

Minutes of the 28th Meeting of the Tarrawonga Coal Mine Community Consultative Committee

Meeting Held: 13th February 2013, 10am

Venue: Tarrawonga Coal Mine, Training Room

1.0 Present and Apologies

Present: Mr Tim Muldoon (TM), Community Liaison Officer
Mr Matthew Sparkes (MS), Operations Manager
Mr Bart Crosby (BC), Community Rep
Mrs Julie Heiler (JH), Community Rep
Mrs Jill Johnson (JJ), Environmental Officer
Mr Mitch Palmer (MP), Environmental Officer
Mr Bob McGregor (BM), Community Rep
Clr Hans Allgayer (HA), Gunnedah Shire Rep
Clr Catherine Collyer (CC), Narrabri Shire Rep

Apologies: Mr Peter Laird, Community Rep
Mr Danny Young (DY), Environmental Manager
Mr Brian Cullen (BrC), General Manager

2.0 Declaration of Pecuniary or Non-Pecuniary Interests

JH leases "Velyama" from Aston Resources (now Whitehaven) and is in discussions with Whitehaven regarding water issues at her property.

BM property "Tarrawonga" is within the acquisition zone for Tarrawonga operations.

BM retains a commercial lease with Whitehaven for land on which part of the Tarrawonga Haul route is located.

BC is in property negotiations with Whitehaven.

2.1 Introduction of Committee

JJ advised that HA would be filling in as temporary chair as a permanent independent chair had not yet been appointed.

JJ introduced MP to the Committee, advising that he is the new full time Environmental Officer at Tarrawonga.

DY to continue discussions with Boggabri Coal and Maules Creek regarding arrangement of single independent chair for all three committees.

3.0 Previous Minutes

Minutes of the previous meeting were adopted as a true record on the motion of Julie Heiler and Bob McGregor.

4.0 Business Arising

- 4.1 JJ advised that discussions with Maules Creek and Boggabri Coal were continuing in relation to an independent chair for all three mines. It appeared that Boggabri Coal now might not want a single person to chair all three meetings so Whitehaven might continue with Maules Creek and Tarrawonga to expedite the process and allow Boggabri Coal to participate in the future if they wish.

BM said that he has been the chair of the Boggabri Coal CCC and it was put to one of their meetings as to whether the committee was happy to have him continue as chair. The committee agreed for BM to continue as they were concerned that they wouldn't be able to choose the independent chair. JJ asked BM if Boggabri Coal was now required to follow the Department's guidelines for CCCs given their new approval but he wasn't sure.

CC asked whether the Tarrawonga CCC required representation from the Maules Creek Community Council (as required in the Maules Creek consent). Whitehaven representatives at the meeting weren't sure and committed to advising of the requirement at the next meeting. CC said the Alistair Todd would be the likely representative.

JJ to provide Project Approval requirements in relation to the CCC at the next meeting.

- 4.2 JJ advised that the previous minutes had been updated to reflect that Boggabri Coal were seeking quotes for Manilla Road upgrade rather than undertaking work.

No further action required.

- 4.3 JJ advised that the Tarrawonga Life of Mine Extension had received State approval in late January. The project is still awaiting Federal approval, with a decision expected on the 14th March 2013.

Whitehaven to provide an update on approvals at the next meeting.

- 4.4 CC said she had spoken to Lew Oldfield (Director of Engineering, Narrabri Shire Council) regarding Manilla Road upgrade and asked him to liaise with the mines to progress the works. The Mayor spoke with Lance Muir (Whitehaven) two weeks ago and Lance was to contact Lew. CC said that Lew had not yet heard from Lance however TM said that Lance had been in hospital. CC asked who the best contact is for roads and TM said it is Lance Muir.

BC said at this stage he would be happy with a grader on Manilla Road. JH said if the Federal Government signs off on the project on the 14th March then the VPAs will be released, which means there is only 4 weeks until it progresses.

Manilla Road upgrade progress report.

- 4.5 JJ said that DY had indicated site rules for blasting had been implemented. MS said he wasn't aware of formal documentation but OCEs and MP review conditions before blasts.

DY to provide advice as to formal site rules at next meeting.

- 4.6 CC said a Mining Related Council meeting was held in Wollongong last week but discussions were more related to strategies and policies rather than return of

royalties. There was a presentation from MAC group. JH asked how many councils are members. CC said 22.

CC/HA to provide update on Mining Related Councils push for return of royalties at the next meeting.

- 4.7 HA said the Engineering Manager from Gunnedah Shire Council (GSC) had travelled the full length of the GSC section of Manilla Road and saw no issue with speed signs (the entire length of the GSC section is 100km/hour). CC to check the NSC end and also organise for a sign to be installed at the iron bridge to permit increase back up to 100km/hour after the bridge.

TM asked if anyone had gone directly to Council with their concerns. BC said mining related traffic use the road so it is a Tarrawonga issue. TM said that Whitehaven has no control over speed signs and that going directly to the Council could be more efficient in getting an outcome.

CC to provide update at next meeting regarding speed signs on Manilla Road and Iron Bridge.

- 4.8 JJ advised that a public notice was organised for Thursday's Namoi Valley Independent and Narrabri Courier explaining that Matt Sparkes was the new Operations Manager at Tarrawonga and thanking Jason Conomos for his efforts at Tarrawonga.

No further action required.

- 4.9 JJ advised that the truck wash at the CHPP is operational. BC said they need to look at the setup because there are lumps of coal fines coming off the wheels. He said one piece hit his windscreen and made a dint but didn't crack it. He said just about every single bump something comes off a truck. It's not coal but rather soft and when it hits the road it breaks up. JJ said that Toll had advised Whitehaven and the CCC on a number of occasions in the past that part of the issue is related to the anti-spray mudflaps that B-doubles are required to have. Whilst they reduce road spray, they allow material to build up at low speed which then falls off when the truck speeds up.

No further action required.

5.0 General Business

5.1 Mine Progress Report

MS provided the mine progress report as follows:

- 4.956 million BCM overburden removed
- 490,000 tonnes of coal mined
- 73 permanent operators on site
- 25 casual operators on site
- 13 staff/management on site
- 20 workshop employees

ROM coal year to date is close to budget. On target for 2 million tonnes ROM coal for the financial year.

HA asked if there was any plans to increase production. MS said the new consent allows for 3 Mtpa but Tarrawonga is restricted by haulage. Production will stay the same until Boggabri Coal infrastructure is in place.

5.2 Environmental Monitoring Report

JJ presented the environmental monitoring results which are attached in the Environmental Monitoring Report.

JJ said that the EPA had indicated that they may look to remove noise monitoring requirements at “Tarrawonga” from the EPL given it is in the acquisition zone and noise exceedances were modelled. BM asked if modelled exceedances means it’s a free for all for noise and dust. JJ said this is not what she had said, but rather that exceedances in noise were modelled at the time of the modification application and the noise levels recorded appeared to be matching what had been modelled.

BM said he is going to contact the Department because he wants attended noise monitoring to continue at “Tarrawonga” because he wants to know that noise levels are staying below what was predicted. JJ explained that there are two different instruments requiring monitoring – the Environment Protection Licence (administered by the EPA) and Noise Management Plan (NMP) (as required by the Department of Planning and Infrastructure). The NMP still requires noise monitoring at “Tarrawonga”. The EPA has been reviewing EPLs and removing some monitoring requirements on mine owned land and had commented that because “Tarrawonga” is in the acquisition zone the standard noise limits don’t apply and therefore they may look at removing the monitoring requirement.

MS asked what the predicted noise levels were in the modification EA. JJ to provide at next meeting.

BM asked about real time noise monitoring. JJ said it was currently located at Blair Athol. BM asked why it was located on mine owned land and JJ said because even though it is mine owned it gives an indication of the noise in the area. BM asked why you would put it where no-one is living. JJ reiterated that it provides an indication for the surrounding area and TM said that someone is living at the property. BM said the person living at the property is working at the mine and if they’re paid \$120,000 a year they’re not going to complain about noise.

JJ asked if BM would like the real time monitor positioned at his property but explained that it is a management tool for the mine rather than a compliance tool. The noise recorded is from all sources, not just mining, and therefore needs to be validated by listening to the recordings. She also said that to assist with validation of the noise model it is best if the unit remains in the one place for at least three months. BM said he would advise Whitehaven if he would like the monitor relocated to “Tarrawonga”. He said the Boggabri Coal real time monitor had been at his property previously and he has a report from when it was there. JJ reminded BM that the real time monitor is a management tool

and is therefore a standalone report for a period of time is not what the monitor is for.

BC asked about sediment levels in dams. MS said it varies from dam to dam. The mine started a de-silting process in the dams on the Boggabri Coal/Tarrawonga boundary a couple of weeks ago but subsequent rain stopped work. Some dams have 1/2 – 1 m of silt so they need to be cleaned out to regain capacity.

JH asked if level indicators had been installed in dams. MS said they had been.

JH asked about the pipeline. MS said there is a link from Boggabri Coal to Tarrawonga. Whitehaven has the water licence to extract water (300ML per year) and Boggabri Coal has the pipeline infrastructure so all we needed to do was extend the pipeline from Boggabri Coal to Tarrawonga. CC asked if the mine expects to use all the water. MS said the mine probably will in the long run. Nominally the mine is able to access ½ megalitre/day and we use about 2-3 megalitres/day. MS and JJ said it is dependent on Boggabri Coal's requirements and the weather. CC asked about storage capacities. MS said capacity for all water (clean, pit, dirty) is 300-350ML. There was 220ML stored at the start of the month with 90ML capacity remaining. Capacity and water held does not include water in the pit. Details of water storage capacity to be provided at next meeting.

JH said considering how dry it has been the low dust results indicate that the mine has been doing a good job with dust control. MS said the mine has been using a dust suppression additive on some roads. JH asked if it has a build up effect. MS said it is made out of timber (resin) and is a natural product. He said it is quite expensive but it also reduces the amount of water used. For example, instead of watering a road 10-15 times a day, it might only need to be watered 4 times a day.

BC said he'd like the mine to show the management plan for blasting and site conditions. He asked what height wind speed is measured at. Jill said standard weather stations have sensors at 2m and 10m but she wasn't sure which sensor was used at Tarrawonga. BC commented that dust from blasts goes much higher than that. JJ said at this stage we don't have wind sensors any higher than 10m. She did note that Boggabri Coal were proposing to install a weather station on top of their 60m high communications tower but she wasn't sure how far that had progressed and what access Whitehaven would have to the information.

CC said the Committee should lobby the state government to install an offsite camera to look at dust from a distance. TM said the point of an offsite camera is valid but how can you define where the dust is coming from. JH said from her back paddock you can't tell which mine is making dust. JJ to provide CC with contact details for Steve O'Donoghue. CC to contact Steve to raise suggestion of offsite camera.

HA encouraged complainants to contact the mine directly rather than anonymously through the EPA as it is easier for the mine to address the issues directly.

- **JJ to confirm modelled noise exceedances for “Tarrawonga”.**
- **BM to advise Whitehaven if he would like the real time noise monitor at his property.**
- **Whitehaven to provide details on dam capacities at next meeting.**
- **Details of water storage capacity to be provided at next meeting.**
- **JJ to provide CC with contact details for Steve O’Donoghue.**
- **CC to contact Steve O’Donoghue re potential for offsite camera.**

6.0 New Business

- 6.1 HA raised concern about the amount of rubbish on the road. MS said he will remind employees at a monthly toolbox talk on Friday about not throwing rubbish out the window. BM said from the mine end of the haul road you see stubbies and cans. JJ said the Whitehaven’s Environmental Field Officer also does periodic rubbish pickups.
- 6.2 JH commended the white Muscat domestic coal truck for pulling up on the road well before the cattle that JH was moving. MS said he would find out who it was and commend the driver.
- 6.3 JH asked if the Water Management Plan (WMP) had been finalised. JJ said it had been issued to the Department and will be provided at the next CCC meeting if approved. JJ noted that a new WMP would need to be developed for the extension project but URS would be the preferred consultancy as they have all of the information from the plan they’ve just completed.

Water Management Plan to be provided at next CCC meeting if approved.

- 6.4 JH questioned the closure of the private sections of the haul road to the public. JJ said that when PL notified her that he wouldn’t be attending the meeting he also asked for the issue to be raised. TM said because there is litigation involved with one section and potential litigation for the other section there isn’t much Whitehaven can say other than the road is only to be used by people accessing Tarrawonga. JH commented about people using other roads but JJ said that is out of Whitehaven’s control and the only thing Whitehaven can do is ensure that only Tarrawonga related vehicles utilise the private haul road.
- 6.5 JH referred to the derailment and noted that people are scared of the trucks because they don’t understand them (ie. that they can’t stop quickly). We need to be more proactive and educate the community. She suggested a joint awareness initiative between Council, the mines, RMS and truck companies and asked if Toll would be interested. JJ said Toll would need to be contacted directly and their health and safety policies would need to be considered when making a decision.
- 6.6 CC raised concern about Whitehaven’s absence at a community meeting held in Boggabri during the week when Whitehaven was trucking coal from Narrabri to the CHPP. She said it would have been nice to have a Whitehaven representative there and Whitehaven’s absence was noticed by the community. TM said Whitehaven wasn’t invited. JJ corrected TM and said that Whitehaven wasn’t invited to the meeting on the Wednesday night (which Boggabri Coal attended)

but was invited to the Friday meeting. However, Whitehaven was unable to attend due to the Tarrawonga PAC meeting being held on the same day.

CC said she was aware of the PAC meeting and that she was there but the community meeting was held later in the day. TM acknowledged that but said Whitehaven representatives were busy with PAC and other issues after the meeting finished. CC said Whitehaven could have sent any of its employees to the meeting and that it didn't have to be those who attended the PAC meeting. JJ disagreed and said that a certain level of management would be required to attend such a meeting given they would be making comments on behalf of the company when questioned by the community. JJ questioned CC on the name of the committee she had referred (to ensure it was correctly recorded in the minutes) and CC said it wasn't actually a committee, it was a meeting she had organised for the community.

7.0 Complaints

Complaints were discussed in the Environment Monitoring Report.

8.0 Next Meeting

The next meeting will be held at the Tarrawonga Coal Mine Training Room on Wednesday 8th May 2013 at 10:00am.

Meeting closed at 12:00pm.

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Hans Allgayer – Temporary Chairman

Tarrawonga Coal Mine Community Consultative Committee Meeting #28

Environmental Monitoring Report November 2012 – January 2013

Noise Monitoring

Noise monitoring was undertaken at the “Tarrawonga” property on the 11th, 12th, 13th and 14th December 2012, with results outlined below. The noise criterion for the mine is 35dB(A) Leq (15 min) for all operating times.

