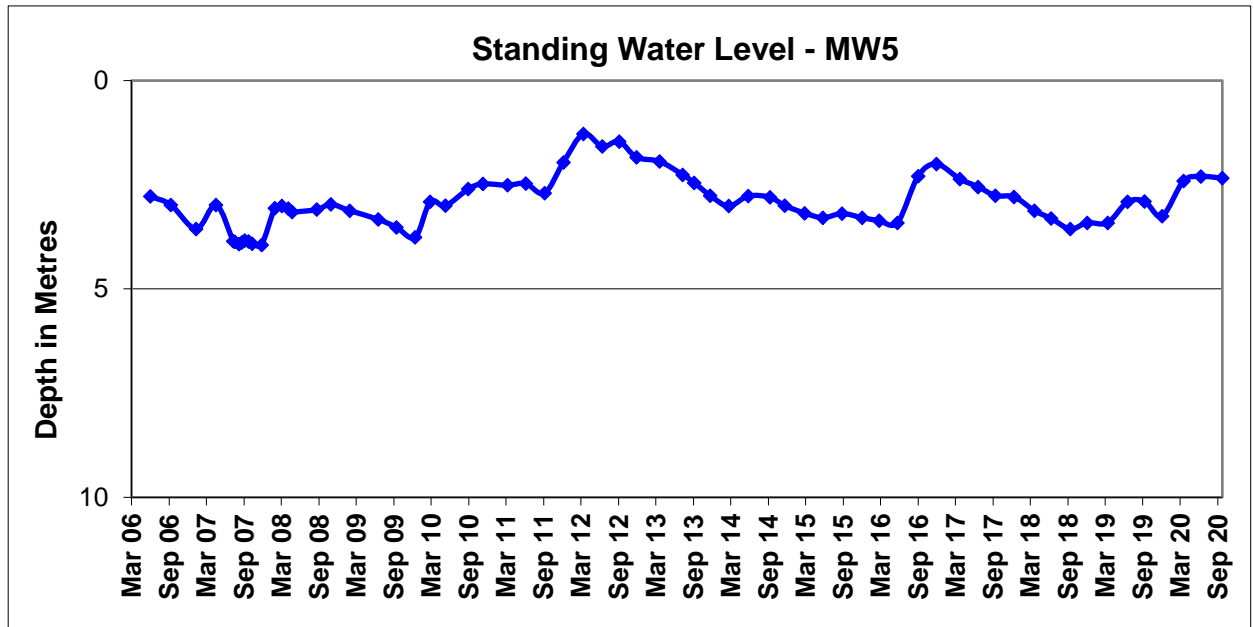
### Deposited Dust Gauge Results- Quarterly rolling average [g/m<sup>2</sup>/month]



## Appendix C







# Minutes of the 62<sup>nd</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee (TCCC)

Meeting Held	28 <sup>th</sup> of October 2020 between 10:00AM- 11:35 AM		
Venue	Tarrawonga Training Room		
<i>Agenda Item</i>	<i>Discussion and Description</i>	<i>Action and Accountability</i>	<i>Status/ Date</i>
1. Present and Apologies	<u>Present:</u> Mr David Ross (DR)- Independent Chairman, Mrs Colleen Fuller (CF), Community Representative, Mr Wade Hudson (WH)– GSC Representative Mr David Moses (DM), GSC Representative Mr Lloyd Finlay (LF), NSC Representative, Mrs Julie Heiler (JH), Community Representative, Mr Tian Oosthuizen (TOo), TCM, Mr Sebastien Moreno (SM)- TCM, Miss Madeleine Wright (MW), TCM, Mr Darren Swaine (DS)– WHC Group Miss Alexandra Carynny (AC)– Vickery Coal Mine		
	<u>Apologies:</u> Mrs Rebecca Ryan (RR)- Community Representative, Mr Robert Hooke (RH), GSC Representative Mrs Cath Collyer (CC), Community Representative,		

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2. Declaration of Pecuniary or Non-Pecuniary Interests	DR- declared that he is paid a fee for participation as Independent Chairman.  LF and JH declared they lease WHC properties		
3. Previous Minutes Actions	CCC members- regarding MOD7	SM- to provide an update on progress.	Completed. Discussed MOD7 in the quarterly report.
	Proceed with advertisement for new TCCC members.	SM, DR and MW to advertise for new CCC members.	Completed. Advertisement was made in the Boggabri Green flyer and Narrabri Classifieds. It was also added to the WHC Newsletter distributed in mail boxes across the Gunnedah area.
	SM- regarding 3- yearly Environmental Independent Audit report	SM- to present/ discuss outcome of the audit at Next CCC meeting	
	DR - Introduced WH replacing Andrew Johns	DR to discuss with WH regarding his admission to the CCC.	
4. Business Arising	DS – WHC’s Newsletter has been sent to mail boxes between Quirindi to Wee Waa.		