Table 1 TCM Noise Monitoring Results – 11 th , 12 th , 13 th , 14 th December 2012				
Date	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources as dB(A) Leq (15 min)
11 Dec 2012	8:07am	53	4.7 m/s, S	Birds & insects (53), TCM inaudible
12 Dec 2012	8:57 am	45	4.8 m/s SE	Birds & insects (45), wind (35), TCM (20)
12 Dec 2012	8:37 pm	38	3.9 m/s E	Insects (34), mine noise (38), TCM est. (37) = trucks noise (34), mine hum (33)
12 Dec 2012	10:05pm	37	3.2m/s E	Mine noise (34), TCM est. (33) , insects (32)
13 Dec 2012	7:57am	38	1.4m/s E	Birds & insects (38), mine noise (25)
13 Dec 2012	8:28 pm	35	1.3 m/s N	Insects (31), mine noise (33) TCM est. (32) = trucks noise (32), mine hum (22)
13 Dec 2012	11:09pm	32	0.6m/s NE	Insects (32), mine noise (22)
14 Dec 2012	7:35 pm	42	1.4 m/s E	Birds & insects (42), mine noise (30), TCM (30) = truck noise (28), mine hum (26)
14 Dec 2012	1:04 am	38	5.0 m/s NE	Insects (38), wind (31), TCM inaudible

Table 2 TCM Sleep Disturbance Monitoring Results – 12 th , 13 th , 14 th December 2012			
Location	Time	dB(A),Leq (1 min)	Wind Speed/Direction
Tarrawonga (12/9)	10:05 pm	40	3.2 m/s E
Tarrawonga (13/9)	11:09 pm	25	0.6 m/s NE
Tarrawonga (14/9)	1:04 am	N/A	5.0 m/s NE

The results indicate that noise emissions from TCM were higher than the operational noise criterion at the “Tarrawonga” monitoring location during the evening of December 12th. Atmospheric conditions at the time of the monitoring indicated a 3.9 m/s wind was blowing from an easterly direction. As such the elevated noise levels occurred under non-compliant atmospheric conditions. The majority of the noise was due to emissions from trucks on the haul road. The atmospheric conditions would have resulted in noise enhancing source to receiver winds at the monitoring location. It should be noted that the “Tarrawonga” property retains acquisition rights in the Project Approval for the Tarrawonga Mine as a consequence of modelled noise predictions exceeding 35dB(A). The result of 37dB(A) attributed to Tarrawonga operations on the evening of 12th December 2012 is consistent with the modelled predictions established in the noise model for the modification to Tarrawonga operations in 2010. As a consequence, the noise limit of 35dB(A) does not apply at the Tarrawonga receiver.

Noise from TCM did not exceed the sleep disturbance criterion during any of the night time monitoring periods.

The real time noise monitor has been relocated to the “Blair Athol School House”. The alarm system on the noise monitor has recently been activated and outcomes will be monitored closely to verify noise levels.

Blast Monitoring

Blasting Results

Since the first shot there have been 408 blasts (until the end of January 2013).

All blasts over the last three months have been compliant with the blast criteria.

Air Quality

Air Quality (Dust Deposition) Results

MONTH	TEMPLEMORE (EB-4)	BOLLOL CREEK STN (EB-5)	AMBARDO (EB-6)	TARRAWONGA (EB-7)	THUIN (EB-8)	PINE GROVE (EB-9)	TARRAWONGA MINE (EB-10)	TARRAWONGA MINE (EB-11)	PINE GROVE (EB-12)	BOLLOL CREEK (EB-13)	TARRAWONGA MINE (EB-14)	TARRAWONGA MINE (EB-15)	JERALONG NORTH (EB 16)
February 2012	1.8	0.2	1.0	0.7	9.9	0.5	2.0		1.8	2.0	2.4	4.0	0.9
March 2012	5.3	0.2	0.4	0.4	5.1	0.5	0.4	0.5	0.4	1.2	5.5	3.8	1.5
April 2012	2.9	1.6	1.2	1.5	1.8	1.6	11.4	1.4	2.9	1.4	2.5	3.0	2.0
May 2012	3.2		0.5	0.2	5.4	1.5	9.2	0.7	0.7	2.3	5.4	8.8	5.8
June 2012	3.4	0.7	0.3	0.4	2.4	0.3	2.1	0.9	0.4	2.9	1.9	4.5	5.1
July 2012	1.3	1.2	0.5	0.3	1.9	0.3	14.8	0.7	0.5	2.8	2.3	14.5	1.1
August 2012	3.3	0.3	0.9	0.8	2.8	3.4	10.3	1.1	1.0	3.1	1.3	4.8	0.9
September 2012	0.9	4.4	1.1	1.2	2.8	1.1	5.5	0.8	1.2	1.5	1.1	4.3	1.1
October 2012	1.3	1.2	1.0	0.1	2.9	0.7	4.5	2.5	3.5	3.8	1.1	2.7	1.8
November 2012	2.6	5.3	2.8	2.3	2.1	1.9	4.2	1.1	0.5	0.4	1.9	3.3	2.0
December 2012	1.8	2.1	1.1	0.9	2.8	1.0	29.9	1.4	0.9	4.6	1.1	3.9	1.8
January 2013	-	-	-	-	4.2	-	9.9	1.7	1.7	3.0	4.6	4.2	9.5
ANNUAL AVERAGE	2.5	1.7	1.0	0.8	3.7	1.2	8.7	1.2	1.3	2.4	2.6	5.2	2.8

All monitoring locations remain below the limit of 4g/m²/month with the exception of EB-10 and EB-15. As these monitors are both located on mine-owned land, compliance criteria do not apply.

Not all results from January 2013 monitoring are currently available however they will be included in the next report.

PM₁₀ Results

The annual average for PM₁₀ readings is currently at 17.73µg/m³ (until end of December 2012) and remains well below the annual average limit of 30µg/m³. PM₁₀ levels have remained compliant since the last CCC meeting.

The fixed real time air quality monitor (TEOM) is currently providing daily reports as well as real time air quality results. As at the end of January, the 24hr average PM₁₀ level was recorded at 20.5µg/m³, below the 24hr criterion of 50µg/m³. As with the real time noise monitor, an alarm system has been activated on the TEOM to alert when dust levels reach a pre-determined level based on wind direction from the mine site. This will be monitored closely to verify if dust levels from the site approach compliance limits.

Water Monitoring

Ground Water

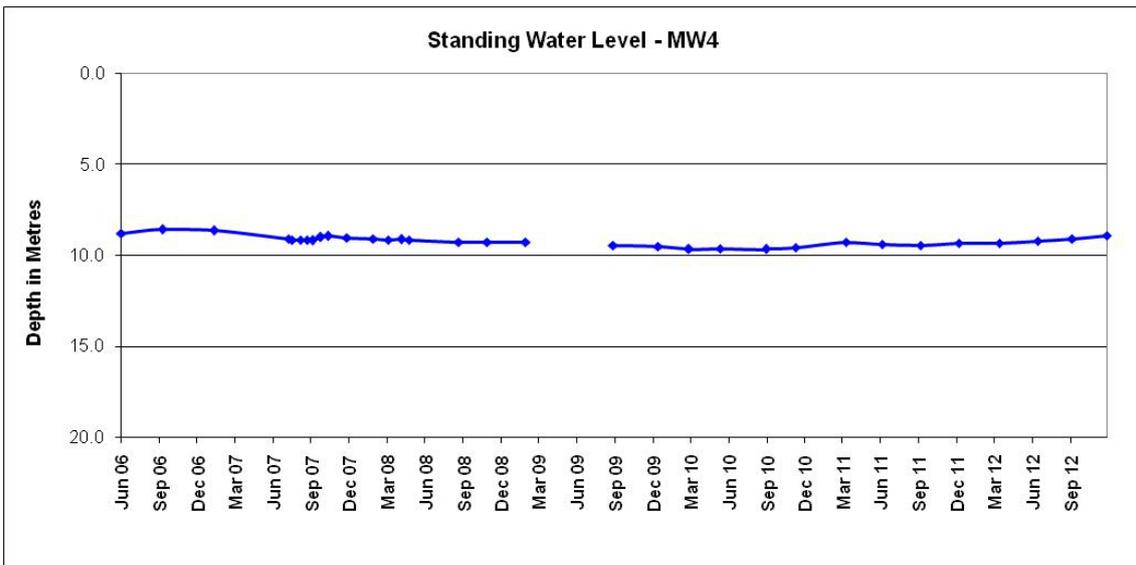
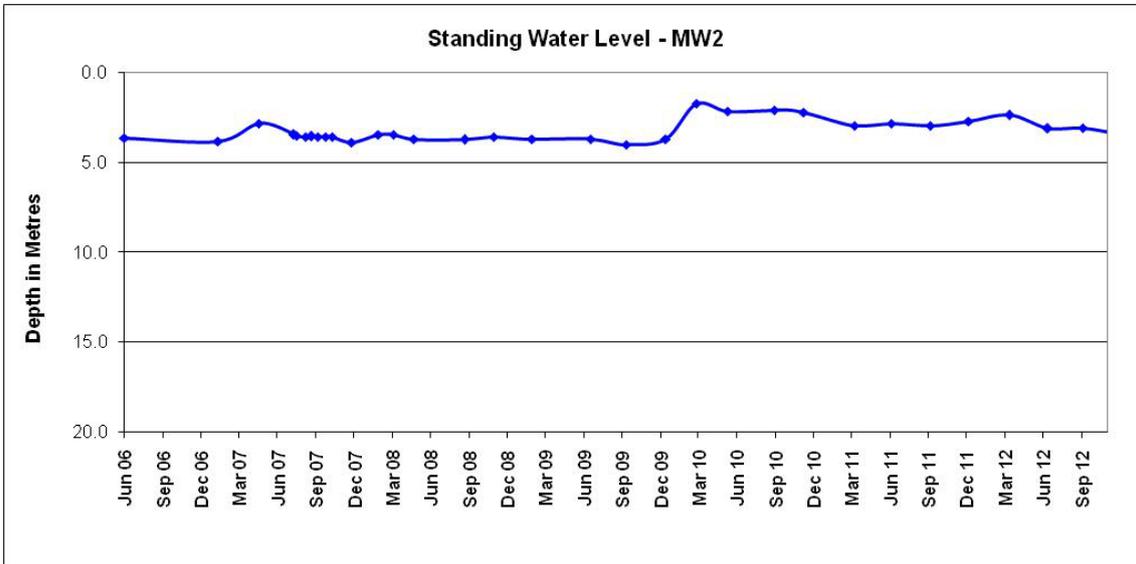
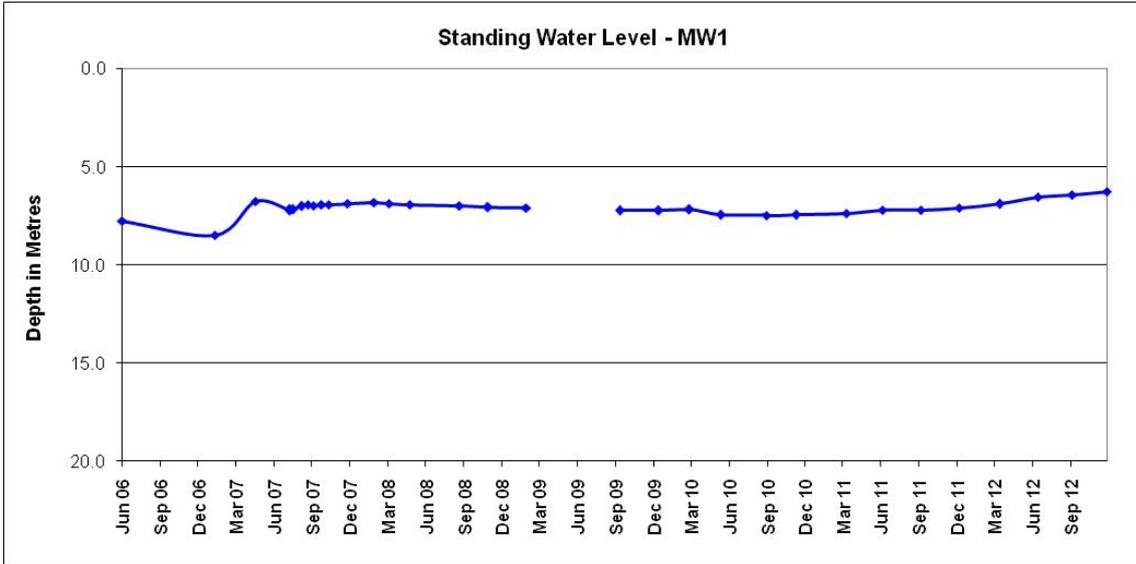
Groundwater monitoring data obtained to date, including the last round of SWL monitoring in November 2012 is provided in the table and graphs below.

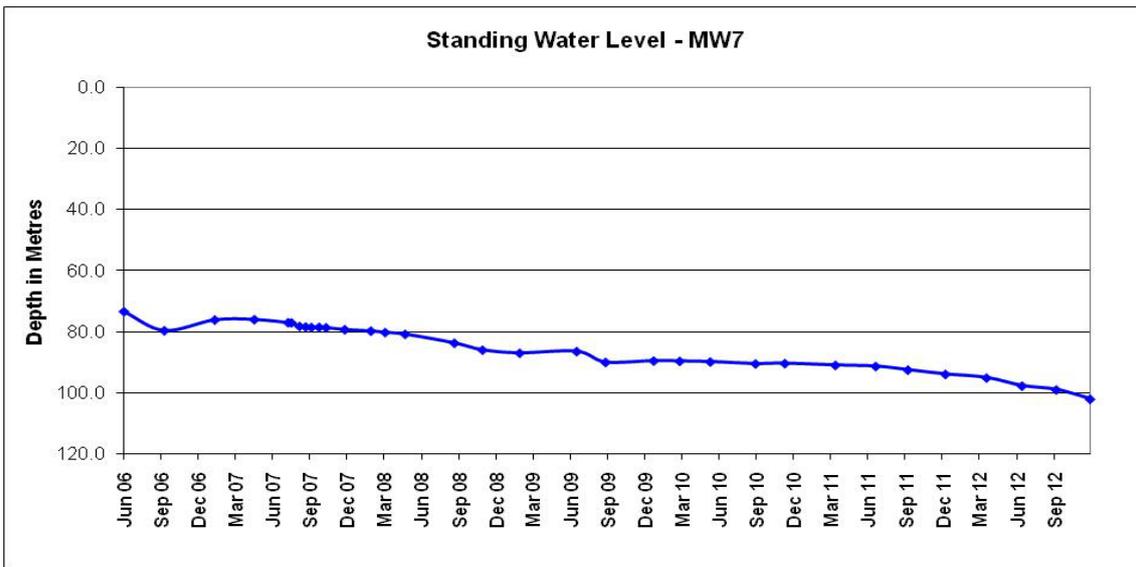
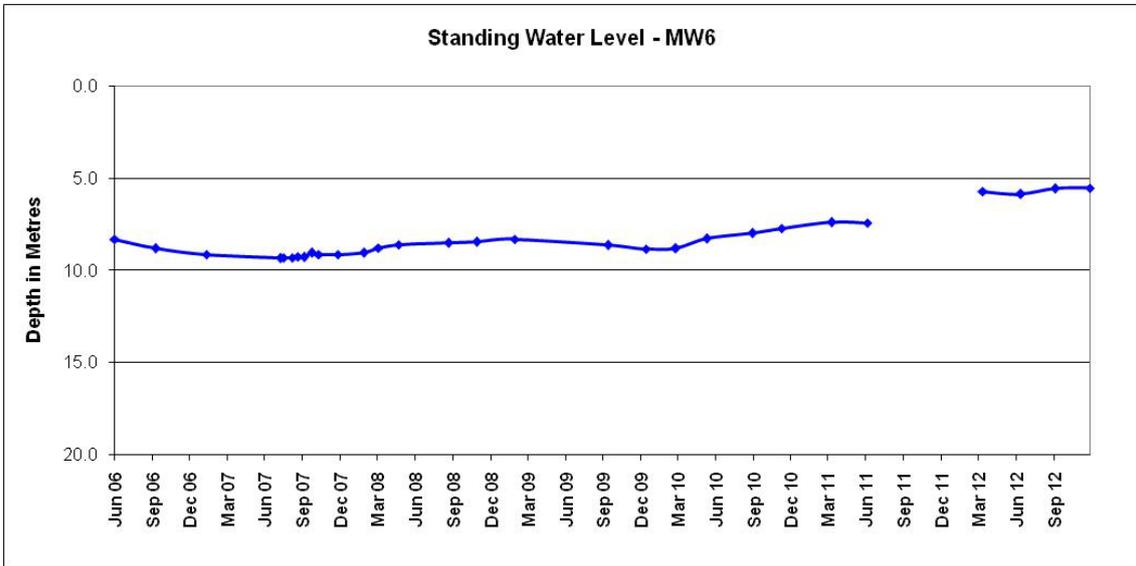
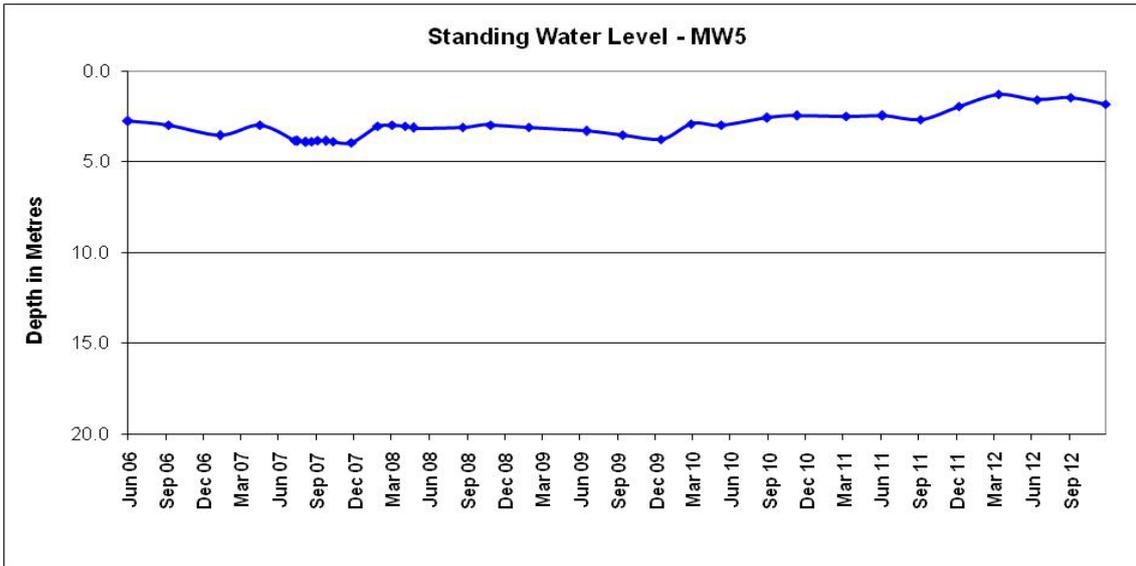
Site	Date	SWL (m)	pH	Elect. Conduct
MW1	January 07	9.22	7.1	2410
	April 07	7.49		
	July 07	7.91	7.3	2500
	August 07	7.66		
	September 07	7.66		
	October 07	7.64		
	November 07	7.62		
	January 08	7.55		
	March 08	7.60		
	April 08	7.67	7.3	3120
	August 08	7.73		
	September 08			
	October 08	7.82	7.8	3500
	November 08			
	December 08			
	January 09	7.73		
	June 09	7.87	7.2	5470
	September 09	7.9		
	December 09	7.9	7.83	4510
	February 10	7.84		
	May 10	8.13		
	August 10	8.14	7.47	3890
	November 10	8.12	7.06	3170
March 11	8.05	7.1	3280	
June 11	7.87	7.2	3110	
September 11	7.19	7.09	3200	
December 11	7.09	7.16	3150	
March 2012	6.9	7.44	3140	
June 2012	6.53	7.37	3730	
September 2012	6.41	7.8	3570	
November 12	6.25	7.54	3140	
MW2	January 07	4.62	6.8	511
	April 07	3.59		
	July 07	4.29	7.1	496
	August 07	4.32		
	September 07	4.34		
	October 07	4.37		
	November 07	4.68		
	January 08	4.25		
	March 08	4.23		
	April 08	4.50	7.3	440
August 08	4.51			
September 08				
October 08	4.37	6.9	620	

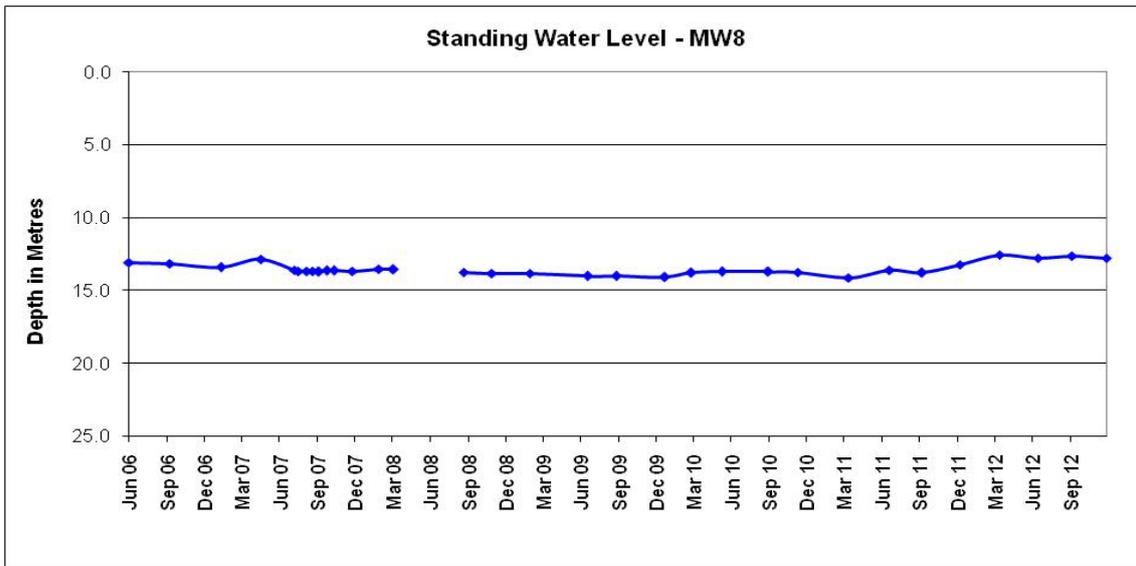
	November 08			
	December 08			
	January 09	4.51		
	June 09	4.53	7.7	660
	September 09	4.8		
	December 09	4.51	7.5	640
	February 10	2.51		
	May 10	2.94		
	August 10	2.89	7.4	590
	November 10	3.01	7.32	513
	March 11	3.75	7.31	566
	June 11	3.65	7.3	553
	September 11	2.95	6.9	585
	December 11	2.71	7.08	600
	March 12	2.38	7.06	912
	June 12	3.13	7.02	1320
	September 2012	3.11	7.47	1310
	November 2012	3.42	7.29	905
MW4	September 06	9.25		
	January 07	9.37	7.1	3430
	July 07	9.88	6.8	5400
	August 07	9.87		
	September 07	9.73		
	October 07	9.67		
	November 07	9.76		
	January 08	9.80		
	March 08	9.87		
	April 08	9.88	7.1	5160
	August 08	10.01		
	September 08			
	October 08	9.98	7	5800
	November 08			
	December 08			
	January 09	9.96		
	June 09	10.05	6.8	5400
	August 09	10.10		
	December 09	10.14	7.35	5040
	February 10	10.30		
	May 10	10.28		
	August 10	10.31	7.33	4740
	November 10	10.23	6.9	3810
	March 11	9.93	7.18	3060
	June 11	10.04	7.25	3080
	September 11	9.46	7.12	3196
	December 11	9.35	7.10	3180
	March 12	9.36	7.6	2580
	June 12	9.22	7.52	3850
	September 12	9.11	7.98	3770
	November 12	8.94	7.74	3440
MW5	September 06	3.64		
	January 07	4.18		
	April 07	3.60		
	July 07	4.49	7.5	1930
	August 07	4.50		
	September 07	4.48		
	October 07	4.53		
	November 07	4.56		
	January 08	3.68		
	March 08	3.63		
	April 08	3.77	7.9	3260

	August 08	3.72		
	September 08			
	October 08	3.59	7.3	3400
	November 08			
	December 08			
	January 09	3.73		
	June 09	4.18	7.7	2390
	September 09	4.32		
	December 09	4.56	7.44	7460
	February 10	3.71		
	May 10	3.8		
	August 10	3.4	7.85	1740
	November 10	3.28	7.35	2620
	March 11	3.31	7.39	1917
	June 11	3.27	7.45	1032
	September 11	2.7	7.39	1910
	December 11	1.96	7.36	2275
	March 12	1.28	7.52	1110
	June 12	1.58	7.81	977
	September 12	1.46	7.92	2120
	November 12	1.84	7.65	2650
MW6	September 06	9.54		
	January 07	9.81	6.9	2030
	July 07	10.01	7.5	2060
	August 07	9.95		
	September 07	9.73		
	October 07	9.82		
	November 07	9.83		
	January 08	9.72		
	March 08	9.48		
	April 08	9.28	7.1	2120
	August 08	9.21		
	September 08			
	October 08	9.15	7.1	2100
	November 08			
	December 08			
	January 09	9.10		
	June 09	No sample		
	September 09	9.43		
	December 09	9.64	7.3	2100
	February 10	9.62		
	May 10	9.08		
	August 10	8.78	7.2	1927
	November 10	8.5	7.03	1835
	March 11	8.19	7.08	1783
	June 11	8.22	7.15	1670
	September 11	Piezo damaged	-	-
	December 11	Piezo damaged	-	-
	March 12	5.74	7.49	1840
	June 12	5.87	7.45	2040
	September 12	5.58	8.08	1990
	November 12	5.55	7.6	1817
MW7	September 06	80.52		
	January 07	77.0	7.3	1960
	April 07	76.9		
	July 07	77.93	7.2	2250
	August 07	79.28		
	September 07	79.39		
	October 07	79.55		
	November 07	80.17		

	January 08	80.63		
	March 08	81.10		
	April 08	81.68	7.6	2370
	August 08	84.57		
	September 08			
	October 08	86.81	7.4	2300
	November 08			
	December 08			
	January 09	87.80		
	June 09	87.50	7.4	2440
	August 09	91.04		
	December 09	90.58	7.49	2240
	February 10	90.69		
	May 10	90.90		
	August 10	91.53	7.52	2385
	November 10	91.43	7.47	2010
	March 11	92.00	7.24	2075
	June 11	92.36	7.55	2180
	September 11	92.49	7.35	2160
	December 11	93.89	7.70	2200
	March 12	95.05	7.25	2460
	June 12	97.7	7.6	2900
	September 12	98.95	7.93	2840
	November 12	101.99		
MW8	September 06	13.9		
	January 07	14.1	6.7	2260
	April 07	13.6		
	July 07	14.41	6.8	2530
	August 07	14.40		
	September 07	14.38		
	October 07	14.37		
	November 07	14.43		
	January 08	14.28		
	March 08	14.30		
	April 08	N/S		
	August 08	14.52		
	September 08			
	October 08	14.59	NA	NA
	November 08			
	December 08			
	January 09	14.60		
	June 09		Unable to sample	
	August 09	14.77		
	December 09	14.85	Casing blocked	
	February 10	14.55		
	May 10	14.47		
	August 10	14.46	Casing blocked	
	November 10	14.49	Casing blocked	
	March 11	14.87	Casing blocked	
	June 11	14.37	Casing blocked	
	September 11	13.8	Casing blocked	
	December 11	13.24	Casing blocked	
	March 12	12.57	Casing blocked	
	June 12	12.76	Casing blocked	
	September 12	12.63	Casing blocked	
	November 12	12.79	Casing blocked	







All monitoring locations have remained relatively consistent over the past three months. The SWL at MW7, which is located at the north-eastern corner of the mine lease on mine-owned land, continues to drop more prominently as a result of depressurisation from a reduction in groundwater pressures due to mining both the Tarrowonga and Boggabri Coal pits.

Surface Water

Routine surface water monitoring was conducted during November 2012. Total suspended solid levels were generally low as a consequence of no inflows due to persistent dryweather. Heavy rainfall in late January filled dams up to 90% capacity in some instances. No wet weather discharges occurred from site during this period.

Samples were taken at set sample points for local creeks, both upstream and downstream following the rain event. Water stored in discharge dams that have minimum capacity remaining have been pumped to larger dams and used for dust suppression in order to maintain adequate capacity on site for future rain events.

Rehabilitation

Rehabilitation has continued on the southern emplacement. Poor rainfall up until January had held back rehabilitation development but recent heavy falls in late January have allowed seedlings and cover to improve. Minor damage occurred on the southern emplacement rehabilitation due to the rain with wash outs and silting of contour drains. These areas will be repaired in early February. Additionally, the rock lined drain on the northern emplacement will be extended to the top height of the dump in early February as well as seeding of the northern area of the main topsoil stockpile. These areas will continue to be monitored closely over the next three months.



Figure 1 - Southern area of main top soil stockpile



Figure 2 – Rehabilitation of Northern Emplacement



Figure 3 – Rehabilitation of Northern Emplacement

Complaints

Since the last meeting, there have been 13 complaints, as outlined on the following pages.

Method	Date/Time of Complaint	Nature of Complaint	Investigation	Action Taken / Follow-up
Email from EPA to Environmental Manager on behalf of local landholder	1/11/2012 12:14pm	Complaint in relation to the extent of dust generated following a blast at Tarrawonga in windy conditions. Suggestions made that the blast should have been delayed for more favourable conditions.	On investigation of the complaint it was found that: - moderate wind speeds were forecast for the 1 st November from the NW and WNW - The wind was monitored during the morning of the blast and varied between 4.4m/s up to 6m/s which would be considered as a gentle to moderate breeze as defined by the BOM. - At the time of the blast wind speed was measured as 5.7m/s from the North West. - The dust from the blast was directed across Whitehaven owned property. - The blast was viewed by the Environmental Officer from Blair Athol Lane and it was noted that the dust travelled across towards the Templemore property (Whitehaven owned) before dispersing. - A check of the Real Time PM ₁₀ at "Flixton" identified no peak in dust levels around the time of the blast.	No further action required. A response to the complaint was provided to the EPA.
Phone call to Environmental Officer	23/11/2012 ~9:00am	Thick cloud of dust from Tarrawonga and Boggabri Coal from about 7:00pm or 7:30pm when the wind changed from an easterly to a strong southerly. The complainant said he is not normally affected but this was the worst he had seen it.	The property was identified as being about 13km north east of Tarrawonga, with Boggabri Coal in between. Tarrawonga's Environmental Officer conducted an investigation and found that during the time of the complaint haul trucks were dumping on the eastern face of RL 357 on the northern emplacement and also on the southern emplacement. Wind was predominately from the south east and average wind speed was 6.04m/s as supported by the weather station wind-rose (wind-rose from 7.00pm -8.00pm). Water carts on day shift used approx 1,481,000 L of water and 928,000 L during night shift. The night shift OCE and the Operations Manager were both advised of the complaint.	No further action required. The complainant said he did not require a return call.
Text message to Environmental Manager from unknown complainant	23/11/2012 5:38pm	Complaint relating to a cracked windscreen, with note that it had only been replaced the previous week.	No name was attached to the text message. Whitehaven is not liable for damage to windscreens on public roads. It was not identified if the windscreen damage was related to coal haulage, albeit this was assumed – the complainant would need to follow this up with the source of the damage if known.	No further action taken.
Email to Environmental Manager from	26/11/2012 2:51pm	Dust along haul roads coming off southern emplacement. Suggested that water carts were not in use. Also	Dust is monitored on a daily basis and managed with water carts at all times. As the complaint did not specify a specific time it is impossible to quantify the extent of works undertaken to mitigate dust lift off from site that could correlate to the complainant's issue. In terms of the	EPA discussed the issue of dust at a meeting onsite on the 4 th December 2012.