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	DR - Introduced WH replacing Andrew Johns - Introduced AC from the Vickery Coal Project.as an observer - Formally welcomed LF at TCM CCC as NSC member in replacement of Cameron Staines.		
	TOo advised: - No change with Covid-19 measures and risk assessments have been reviewed. - Implementation of measures onsite continues. - To date there have been no infected people onsite and attendance to work has been high.		
5. Mine Progress Report	TOo gave an update : - TRIFR – 0 - LTI Free days – 674 - Notifiable incidents period is 42 days free. - 41% of staff <12months mining experience. - 26% of staff <6months mining experience. JH commented on the loss of operators and asked if the percentage of new workers were locals or		

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	<p>from other districts.</p> <p>TOo – advised operators have gone to neighbouring mines in regards to the roster. He outlined TCM does not have FIFO workers but encourages local employment offering a 5/2 family friendly roster.</p> <ul style="list-style-type: none"> <li>- explained dam SD9 construction, south dump final land form construction and rehabilitation progressing well</li> <li>- Northern Rehabilitation is on track.</li> </ul>		
6. Environmental Monitoring report	<p>SM- read and explained the Quarterly Environmental Report results.</p> <ul style="list-style-type: none"> <li>- Reiterated that trees planted in FY21 are thriving due to favourable weather conditions.</li> <li>- One complaint regarding blasting and resolved. Neighbour was added to pre-blast notification list.</li> <li>- MOP Amendment F was approved.</li> <li>- MOD 7 is being assessed by DPIE and expected to be determined in November</li> <li>- ran through the various audits undertaken</li> </ul>	SM to present/ discuss outcomes of the audit at Next TCCC meeting.	

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	<p>at TCM, available on WHC website</p> <p>CF - advised that the Air Quality committee published reports able to assist TCM to understand sources of poor air quality levels in the region.</p> <p>JH- asked for information regarding the blasting complaint and whether that catalysed any changes within the blasting processes and times.</p> <p>SM advised blast is generally undertaken at 12pm however may change depending on weather conditions and operational constrains</p> <p>JH - asked about MW7 and why it is dry,</p> <p>SM- advised that proximity of the pit is the main reason for the drawdown and therefore this bore will be decommissioned soon.</p>		
7. General business	<p>DS - announced that the WHC complaints line is now operating and number is available on the WHC website (1800 WHAVEN (1800 942 836))</p> <ul style="list-style-type: none"> <li>- Explained the WHC Newsletter and the sustainability report for FY20.</li> </ul>		



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	<p>JH - in regards to blasting suggested putting production on the rear of blasting priorities to avoid complaints.</p> <p>TOo - advised that blasting activities are scheduled to minimize the risk of complaints. Site takes very seriously the risk of environmental harm (i.e. fume) and operates in accordance with the approval conditions including overpressure and ground vibration limits.</p> <p>JH - advised there is a no burning authorised and no permits are being issued.</p> <ul style="list-style-type: none"> <li>- thanked TCM for organising the RFS site visit.</li> <li>- has received comments from current TCM employees and members of their families. The perception of TCM as a workplace has changed: “Open communication and respect has been the basis of Tarrawonga’s Exceptional working environment”. Maintaining happiness within the mine to</li> </ul>		
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	<p>maintain the community and families within the community.</p> <ul style="list-style-type: none"> <li>- announced resignation from the TCCC as soon as a replacement is found.</li> </ul> <p>CF- received similar comment from a former employee she knows personally.</p> <ul style="list-style-type: none"> <li>- thanked SM for Environmental reports being received prior to CCC meetings.</li> <li>- advised that the mining book for Gunnedah is under way.</li> </ul> <p>TOo – In the current challenging climate, businesses (including WHC) need to adapt and make changes to maintain long term financial stability. It is understood some employees may find difficult to adapt to new management styles or organisational changes. However, to facilitate the transition, TCM management team has made significant efforts and has organised regular informative sessions with all the levels of staff.</p>		
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<b>Agenda Item</b>	<b>Discussion and Description</b>	<b>Action and Accountability</b>	<b>Status/ Date</b>
8.Complaints	SM - One complaint was received since previous meeting regarding blasting activities as detailed in the Quarterly report.		
9. Next Meeting and Other Comments	DR- next TCCC meetings will be held on 17 <sup>th</sup> February 2021.		