Method	Date/Time of Complaint	Nature of Complaint	Investigation	Action Taken / Follow-up
EPA on behalf of anonymous complainant		complaint in relation to the amount of litter along public roads.	extent of litter along the public roads, this is an issue for the wider community, and not just Tarrawonga Coal. Operators have been given toolbox talks on several occasions in relation to littering and doing the right thing. It is not something that can be specifically policed by Tarrawonga, especially given the public and other traffic that utilise the public roads.	
Email to Environmental Manager	29/11/2012 2:45pm	Complaint relating to dust generated from a blast earlier today impacting on the complainant's property. Suggestion that with technology available for predicting weather conditions, the mines should be in a position to not blast when impacts like this are likely to occur.	<p>The Gunnedah weather forecast was taken into consideration preceding the blast. The forecast indicated calm wind speeds of 7km/h (1.9 m/s) from the NNW on the day of the blast. The forecast indicated higher wind speeds for the rest of the week ranging from 12km/h to 28km/h. The Environmental Officer discussed this information with the Operations Manager on the morning of the blast and it was concluded that based on the forecast, Thursday the 29th was an appropriate day to fire.</p> <p>The OCE monitored wind speeds and direction the morning of the blast and noted 1.6m/s ESE at 9.33am and 0.7m/s SSE at 10.40am on the OCE Blast checklist. Given the gentle wind speeds, the blast was considered appropriate to fire.</p> <p>The wind speed and direction at 12.00pm was 2.7m/s WNW (288°).</p> <p>The Environmental Officer inspected the blast from Manilla Road to the South of Tarrawonga and noted that dust was present but no fume was rising from the shot. The dust was swept in an ESE direction towards Bollo Creek Station (Whitehaven owned) and dissipated SW of Goonbri Mountain (from the line of sight observed). Photographs of the shot were taken from Manilla Road showing the dissipation of the dust as it travelled east. They identify a dust cloud generated as a consequence of the blast, but that it has dissipated well before reaching Goonbri Mountain to the east, and still over WHC owned land.</p>	No further action taken.
Email to Environmental Manager from EPA on behalf of anonymous complainant	29/11/2012 3:15pm	Complaint relating to dust generated from a blast at 12:08pm which created a lot of dust. There was a slight breeze from the north which carried the dust southwards.	As per complaint 54.	No further action taken.
EPA on behalf of anonymous complainant	1/12/2012 ~8:40am	Complaint relating to dust generated from southern emplacement at Tarrawonga during dumping operations.	<p>Investigation initiated through the Environmental Officer at Tarrawonga to review operations at the time of complaint. Investigations confirmed operations occurring as per normal with haul roads adequately water by operating water carts. Wind conditions at the time of the complaint were from the north west at an average speed of 1.4m/s.</p> <p>Without additional specific detail as to the nature of the complaint, it is difficult to provide any further quantification of dust conditions other than advise the EPA to review the available imagery from the site camera.</p>	No further action taken.
EPA on behalf	5/12/2012	Complaint relating to dust generated	Tarrawonga has no legal capacity to undertake dust suppression activities on public roads.	No further action taken.

Method	Date/Time of Complaint	Nature of Complaint	Investigation	Action Taken / Follow-up
of anonymous complainant	6:59am	from vehicles using gravel roads to access both Tarrawonga and Boggabri Mines.	The vast majority of employees at the Tarrawonga mine access the site via the sealed haul roads. As part of the VPA for the Tarrawonga Extension, additional tar sealing of unsealed roads is expected subject to the Tarrawonga Extension being approved. This may assist in reducing dust lift off from traffic on these roads.	
EPA on behalf of anonymous complainant	7/12/2012 ~8:20am	Complaint relating to excessive dust in the air around Tarrawonga mine at approximately 8:20am and complaint relating to a Toll haulage truck T19 losing coal from a covered load between Boggabri and Gunnedah. The truck was travelling at normal speed and the load appeared covered however coal was observed coming from the vehicle.	An investigation was undertaken and confirmed the following:- <ul style="list-style-type: none"> This particular morning was very hazy and could have been impacted by what appeared to be smoke haze as verified from imagery from the site camera. All water carts were operating on night shift of the 6th December with 1,000,056L of water used on dust suppression, with a further 1,741,000L used on the day shift of 7th December. To aid dust suppression Tarrawonga is currently involved in a trial of Dustex product on the southern haul road. With regard to the Toll Truck, the matter was referred to Toll for investigation. The outcome of the investigation was that T19 loaded at the Tarrawonga bin at 8am and carried a compliant load of 41t. The driver was an experienced operator and reported no abnormality with the loading or tarping process. T7 followed T19 into the CHPP with the driver not identifying any coal spilled onto the roadway. Based on the GPS tracking system, T19 was between the Old Bluevale Road intersection and the Kamilaroi Highway intersection at 8:30am some 35km from the mine site and on this basis very unlikely that coal would be spilling from the vehicle. 	No further action taken.
EPA on behalf of anonymous complainant	13/12/201 1:14pm	Complaint relating to excessive dust in the air around Tarrawonga mine for the period 11am-1pm.	The Environmental Manager was at site at the time of the complaint and had been undertaking visual inspections of the site to verify dust management was occurring. During these inspections all measures were being undertaken to minimise dust with haul roads well watered and the Dustex trial still occurring. Dust was being generated from dumping activities however this was localised and dispersing relatively quickly. As no specific detail was provided as to the source, general location or timing of the dust, no further information could be provided in response. The EPA was subsequently advised that unless more specific details relating to the complaint could be provided, no additional investigation into the dust source could be undertaken.	No further action taken.
EPA on behalf of anonymous complainant	17/12/2012 5:02pm	Complaint relating to excessive dust in the air around 5pm from the three mines.	As little information was provided with the complaint, there was limited capacity to investigate the matter. Dust control included the use of 3,926,000L of water through the water carts over the period of day and afternoon shift for the 17 th December. Snapshots were taken from the site camera around the time of the complaint and provided to the EPA. These photographs demonstrated no specific source of unmitigated dust from the Tarrawonga site.	No further action taken.
EPA on behalf of anonymous complainant	9/01/2013 5:27pm	Complaint relating to excessive dust from Tarrawonga mine this morning.	The 9 th January was a very dry and windy day causing significant dust generation from all sources in the area. During the morning, the Environmental Manager had discussions with the Engineering Surveyor, the Open Cut Examiner and the Operations Manager to identify options	Email advice issued to EPA confirming actions taken.

Method	Date/Time of Complaint	Nature of Complaint	Investigation	Action Taken / Follow-up
			<p>to reduce the dust lift off associated with the Tarrawonga operation. As a consequence of these discussions, the following actions were implemented:</p> <ul style="list-style-type: none"> • Scraper Crew parked at 9:30am • Daracon Coal Crusher parked at 10am • Toll Trucks reduced to 10km/hr on ROM circuit • Dozer 822 re-tasked from priority work that was generating dust at Ramp 4 at 9:30am • Excavator 530 relocated from Ramp 6 to Ramp 4 to replace Excavator 2500 which was parked at 10:15am • Excavator 532 relocated from priority dig face that was generating dust at 9:50am • Additional water cart mobilised <p>Environmental Manager reviewed dust levels from locations surrounding the mine from 11:30am and found dust levels to be minimal and that the actions taken were effective. Advice was issued to the EPA to this effect.</p>	
EPA on behalf of anonymous complainant	10/01/2013 6:00am	Complaint relating to excessive noise from Tarrawonga mine this morning. Sounded like dozer was in complainant's front yard.	<p>Advice issued to the EPA that Tarrawonga was not operating between 2:30am and 7am on the morning of the complaint, and that to our knowledge, Boggabri Coal was also not operating a production shift. Review of noise files from the real time noise monitor at around 6am did not identify any low frequency or equipment related noise.</p> <p>EPA then responded indicating that the complainant now thought it may have been from the period 7am to 9am. Review of the data from the noise monitor indicated low levels of low frequency noise throughout this period, with wind speeds generally in the normal range <3m/s and from the west/northwest. Review of noise files between 7am and 9am again could not identify any significant equipment and/or dozer noise. This advice was issued to the EPA, together with copies of noise files and the noise data chart for the 10th January.</p>	Email advice issued to EPA outlining noise conditions at the time of the complaint and a copy of noise files and noise chart identifying no excessive operational noise. The EPA agreed via a follow up phone conversation that the mine may not have contributed to the noise heard at the complainant's property at the time of the complaint.

Minutes of the 29th Meeting of the Tarrawonga Coal Mine Community Consultative Committee

Meeting Held: 8th May 2013, 10am

Venue: Tarrawonga Coal Mine, Training Room

Prior to the commencement of meeting, Jill Johnson advised that Mr John Turnbull had been approved by the Department of Planning and Infrastructure as an Independent Chair for the Tarrawonga, Boggabri Coal and Maules Creek Project Community Consultative Committees. His appointment had only just been issued and he was unable to attend the meeting at such short notice. Whitehaven asked Julie Heiler if she would chair the meeting and she accepted. Mr Turner will be available for the next meeting.

A copy of Mr Turner's CV and application for Independent Chair was tabled for members to view at the end of the meeting.

1.0 Present and Apologies

Present: Mr Tim Muldoon (TM), Community Liaison Officer
Mr Matthew Sparkes (MS), Operations Manager
Mr Brian Cullen (BrC), General Manager
Mrs Julie Heiler (JH), Community Rep, Acting Chair
Mrs Jill Johnson (JJ), Environmental Officer
Mr Bob McGregor (BM), Community Rep
Clr Catherine Collyer (CC), Narrabri Shire Rep
Mr Peter Laird (PL), Community Rep
Mrs Anne Laird (AL), Assistant for Peter Laird
Mr Jim Picton (JP), Alternate Community Rep

Apologies:

Mr Danny Young (DY), Environmental Manager
Mr Bart Crosby (BC), Community Rep
Clr Hans Allgayer (HA), Gunnedah Shire Rep

Moved: CC and TM

2.0 Declaration of Pecuniary or Non-Pecuniary Interests

JH leases "Velyama" from Aston Resources (now Whitehaven) and is in discussions with Whitehaven regarding water issues at her property.

BM property "Tarrawonga" is within the acquisition zone for Tarrawonga operations.

BM retains a commercial lease with Whitehaven for land on which part of the Tarrawonga Haul route is located.

3.0 Previous Minutes

Minutes of the previous meeting were adopted as a true record on the motion of Bob McGregor and Cath Collyer.

4.0 Business Arising

- 4.1 Discussed at commencement of meeting. See page 1 for details.

No further action required.

- 4.2 JJ provided an update on the environmental and approval aspects of the extension project and advised that Whitehaven is in the process of developing management plans and other required documents, such as the Mining Operations Plan. Notifications required within 3 months of the date of approval of the project approval have been issued. BM asked if a letter had been issued to him regarding property inspections for blasting. JJ said she thought a letter had been issued but that she would check on return to the office.

MS advised work is continuing on the current budget which will cover the next 3 years. CC asked when it would be ready. MS said in the next few months and that it would just be an update to the previous budget.

JJ to confirm offer for property inspection was issued to Bob McGregor.

- 4.3 In relation to the issue of both Tarrawonga and Maules Creek Project Approvals/VPAs requiring bitumen sealing of the same section of Manilla Road, JJ advised that Whitehaven is awaiting a meeting with Narrabri Shire Council (NSC) to understand where else the funding will be allocated. JJ said she understood, following the last CCC meeting, that CC was following up on the meeting. CC said she had spoken with NSC and that a meeting would be planned in the near future. She said if it didn't happen soon she would issue an email herself to all relevant parties. CC implied that Whitehaven was partly responsible for the delay in conducting the meeting. BC said that Whitehaven was awaiting advice from NSC regarding the meeting.

CC said that EPA and DoPI had requested participation in the meeting regarding the road upgrade. JH asked what EPA has to do it with. CC said they are interested because of the dust issue. BC agreed with JH that it should be something agreed on between the mines and NSC as the mines have already agreed to meet the commitment of upgrading the road. TM asked how EPA and DoPI knew about the meeting in the first place. CC said someone has obviously been talking to them.

CC said NSC was waiting on Whitehaven to sign off on paperwork. The Mayor has had a conversation with Lance Muir (Whitehaven) who said they were waiting on consent. BC said the consent has already been issued and money has been committed via the Voluntary Planning Agreement. Whitehaven has committed to spending the money on the road network and is waiting for NSC to organise a meeting. BC said he would like to make it clear that Whitehaven has offered to attend a meeting about the road upgrade and has even raised the issue with NSC.

CC proposed to email relevant parties with proposed dates. BC and TM concurred with this approach.

Manilla Road upgrade update.

- 4.4 MS provided an example of the pre-blast environmental checklist. JH asked if photos are taken each time. MS said that they take a video and photos of each

blast. BM said that dust sometimes goes over neighbours' properties and asked about controlling the orange cloud. MS said there hadn't been any orange cloud released from Tarrawonga in recent history (in his time at the mine) and that perhaps it was from another mine. CC asked which site MS was referring to. MS reiterated that from visual inspections at the time of the blasts and review of videos of the blasts that no orange fume had been released from Tarrawonga during his time as Operations Manager.

There was general discussion about the difference between dust and orange fume. MS said dust and fume are two very different things. CC said that a few weeks ago there had been orange dust from a blast that was definitely at Tarrawonga. MS said there might have been dust released but the mine hasn't released blast fume (nitrous oxide) during his time at the site. MS said there are ways to avoid fume including controlling product type, blast design etc. JP said he doesn't accept any of what MS has said. He doesn't accept that the neighbours don't get dust or nitrous oxide fume. He said where he lives he can see it and he knows it has fume. MS said that's fine and that he doesn't need to accept what he has said. JP said he doesn't see why he has to get fume or dust. BM said lots of people had included their concerns about dust in their submissions on the extension project and he doesn't think their concerns were adequately addressed. He doesn't accept it either. He said 25% of dust in the valley is mine dust and 75% is road dust. He said it had been discussed at the Boggabri Coal CCC the week before that something desperately has to be done.

CC said over the last couple of weeks the air pressure had been keeping the dust in. JP said sometimes you have a job to see the mine. JH said from her property there isn't much difference between Boggabri Coal and Tarrawonga. BM said people from Whitehaven need to drive up the road around 6pm and 7am to see the dust. JH said the lack of rain is also part of the issue. They are currently picking cotton and creating dust so it's not just the mines.

BM said he objects and disagrees with the process. He's not happy with the Department of Planning and Infrastructure. The issues have stemmed from the Department. He said it was discussed at the Boggabri Coal CCC meeting the week before and he doesn't want to go through it all again.

All concerns were noted, however in relation to the agenda item it was agreed that the information had been provided as requested.

No further action required.

- 4.5 CC said there was no update regarding Mining Related Councils push for return of royalties to mining affected councils. Tim suggested that this item be removed from the agenda as the mine does not have any control over the situation. CC agreed that it is not relevant to the site and that it should be removed. Moved CC and BC.

No further action required.

- 4.6 CC asked for clarification as to what she was supposed to be investigating. She said the signs said she had checked showed consistent speeds within the Narrabri Shire section of Manilla Road with the exception of the bridge which is 10km/h.

JJ asked if this item could be removed from the agenda as it was also a matter for NSC. Committee agreed, moved CC, BM.

No further action required.

- 4.7 JJ tabled references in the 2010 Section 75W modification and LOM EA which noted that modelled noise exceedances at the “Tarrawonga” property would be >5dB above the 35dBA limit. JJ also made reference to a letter from DoPI thanking Whitehaven for advising them of a noise exceedance at “Tarrawonga” in 2012 but noting that “Tarrawonga” is within the compulsory acquisition zone and that the landholder had been notified of their rights under the Project Approval.

No further action required.

- 4.8 BM said he’d had the real time monitor from Idemitsu at his property and he was quite happy with the results from that as it proved noise had gone over the limit. He said he’s not happy with the dust. He said if the noise can be kept at bay then it will be ok at “Callandar” but the dust is an issue. He said there are kids living close to the mine that currently have chest infections and he doesn’t think the dust would be helping. JH suggested that any further personal matters should be discussed between BM and Whitehaven, not via the CCC. BM agreed.

No further action required.

- 4.9 MS said the current storage capacity at site was 459 megalitres which includes clean and dirty water dams but not in pit storage which is difficult to accurately estimate. He said the current volume of water stored onsite, as of the end of April, is 242 megalitres. JH asked how long it will take to use that water if things remain dry. MS said at the end of the previous month there was 270 megalitres but the mine is still drawing water out of the pit so that isn’t a true indication of the total volume of water used. He said if it remains dry the site will look to recommence pumping of water from the river.

No further action required.

- 4.10 JJ advised that she provided CC with Steve O’Donoghue’s contact details following the last CCC meeting.

No further action required.

- 4.11 CC said she’d had a conversation with Steve O’Donoghue (Department of Planning and Infrastructure) regarding possible installation of an offsite camera to monitor dust in the valley. She said Steve indicated it would be unlikely that the Department would fund it and that perhaps the mines could fund it themselves. CC said she thought it would be more beneficial if the State Government dealt with it so it was independent. She has left follow up messages with Steve but he has not returned her calls. CC said she thinks it would be very beneficial for everyone concerned.

CC to provide update at next meeting regarding discussions with DoPI about an offsite camera.

- 4.12 JJ advised that the Water Management Plan for the 2010 modification had not yet been approved. She said the indication from the Department was that the 2010 modification management plans would not likely be reviewed due to the submission of Life of Mine management plans in the near future.

No further action required at this stage. Life of Mine Extension Project Water Management Plan will be provided to the Committee once approved.

5.0 General Business

5.1 Mine Progress Report

MS provided the mine progress report as follows:

- 4.01 million BCM overburden removed
- 493,000 tonnes of coal mined
- Workforce currently 106 people including:
 - 74 permanent operators on site
 - 14 staff/management on site
 - 18 workshop employees

5.2 Environmental Monitoring Report

JJ presented the environmental monitoring results which are attached in the Environmental Monitoring Report.

JP said 90% of dust from roads was associated with the mines. BM said it was raised at the Idemitsu meeting the week before that prior to mining the only day the valley was dusty was on the Wean Race day. Everyone looked forward to the races but not the dust.

JP asked what happens when the monitor goes above the limit. JJ explained that the real time monitors have triggers for when results are approaching the limits and also when they reach the limits. When they are triggered alerts are issued via SMS to operations personnel who can assess weather conditions and recorded audio to determine if the elevated result is mine related. If it is mine related, operations will be modified to reduce the levels. MS explained different options at site that are used to minimise noise and dust if the monitoring sites indicate elevated results, and provided an example. JP asked which day that example had occurred and said that he didn't believe what MS was saying. TM reacted to JP's accusation that MS was lying to which JP said "what are you laughing at Tim, you don't live in the valley and have to put up with the shit". JH asked JP to settle down. MS continued explaining the different options and JJ provided an example whereby weather conditions were contributing to dust conditions and MS, in consultation with the environmental team, conducted a systemic process of relocating or standing down equipment. A complaint was subsequently received via the EPA in relation to dust and Whitehaven was able to forward to the EPA an email from MS which detailed what had occurred at what time.

CC asked MS whether he anticipated water shortages to be an issue. MS said the site tracks water levels every month and continually monitors the weather forecast. If there isn't any rain in the next couple of months the site will look at their options. MS said the site currently has 4-5 months of storage.

JP asked if Whitehaven will need to shut Dripping Rock Road eventually because the waste dump is creeping closer. MS said the current dump activity along the end is the limit that operations are sticking to for at least the next three years. BC said that the operations proposed in the EA in relation to this area are currently not planned but they may be undertaken in the future.

BM asked MS to elaborate on the complaint regarding blast fume as he had said earlier in the meeting that fume had not been released from site since he'd been there. MS said there may have been dust but there was no fume. He said there were claims of fume. JP said this confirms what he'd said earlier that the site was not operating to protocol. MS said the protocol had been implemented following the complaint.

JH asked if the protestors are notified of blasts. MS said no.

JH asked what changes to equipment numbers had occurred with the cutbacks. MS said 4 trucks, 1 excavator and some ancillary equipment such as a grader and dozers.

JP said he'd heard that Whitehaven had applied to run trucks into town 24/7 from Tarrawonga. BC said that is not the case. There is an application for the Vickery Project which includes trucking 24/7.

JP asked where the trucks will drive when they cart coal to the Boggabri rail loop (ie. on public roads or via internal roads). BC said coal haulage to Boggabri Coal will be via internal roads to a common ROM for either washing or bypass.

6.0 New Business

- 6.1 JJ tabled the letter and ASX announcement which had been issued to all CCC members in March in relation to redundancies. MS said the redundancies had resulted in the removal of one fleet to establish a sustainable mine for the next few years at least. CC asked how many people from Tarrawonga were made redundant. MS said 14 Whitehaven personnel and 4 casual labour hire operators plus some maintenance staff. Rocglen had a similar number of redundancies.

JH said GSC identified the need for support and asked if any counselling had been offered. MS said other than the entitlements they had under their agreement, everyone was offered access to counselling services. JP asked why people were put off when the mine just got approval for the extension. MS said the mine needs to be profitable so it was necessary with the current coal prices. The previous structure was not profitable. In addition to the redundancies, a change to the mine plan (in particular the extension to the north) is a key part of profitability.

CC noted that specialists would be required for the expansion and asked how many people would be employed during this process. BC said the extension is a continuation of operations and no additional people would be employed. MS said there is no plan to dramatically increase numbers for the extension. There might be an increase of one or two people associated with clearing. BC said an increase to the approved 3 million tonnes per year is not expected in the next three years.

CC asked if the coal in the expansion area was the same type as what is currently mined. BC said generally speaking it is the same type of coal. CC asked what type of coal it is. BC said it's a mix of PCI for steel making and thermal coal with both products either washed or bypassed (washing is avoided as it adds expense).

- 6.2 JJ tabled the letter to NSC regarding gravel crushing at the Whitehaven owned "Wean" property that was also provided to all CCC members when the ASX announcement (item 6.1) was issued. Since issue of the letter, a response had

been received from NSC that advised of their receipt of the letter and acceptance of the conditions (letter tabled). BC said Whitehaven had been approached by NSC for use of the property. BM asked if NSC had started taking out gravel. BC said they hadn't and that they won't be granted access until all conditions in the letter had been satisfied. JH said she understood NSC was using it as a backup as they're not getting enough gravel from Boggabri Coal for repair to flood damaged roads. JH said she thought the conditions were comprehensive but they should have also included a requirement for NSC to ensure the haulage route is adequately maintained before gravel haulage commences. BC said he believed this was NSC's issue, not Whitehaven's.

6.3 JJ tabled the letter and draft Blast Management Plan (BMP) for the extension project issued to all CCC members for review. The Project Approval requires the BMP to be prepared in consultation with the EPA and interested members of the local community who would potentially be affected by blasting. As the majority of the members of the CCC are nearby neighbours, or can consult with other neighbours who are not on the CCC, Whitehaven decided consultation through the CCC was appropriate. JJ noted that the BMP had been issued to the EPA for review and tabled an email from the EPA advising that they will not be providing comment. As all CCC members had had sufficient time to review the BMP, JJ proposed to go through and note any changes or additions from the previous BMP and then everyone would have a chance to make additional comments. Comments were as follows:

6.3.1 JJ – Section 2, Condition (h): The Leard Forest Mining Precinct Blast Management Strategy is currently being prepared but will not be finalised by the end of May deadline. It will therefore be appended when finalised.

6.3.2 JJ – Section 2.1: No change to blast criteria. Additional restriction to 4 blasts per week averaged over a calendar year. CC noted that Whitehaven owns a lot of properties around the mine. She also noted the comment that blast criteria doesn't apply if a private agreement is in place and asked whether the mine has to have an agreement to exceed at the project-related properties. JJ said the Project Approval specifically states the criteria is for privately-owned residences. Therefore, Whitehaven is permitted to exceed the criteria at the properties they own and there is no requirement for agreement with anyone. JJ said despite this, Whitehaven will not be aiming to exceed the criteria at project-related properties because an exceedance at any property is an indication of exceedances in the general area. CC asked whether this also applies for the number of blasts. JJ said there isn't any way to have a different number of blasts for privately owned properties compared to project related properties so the 4 blasts per week applies for all properties regardless of ownership.

6.3.3 JJ – Section 3.2 Management of Road Closures: this is a new section. The text says that the Road Closure Management Plan (RCMP) has been prepared in consultation with NSC. JJ noted that the RCMP had been issued to NSC for review prior to issue of the BMP to the CCC for review but a response had not yet been received. CC asked JJ to provide clarification of the consultation with NSC as she was not aware of anything. JJ explained that the draft RCMP, prepared generally in

accordance with the RCMP that has been successfully operating at Roclen for Wean Road, was posted to the General Manager of NSC for review. Given the tight deadline for submission of the BMP to DoPI, the review of both the RCMP by NSC and the BMP by the EPA and CCC was being conducted in parallel and the document is written to be as complete as possible, obviously pending consultation. This approach is commonly used so we don't have people review a half written document and then have to review it again when all the sections had been combined.

CC suggested that instead of the RCMP saying road closures will be scheduled to minimise impact on road users and the local school bus run it should specify peak times which must be avoided. JJ asked CC to provide an indication of these times. CC said 7:30am – 9:00am and 3:30pm - 5:30pm. JJ said the Project Approval restricts blasting to the hours of 9:00am to 5:00pm.

6.3.4 JJ – Section 3.2 Management of Road Closures: the last sentence is incorrect and will be modified. Blasting will occur within 500m of Goonbri Road within the next 3 years. JJ also noted that JH had suggested that Whitehaven contact the neighbours who live past Tarrawonga who will be most affected by road closures. JJ committed to doing this prior to submitting the BMP to DoPI for approval.

6.3.5 BM – Section 3.5, last dot point: This statement worries him. BM was unable to provide a suggestion as to how the statement could be modified. He said he is concerned about dust. JJ said the statement relates to blast fume, not dust. MS said blast fume and dust are two different things. Fume is a gas associated with combustion of the explosive. Fume is monitored every blast with a system of classification. If operations personnel see fume leaving site they will contact people in the path that the fume is travelling.

JP said he is worried about fume affecting his water quality. MS said it won't drop out of the air as a particle (like dust does).

CC said she is trying to get her head around the difference between dust and gas and how you tell whether it's fume. MS said it is a visual assessment of different intensities – if there's no colour there's no fume.

6.3.6 JJ – Section 3.6: new section relating to impacts of blasting on low permeability barrier. To be addressed closer to the time of constructing the barrier.

6.3.7 JJ – Section 3.7: new section relating to cumulative blast impact management. As per previous discussion.

6.3.8 BM – Section 4.1: BM asked if Whitehaven had issued him with a letter advising that he is entitled to a property inspection as "Tarrawonga" is within 2km of the open cut. JJ said she thought she had but she will check on return to the office.

JJ to confirm that notice was issued to BM regarding property inspection.

- 6.3.9 JJ – Section 5.1.2: No change to monitoring locations. JH suggested that monitoring locations be reviewed as mining moves past the “Templemore” monitoring location. Agreed to leave it at “Templemore” for now but that wording will be included in the BMP to indicate that monitoring locations will be reviewed as mining progresses and/or during the next review.
- 6.3.10 JJ – Section 5.1.3: Permanent blast monitors have been installed but are not reliable at this stage. Information has been included on permanent and portable monitors to encompass all situations.
- 6.3.11 CC - Appendix 3 Road Closure Management Plan: Dripping Rock is a major tourist destination in the area and CC is concerned of the impact of road closures on tourists travelling there. Following information from people in Queensland, CC suggested that signs be installed on the roads to alert tourists and other road users of impending road closures. JJ said the road closures would only be for 10 – 15 minutes. MS referred to the second page of the RCMP which includes details of road closure signage. CC said she hadn’t seen the second page of the RCMP and is happy with the information that is included.
- 6.3.12 JH said she’s not impressed with EPA about not wanting to review the BMP. JJ said this is a standard response from the EPA about management plans that DoPI enforce must be reviewed by EPA. EPA manages environmental impacts through other means such as the Environment Protection Licence.
- 6.3.13 BM asked if the review period should be more frequent than every two years, just in case something changes in that time. JJ said Section 7 states that the plan will be reviewed at least every two years and following significant changes (ie. changes to monitoring locations). Therefore if anything changes within the two year period it will be captured.
- 6.4 JP commented that the private haul route no longer has security and asked if the public could use it. BC said the private sections of the haul road are for Whitehaven and Tarrawonga employees and contractors only. JP said to BC that you know we all use it. BC reiterated that it is a private haul road. JP said that everyone is using it. BC again reiterated that the public should not be using the private haul road. BM said if the general public continues to use the private haul road he will close it. He’s not going to wear it if someone crashes into the windmill or something like that. JH said she didn’t think people were still using it. BM said heaps of people were using it. JH said she used it to come to the CCC meeting but other than that she had avoided it. JP told JH she wasn’t a worker so she shouldn’t have used it. BM said CCC members can use it when travelling to a meeting. JJ said to JP that that would be like saying delivery drivers can’t use it because they’re not Tarrawonga workers. JP said he uses it when he drives to Gunnedah. BC said again that the public shouldn’t be using it.

BM said that Boggabri Coal workers shouldn’t be using it either. BC said that Whitehaven had issued a letter to Boggabri Coal requesting that their workers and

contractors cease using the private haul route and that a response had been provided acknowledging receipt of the letter. JH said she thought both mines would use it because if Boggabri Coal workers drove on Manilla Road they would create dust. BM said the lease is with Whitehaven not Boggabri Coal and it was set up that way to force Boggabri Coal workers to use the Kamilaroi Highway and the access road that Boggabri Coal constructed. BM said it's not Whitehaven's fault, and that it would be difficult to keep people off roads. BM said he had sent a letter to each member of the CCC regarding the road. He said if anyone wanted to see a copy of the lease they could contact the Department.

No further action required.

- 6.5 General discussion about the poor state of Manilla Road. CC asked how many people from Tarrawonga travel from Manilla. MS said probably 3 to 6 per shift but they car pool so probably only 2 or 3 cars. CC said Tamworth Regional Council isn't getting support from the mines. There is a State Government initiative to seal the entire Manilla Road. Namoi Councils have classed it as a high priority. JJ asked if this item can be left off the agenda as per previous discussions that Council issues are out of the control of Whitehaven. Committee agreed.

PL noted that the most dangerous part of Manilla Road is near Pine Grove. There is deep gravel, it's dusty and the bushes have grown back. CC said she would take this up with NSC and would call PL.

No further action required.

7.0 Complaints

Complaints were discussed in the Environment Monitoring Report.

8.0 Next Meeting

The next meeting will be held at the Tarrawonga Coal Mine Training Room on Wednesday 14th August 2013 at 10:00am.

Meeting closed at 12:15pm.

Julie Heiler – Temporary Chair

Tarrawonga Coal Mine Community Consultative Committee Meeting #29

Environmental Monitoring Report February 2013 – April 2013

Noise Monitoring

Noise monitoring was undertaken at the “Tarrawonga” property on the 18th, 19th, 20th and 21st March 2013, with results outlined below. The noise criterion for the mine is 35dB(A) Leq (15 min) for all operating times.

Table 1 TCM Noise Monitoring Results – 18 th , 19 th , 20 th , 21 st March 2013				
Date	Time	dB(A),Leq (15 min)	Wind speed/direction	Identified Noise Sources as dB(A) Leq (15 min)
18 March 2013	9:05am	39	5.4 m/s, SE	Wind in trees (36), birds & insects (32), mine noise (32)
18 March 2013	9:29pm	37	6.3 m/s SE	Birds & insects (37), cattle (26), TCM inaudible
19 March 2013	1:15 am	40	3.4 m/s SE	Mine noise (40) (TCM est. (39)), insects (29)
19 March 2013	1:52pm	36	2.6m/s SE	Birds & insects (35), mine noise (25)
19 March 2013	9:22pm	43	3.7m/s SE	Wind in trees (40), birds & insects (39), mine noise (33)
20 March 2013	1:17 am	38	3.1 m/s E	Insects (36), mine noise (34)
20 March 2013	9:53am	35	2.6m/s NE	Birds & insects (35), mine noise (26)
20 March 2013	7:31 pm	37	1.2 m/s NNW	Birds & insects (34), dogs (32), mine noise (28)
21 March 2013	1:05 am	38	6.5 m/s NNE	Mine noise (38) (TCM est. (38)), insects (33), dogs (32)

Table 2 TCM Sleep Disturbance Monitoring Results –19 th , 20 th , 21 st March 2013			
Location	Time	dB(A),Leq (1 min)	Wind Speed/Direction
Tarrawonga (19/3)	1:15 am	47	3.4 m/s ESE
Tarrawonga (20/3)	1:17 am	41	3.1 m/s E
Tarrawonga (21/3)	1:05 am	47	6.5 m/s NNE

The results indicate that noise emissions from TCM were higher than the operational noise criterion at the “Tarrawonga” property monitoring location during the night of 18/19 and 20/21 March 2013. Atmospheric conditions at the time of the monitoring indicated that on 18/19 March the wind was at 3.4 m/s from the east south east and on 20/21 March the wind was at 6.5 m/s from a north easterly direction. As such, the elevated noise levels occurred under non-compliant atmospheric conditions. It should also be noted that the “Tarrawonga” property retains acquisition rights in the Project Approval for the Tarrawonga Mine as a consequence of modelled noise predictions exceeding 35dB(A). The measured levels of 38 and 39 dB(A) attributed to Tarrawonga operations are consistent with the modelled predictions established in the noise model for the modification to Tarrawonga operations. As a consequence, the noise limit of 35dB(A) does not apply at the “Tarrawonga” receiver.

In regards to the sleep disturbance criteria, the results indicate that the L1 (1 min) noise from TCM exceeded the sleep disturbance criterion during the night time monitoring periods on March 19 and 21 (i.e. at approximately 1 am). As per the discussion above relating to operational noise, the

measurements were made under non-compliant atmospheric conditions and Tarrowonga property is subject to acquisition per the TCM Project Approval.

Notifications were sent to both the landholder and EPA notifying them of the results.

The real time noise monitor continues to be located at the “Blair Athol School House”. The alarm system on the noise monitor is operating sufficiently and all alarms are being investigated by the Environmental Officer and OCE’s with actions put in place when required.

Blast Monitoring

Blasting Results

Since the first shot there have been 419 blasts (until the end of April 2013).

All blasts over the last three months have been compliant with the blast criteria. One blast, on on 21/03/13, recorded an airblast overpressure of 115.7dBL at the “Templemore” monitor which is within the allowable exceedance of 5% of the total number of blasts over 115dBL over a period of 12 months and was the first result above 115dBL over the last 12 months.

Air Quality

Air Quality (Dust Deposition) Results

MONTH	TEMPLEMORE (EB-4)	BOLLOL CREEK STN (EB-5)	AMBARDO (EB-6)	TARRAWONGA (EB-7)	THUIN (EB-8)	PINE GROVE (EB-9)	TARRAWONGA MINE (EB-10)	TARRAWONGA MINE (EB-11)	PINE GROVE (EB-12)	BOLLOL CREEK (EB-13)	TARRAWONGA MINE (EB-14)	TARRAWONGA MINE (EB-15)	EB 16 - JERALONG NORTH
May 2012	3.2		0.5	0.2	5.4	1.5	9.2	0.7	0.7	2.3	5.4	8.8	5.8
June 2012	3.4	0.7	0.3	0.4	2.4	0.3	2.1	0.9	0.4	2.9	1.9	4.5	5.1
July 2012	1.3	1.2	0.5	0.3	1.9	0.3	14.8	0.7	0.5	2.8	2.3	14.5	1.1
August 2012	3.3	0.3	0.9	0.8	2.8	3.4	10.3	1.1	1.0	3.1	1.3	4.8	0.9
September 2012	0.9	4.4	1.1	1.2	2.8	1.1	5.5	0.8	1.2	1.5	1.1	4.3	1.1
October 2012	1.3	1.2	1.0	0.1	2.9	0.7	4.5	2.5	3.5	3.8	1.1	2.7	1.8
November 2012	2.6	5.3	2.8	2.3	2.1	1.9	4.2	1.1	0.5	0.4	1.9	3.3	2.0
December 2012	1.8	2.1	1.1	0.9	2.8	1.0	29.9	1.4	0.9	4.6	1.1	3.9	1.8
January 2013	2.1	4.2	1.5	0.8	4.2	1.3	9.9	1.7	1.7	3.0	4.6	4.2	9.5
February 2013					1.5		2.6	0.6	0.8	1.1	1.5	2.2	5.1
March 2013	0.8	4.4	0.2	0.3	1.3	3.1	2.2	0.6	1.1	0.7	0.8	2.4	1.4
April 2013	0.2	0.1	0.5	1.1	1.8	0.6	2.4	1.3	0.9	1.4	2.0	4.9	1.2
ANNUAL AVERAGE	1.90	2.39	0.95	0.76	2.66	1.38	8.13	1.12	1.10	2.30	2.08	5.04	3.07

All monitoring locations remain below the limit of 4g/m²/month with the exception of EB-10 and EB-15. As both monitors are located on mine-owned land, compliance criteria do not apply.

Recent complaints in April relate to elevated visual dust levels around the Tarrowonga and Boggabri mine, primarily between the hours of 7 and 9am. Tarrowonga recognise the issue of

temperature inversions impacting on the capacity for dust to disperse during the cooler months and has made every effort to limit dust levels (see complaints section). Another impact on dust levels is general use of gravel roads in the nearby area, particularly the Boggabri - Manilla Road. Whilst Tarrawonga notes some employees use these roads, the majority of travel to site is via the sealed haul road. Morning traffic on these roads to nearby mines and also general use contributes significantly to dust levels whilst temperature inversions are active.



Figure 1 - Boggabri Manilla Road 7am 30/04/13



Figure 2 - Boggabri Manilla Road 7:10am 30/04/13



Figure 3 - Goonbri Road (non mine related traffic) 7:00am 24/04/13



Figure 4 - Tarrawonga Mine dust generation with temperature inversion active 7:30am 24/04/13



Figure 5 - Tarrawonga Mine dust generation 1pm 24/04/13

PM₁₀ Results

The annual average for PM₁₀ readings is currently at 19.59µg/m³ (until end of March 2013) and remains well below the annual average limit of 30µg/m³. PM₁₀ levels have remained compliant since the last CCC meeting.

The fixed real time air quality monitor (TEOM) is currently providing daily reports as well as real time air quality results. As at the end of April, the 24hr average PM₁₀ level was recorded at 14.1 µg/m³, below the 24hr criterion of 50µg/m³. As with the real time noise monitor, an alarm system

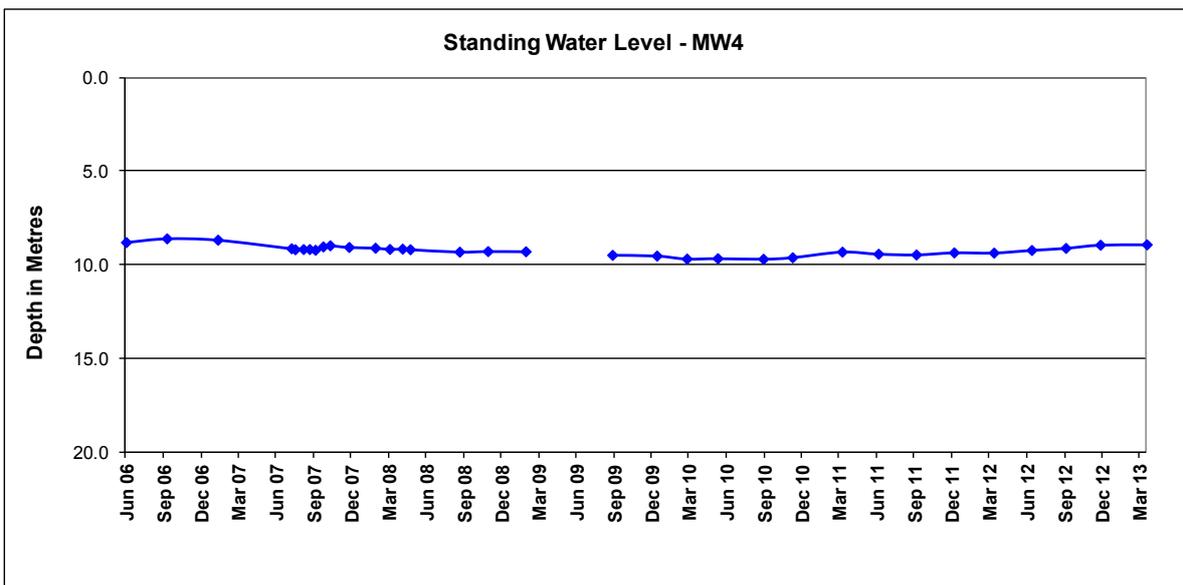
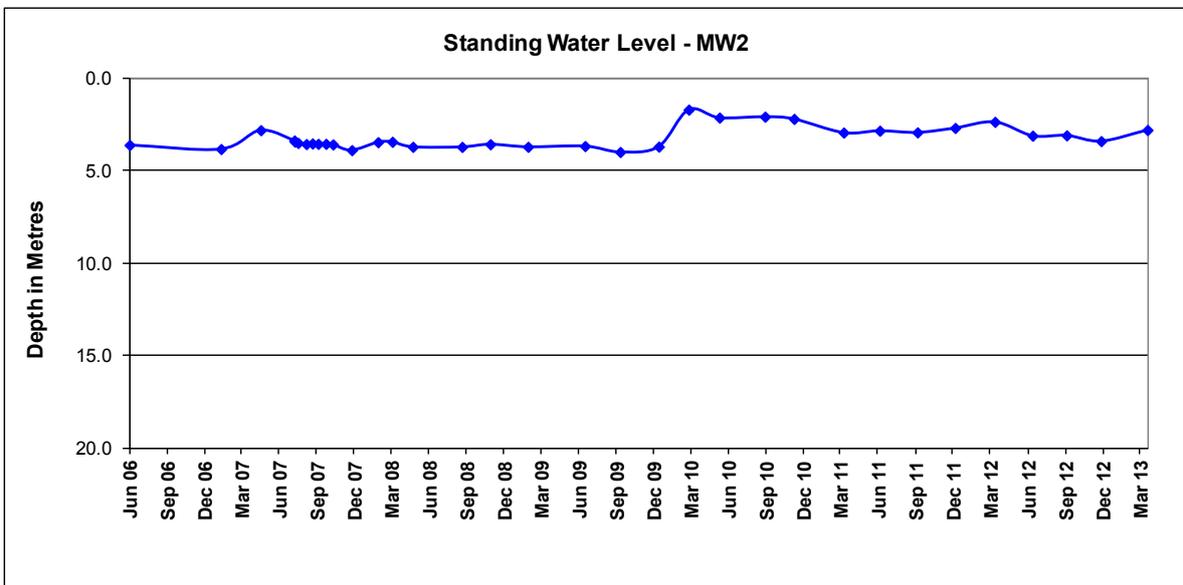
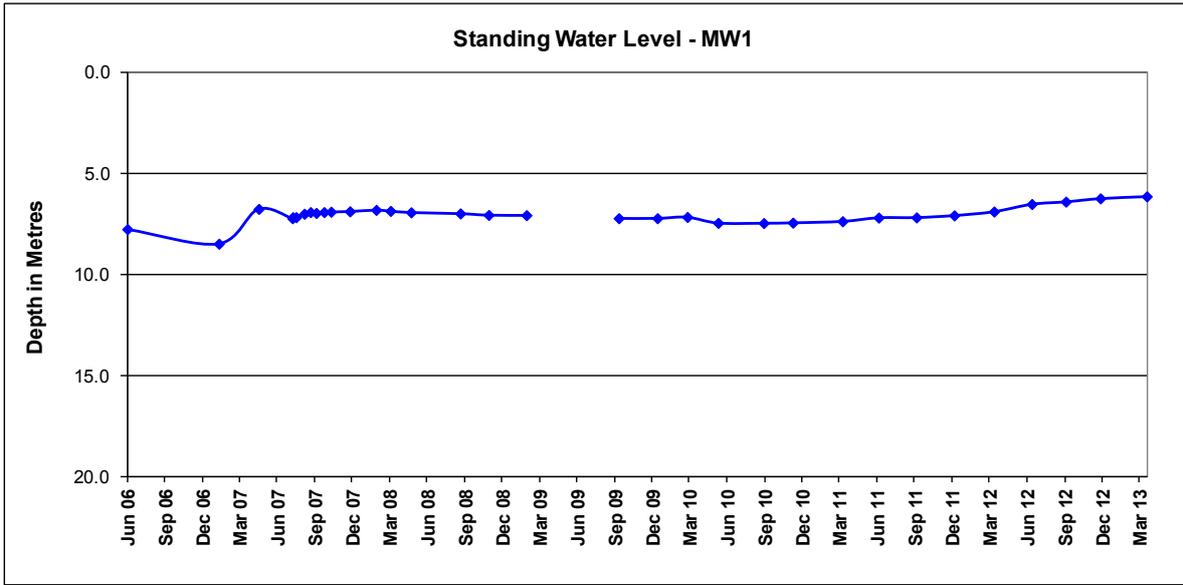
has been activated on the TEOM to alert when dust levels reach a pre-determined level based on wind direction from the mine site. This will be monitored closely to verify if dust levels from the site approach compliance limits.

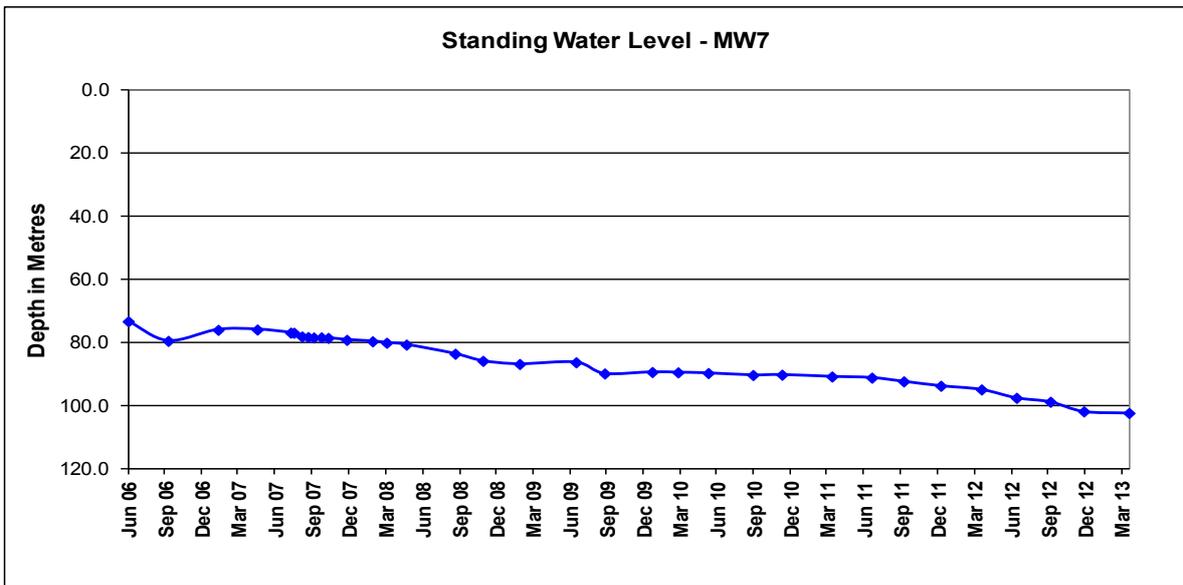
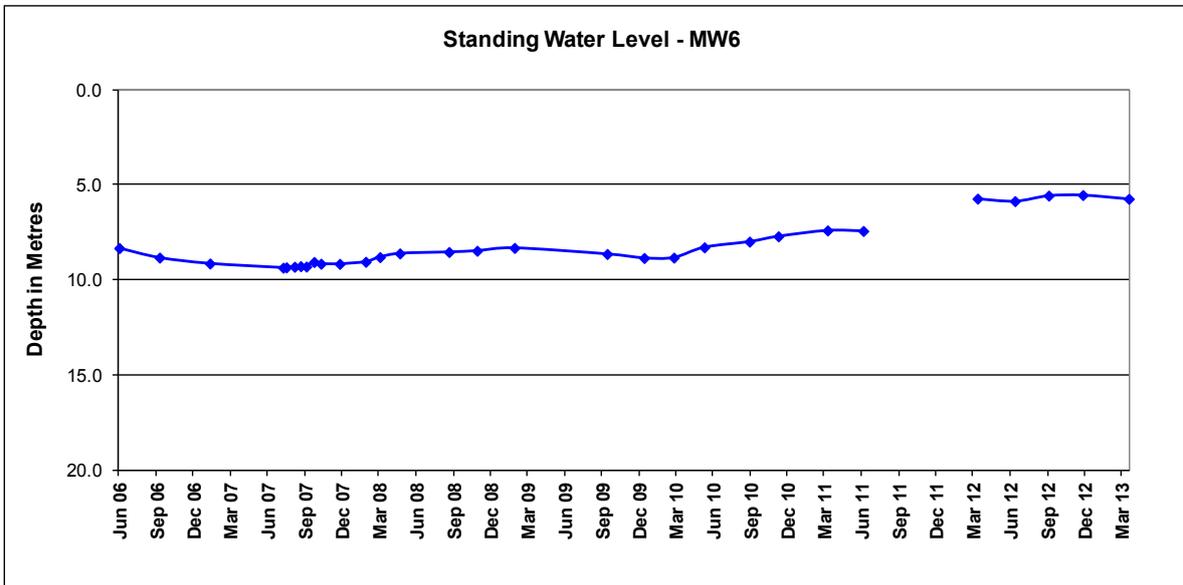
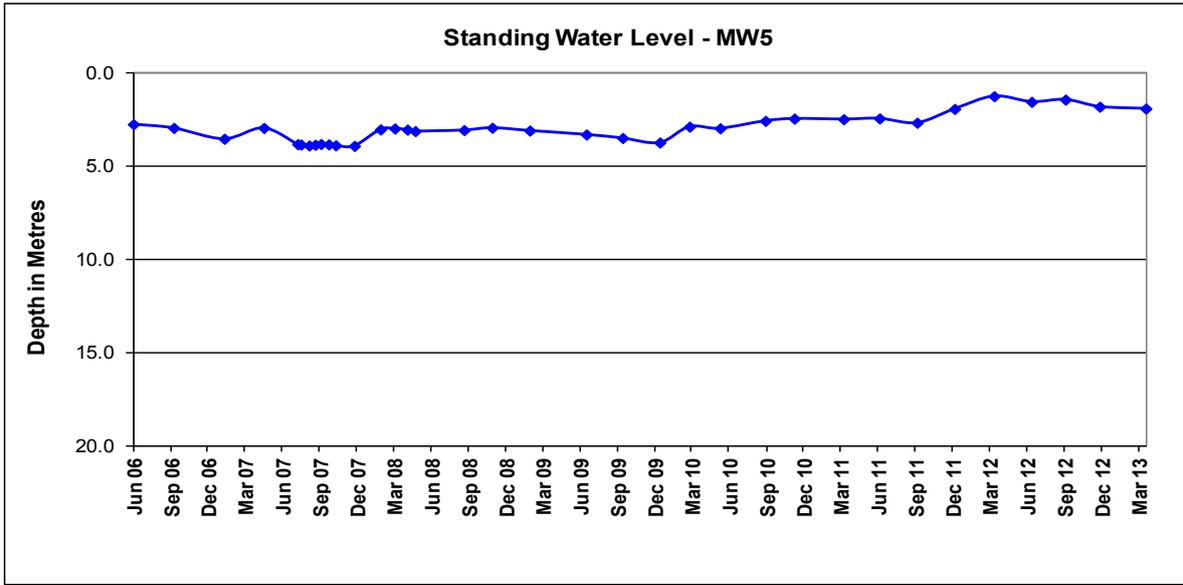
Water Monitoring

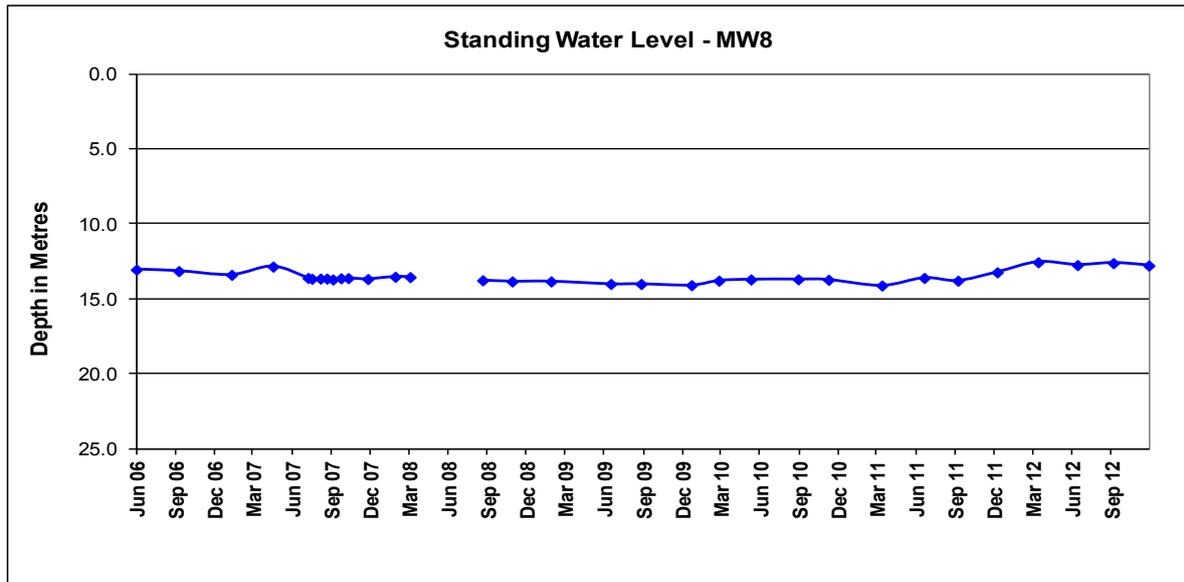
Ground Water

Groundwater monitoring data obtained to date, including the last round of SWL monitoring in March 2013 is provided in the table and graphs below.

Site	Date	SWL (m)	pH	Elect. Conduct
MW1	March 2012	6.9	7.44	3140
	June 2012	6.53	7.37	3730
	September 2012	6.41	7.8	3570
	November 2012	6.25	7.54	3140
	March 2013	6.15	7.52	3180
MW2	March 2012	2.38	7.06	912
	June 2012	3.13	7.02	1320
	September 2012	3.11	7.47	1310
	November 2012	3.42	7.29	905
	March 2013	2.82	7.39	670
MW4	March 2012	9.36	7.6	2580
	June 2012	9.22	7.52	3850
	September 2012	9.11	7.98	3770
	November 2012	8.94	7.74	3440
	March 2012	8.92	7.53	3420
MW5	March 2012	1.28	7.52	1110
	June 2012	1.58	7.81	977
	September 2012	1.46	7.92	2120
	November 2012	1.84	7.65	2650
	March 2013	1.94	7.54	1430
MW6	March 12	5.74	7.49	1840
	June 12	5.87	7.45	2040
	September 12	5.58	8.08	1990
	November 12	5.55	7.6	1817
	March 2013	5.75	7.46	343
MW7	March 12	95.05	7.25	2460
	June 12	97.7	7.6	2900
	September 12	98.95	7.93	2840
	November 12	101.99	No Sample	No Sample
	March 2013	102.49	No Sample	No Sample
MW8	March 12	12.57	Casing blocked	Casing blocked
	June 12	12.76	Casing blocked	Casing blocked
	September 12	12.63	Casing blocked	Casing blocked
	November 12	12.79	Casing blocked	Casing blocked
	March 2013	12.68	Casing blocked	Casing blocked







All monitoring locations have remained relatively consistent over the past three months. The SWL at MW7, which is located at the north-eastern corner of the mine lease on mine-owned land, continues to drop more prominently as a result of depressurisation from a reduction in groundwater pressures due to mining both the Tarrawonga and Boggabri Coal pits.

Surface Water

Routine surface water monitoring was conducted during March 2013. Total suspended solid levels were slightly elevated as sampling was conducted after recent rain events. Heavy rainfall in late February and early March (78.2mm) caused wet weather discharge from SB23B. Samples were taken with an elevated TSS result received but as the amount of rain surpassed the 5 day 90%ile rainfall depth for Gunnedah (38.4mm), this discharge was not recorded as an exceedance.

Samples were taken at set sample points for local creeks, both upstream and downstream following this rain event.

Since early March, rainfall has been minimal and therefore water stored in site dams has been pumped to larger and more accessible dams with fill points to be used in dust suppression. This ensures adequate capacity on site for future rain events.

Rehabilitation

Rehabilitation was completed for FY13 on both the Northern and Southern emplacements. Both areas were seeded with 540 tubestock planted on the Southern emplacement.



Figure 6 - Northern emplacement indicating completion of the rock lined drain and latest topsoiling and seeded areas.



Figure 7 - Northern emplacement indicating completion of the rock lined drain and contour banks.

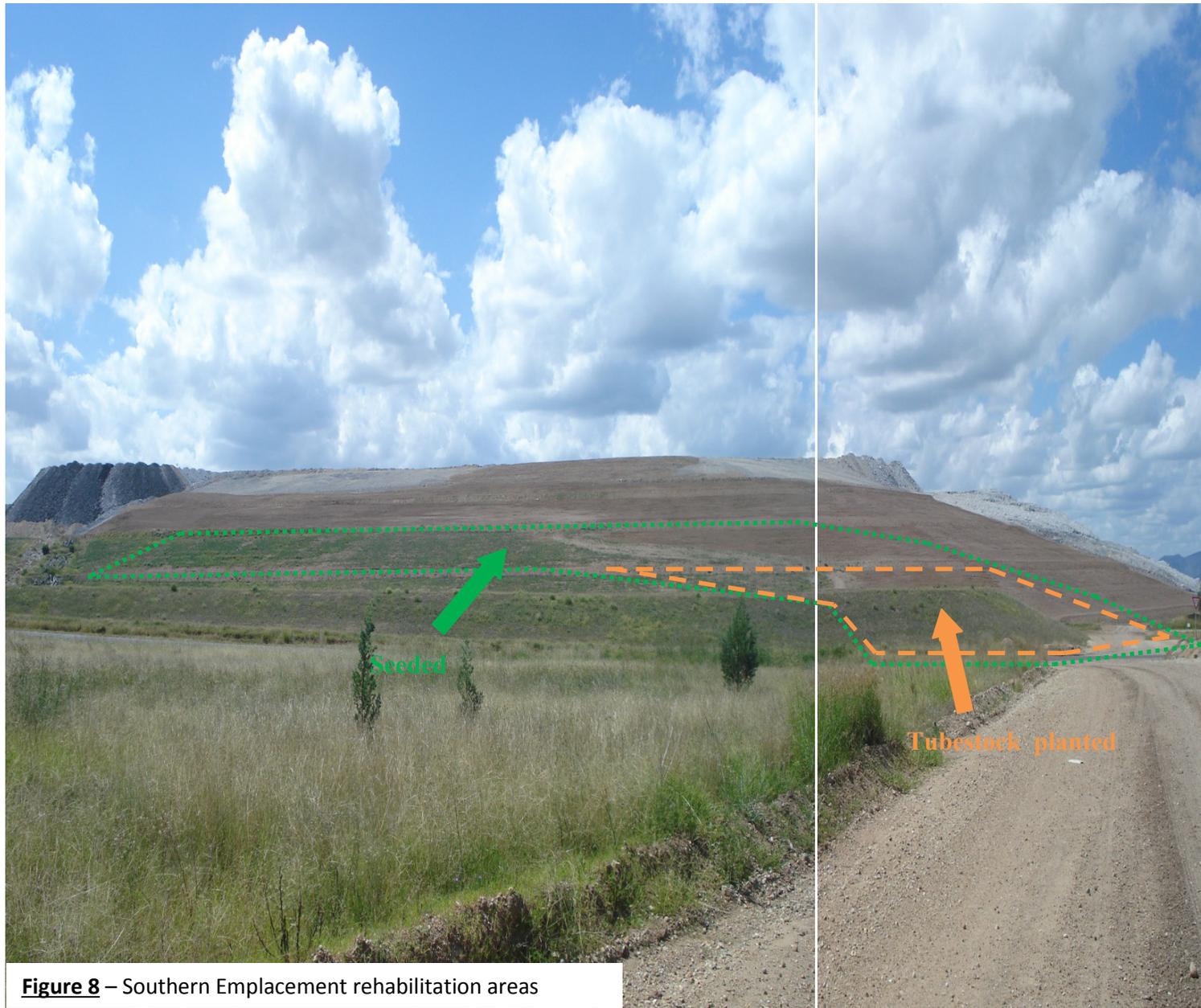


Figure 8 – Southern Emplacement rehabilitation areas

Complaints

Since the last meeting, there have been 4 complaints (two in February, zero in March and two in April), as outlined on the following pages.

Method	Date/Time of Complaint	Nature of Complaint	Investigation	Action Taken / Follow-up
EPA on behalf of FLAC. Downer EDI complaint to Operations manager	13/02/2013 1:32pm	Complaint relating to blast fume and dust, as well as rotten egg smell and metallic taste drifting across Downer EDI workshop and protester camp in Leard state forest	Environmental Manager requested details from site in relation to the blast, including timing weather conditions, and in particular wind speed and direction. The Environmental Officer and Operations Manager had reviewed the weather forecast for the next 7 days which indicated conditions for blasting on Wednesday 13/02 were suitable for the blast. Wind speed and direction was monitored throughout the morning, and at the time of the blast, wind was from the east-south-east at 3.9m/s which is equivalent to a moderate breeze but still well under the >6m/s wind speed cut off. The blast video was reviewed and indicated no visible blast fume and photographs and forecast conditions supplied in response to the EPA.	Orica ICAM investigation complete. Email advice issued to EPA outlining blast photographs and forecast conditions. EPA responded that sufficient evidence had been provided and no further action required.
Email message to Environmental Manager	18/02/2013 4:46pm	Complaint relating to dust drifting across their property from a blast held at 12:00 that day, impacting on their health and lifestyle. Requested that blasting impacts be retained within the boundary of the Tarrawonga mine.	Environmental Manager requested details from site in relation to the blast, including timing, weather conditions, and in particular wind speed and direction. The site Environmental Officer provided details of the blast and weather conditions. The Environmental Officer and Operations Manager had reviewed the weather forecast for the next 7 days which indicated conditions for blasting would deteriorate throughout the week, and that Monday was the most suitable day for the blast. Wind speed and direction was monitored throughout the morning, and at the time of the blast, wind was from the east-south-east at 2.3m/s which is equivalent to a light breeze. With the wind from this direction, any dust plume from the blast would have been carried in north-north-west direction, predominantly to Leard State Forest. The site sentries for the blast confirmed that the dust associated with the blast dispersed in a northerly direction, and not towards the east. This advice was issued to the complainant in an email response.	No further contact undertaken.
Email message to Environmental Manager	22/04/2013 7:00-7:30am	Complaint relating to dust from both Tarrawonga and Boggabri Coal Mines and from the Manilla-Boggabri road as a consequence of excess truck movements	Environmental Manager requested details from site in relation to conditions and provided the following advice: Tarrawonga did not operate on Sunday 21 st April, and only commenced operations from 6:40am on Monday morning. Water carts were active on the Monday morning from 6am prior to equipment starting. It was noted that there was dust trapped in an inversion layer early that morning prior to work commencing, with a significant proportion from adjacent gravel roads. On checking truck movements from Tarrawonga, there were no trucks received at site until 850am that morning for domestic coal, and this truck travelled the Tarrawonga	Advise was issued to the EPA in a email response.

Method	Date/Time of Complaint	Nature of Complaint	Investigation	Action Taken / Follow-up
			<p>haul route. During the day, the site was monitored for dust, with a dust check completed by the Environmental Officer at 225pm that afternoon due to increase in wind speed. The dust check found operations were minimizing dust lift off with no significant individual dust sources from within pit operations.</p> <p>Tarrawonga recognize the issue of temperature inversions impacting on the capacity for dust to disperse. To minimize dust lift off at site start up, the water carts, which are activated in advance of the remaining fleet will remain in pit during the pre-start meetings to ensure adequate dust control is in place, and will catch up with the OCE's later in the shift</p>	
Phone call to Environmental Officer	23/04/13 8:30am	Complainant received by phone relating to dust. Complainant was concerned with the amount of dust around the area from Tarrawonga. He asked if we were still using the full water cart capacity as he believed with recent cut backs, the water carts may have been underused.	At the time of the phone call, the operations manager and environmental officer were inspecting dust levels and discussing measures to reduce dust. Dust at the time was elevated due to a temperature inversion up until 8am. All water carts were in use during the morning from 6am. Equipment was monitored throughout the morning as were the weather conditions. At the start of day shift, water carts will continue to water haul and access roads in the pit 30 mins prior to commence of the shift to limit dust emissions.	Monitor water cart usage and dust emissions from nearby gravel roads between 5 and 9am.

Minutes of the 30th Meeting of the Tarrawonga Coal Mine Community Consultative Committee

Meeting Held: 14th August 2013, 10am

Venue: Tarrawonga Coal Mine, Training Room

At the commencement of the meeting John Turner introduced himself as the new independent chairman for the committee. Danny Young also introduced Anthony Margetts as the new Operations Manager. Matt Sparkes has moved to the Maules Creek Project.

1.0 Present and Apologies

Present: Mr John Turner (JT), Independent Chairman
Mr Tim Muldoon (TM), Community Liaison Officer
Mr Anthony Margetts (AM), Operations Manager
Mrs Julie Heiler (JH), Community Rep
Mrs Jill Johnson (JJ), Environmental Officer
Mr Bob McGregor (BM), Community Rep
Clr Catherine Collyer (CC), Narrabri Shire Rep
Mr Jim Picton (JP), Alternate Community Rep
Mr Danny Young (DY), Environmental Manager
Clr Hans Allgayer (HA), Gunnedah Shire Rep

Apologies: Mr Peter Laird (PL), Community Rep

No Advice: Mr Bart Crosby (BC), Community Rep

2.0 Declaration of Pecuniary or Non-Pecuniary Interests

JH leases "Velyama" from Aston Resources (now Whitehaven) and is in discussions with Whitehaven regarding water issues at her property.

BM property "Tarrawonga" is within the acquisition zone for Tarrawonga operations.

BM retains a commercial lease with Whitehaven for land on which part of the Tarrawonga Haul route is located.

3.0 Previous Minutes

Minutes of the previous meeting were adopted as a true record on the motion of JH and CC.

4.0 Business Arising

- 4.1 JJ advised that the letter had been issued to BM as required by the Project Approval and that she had offered to post another copy if BM was unable to find the original letter.

No further action required.

4.2 BM raised concern about the Blast Management Plan which was discussed at the previous meeting. He said he wasn't happy with the Plan saying neighbours would be notified if fume left site and was travelling in the direction of their property. JJ said that the committee had spoken about this issue at length in the previous meeting but that when asked at that meeting if he had any suggestions as to how the process could be improved BM didn't have any suggestions. JH concurred and said you can't say you're not happy with something but not provide any suggestions for alternative processes. She suggested that those who don't trust Orica should organise a tour through the mine so they can see how blasting works. JP said he sees it every time with the dust and fume travelling over his property and he shouldn't have to put up with it.

JT asked the status of the Blast Management Plan. DY said it is still awaiting review from the Department of Planning and Infrastructure so there is still an opportunity for people to raise any suggestions or concerns they might have. BM said blasting needs re-organising. He said if the wind is blowing towards a particular person's property the blast shouldn't go off. He said he doesn't think ringing people is good enough.

JH asked about the tower at Boggabri Coal in relation to weather monitoring. DY said he understands it is available for Tarrawonga to use however it is more for inversions and as blasting generally occurs around midday inversions are not normally an issue.

CC asked if there had been a blast at 7am that morning because there was a lot of dust at that time. AM said it definitely wasn't a blast but there was a noticeable layer of dust present as a result of start of shift and the presence of an inversion.

BM said blasts should be delayed if the wind is blowing towards his property or JP's property. He said it should be delayed until it is blowing in the other direction.

JP said blasting is better than it used to be and acknowledged that the mine doesn't blast during high winds.

DY said he can't say that the mine won't ever blast if the wind is blowing in the direction of BM's or JP's property but there are systems in place to postpone blasting if the wind is above a certain speed. JP said he had spoken to DY before about blasting in high wind and some have been delayed but occasionally the mine does allow one to go ahead.

JT asked if fume is reportable. DY said under the site's Pollution Incident Response Management Plan (PIRMP) the site is obligated to report fume if it leaves site onto a private property.

JH said there is general chatter that Orica's contract won't be renewed. AM said the mine is looking at LDE and Orica for the new contract and have undertaken a couple of trial shots with LDE. LDE is a smaller company than Orica but they have been around for a while.

AM said Tarrawonga is looking at changing the design and management of blasting. Currently Orica supplies everything (shot design, product, shot firers) so we are looking at in house blast design and shot firers with only the product being supplied from an external company. Whitehaven has an issue with Orica's intellectual property requirements whereby if things go wrong Whitehaven can't get to the bottom of the issue quickly.

JH asked if Tarrawonga already has qualified blast design personnel and shot firers. AM said there's a shot firer onsite today and Whitehaven is looking at picking him up.

BM said he is concerned about what Matt Sparkes said at the previous meeting about landholders being contacted if the blast plume is travelling towards their property. BM said it is too late by then and he doesn't want to be near it.

No further action required unless specific suggestions or improvements to the blast management plan are made.

- 4.3 DY provided an update on the LOM project. He said the mine hasn't progressed into the extension areas as yet as the mine is still awaiting DRE to issue the Mining Operations Plan and additional Mining Lease areas. The mine is currently still working within the previously approved areas. He said he is hopeful that approvals will be granted in the next few weeks so that work can begin in the northern area (which has a lower strip ratio). He said internal budget and production targets have the mine operating at 2 million tonnes per annum for at least the next three years. CC asked if the mine will be ramping up to 3 Mtpa and Danny said it is not currently planned in the next three year budget.

Update on LOM project to be provided at next meeting.

- 4.4 TM provided an update on the Manilla Road upgrade. He said Boggabri Coal, Whitehaven, EPA, NSC and DoPI had met and there wasn't really any conclusion out of the meeting. Whitehaven offered the Tarrawonga VPA money for the upgrade if Council considered it urgent, however they decided to wait for the Maules Creek funding. CC interrupted saying she needed to correct TM and that upgrade of that section of road was under the Maules Creek VPA. TM said he hadn't finished yet and that he was going to say it is under the Maules Creek VPA and Tarrawonga has \$1.4 million in its VPA for roads around Tarrawonga. However the money from the Maules Creek VPA isn't available yet as the approval is being challenged in the High Court. He said Maules Creek committed to pursuing a design which has gone through the tender process and is currently being evaluated. The preferred tender is expected to be determined this week with final design to be completed within 10 – 12 weeks.

CC said it would be beneficial in the long run, maybe not for Whitehaven, to have Manilla Road upgraded using Maules Creek VPA funds. She also said she understood that approval had been issued for Maules Creek. TM said it had but it is currently being challenged. JP asked if we had to wait for the court case and TM said he believed we do. JT said he got the impression from the Maules Creek CCC meeting that everything was on hold. JH asked why the Tarrawonga VPA funds can't be used. CC said it doesn't work like that because then the Council loses money that could be used elsewhere. DY said he understands the discussion is with Council. CC said she has put her point of view forward but there hasn't been any progress. There is a workshop in September on these issues.

JH asked if the road would be sealed or upgraded. CC said that hasn't been discussed. JH said bitumen requires more maintenance.

Manilla Road upgrade update to be provided at next meeting.

- 4.5 In relation to the committee's suggestion for an offsite camera, CC said she'd had a conversation with Steve O'Donoghue who suggested the best way to progress it is to make it a CCC agenda item. It could be looked at as an overall method to be attached to the mining precinct for dust management in conjunction with monitoring. He said the EPA isn't going to fund it so it needs to be mine based. He

believes the camera at Tarrawonga has been a useful tool. CC said you can see dust from the mines more clearly from offsite and she would like Boggabri Coal and Tarrawonga to talk about it before the next meeting. DY said the mines hadn't considered it as part of the cumulative impact management plans being developed at the moment but it could be looked into. JT said privacy issues need to be considered. This was also raised at the Boggabri Coal CCC meeting.

Whitehaven and Boggabri Coal to discuss as part of cumulative impact management plan development.

5.0 General Business

5.1 Mine Progress Report

CC asked where AM had come from. He said more recently Mount Arthur Coal but prior to that he's worked in places all over Australia.

AM provided the mine progress report as follows:

- Last month coal exceeded budget (211,000 tonnes compared to 200,000 budget)
- Higher rate of coal production in the first half the financial year to meet Whitehaven's overall budget.
- Overburden moved during last month totalled 1.48 million BCM.
- 6 blasts in July

JH asked about staffing levels and whether any additional people had been hired. AM said no additional people had been hired. CC said she heard a rumour 30 people had been hired. AM said that isn't correct.

5.2 Environmental Monitoring Report

DY presented the environmental monitoring results which are attached in the Environmental Monitoring Report.

The noise monitor is now at the Laird property to provide an overall indication of noise at non-project related residents and will remain there for a few months for validation of the noise model.

DY said the Tarrawonga AEMR is soon to be published. The AEMR normally contains the noise validation but there have been issues getting the information from the consultant so it will be issued to EPA and DoPI separately once received.

The OCE's have received training on the real time noise monitoring system including SMS alerts when noise is reaching criteria, the real time audio function to help assess what is contributing to the noise level and maintaining a log of actions that were undertaken to reduce mine related noise.

CC said she'd had people contact her about the blast mentioned in the Environmental Monitoring Report and that the blast was noted by the community of Boggabri.

DY was asked what blast levels affect structures. He said he believed it was about 140dBA and 30-40mm/s. In any case it is well below the limits at Tarrawonga. He said the concerning part for Tarrawonga is that monitors close to the site are recording no triggers or low results while impacts are being felt further away. JH referred to a study which identifies the difference in blasting impacts if slots are used at the bottom of the blast holes. AM said Tarrawonga doesn't do this.

JP said he thinks the dust levels are too high and it doesn't matter how dusty it gets the monitors always say dust levels are well under the limit.

DY said 6,000 tubestock will be arriving in the next 6 weeks and will be planted on the southern and northern emplacements.

6.0 New Business

- 6.1 CC addressed TM directly in expressing her disappointment at his absence at the Boggabri Business Promotions Association. She said she'd like to see it happen that he attends the meetings. She thinks there needs to be better community interaction from Whitehaven. She said Denis Tarrant from Maules Creek participates. She believes the community shows goodwill to Tarrawonga but goodwill needs to be shown from both sides. She told TM she doesn't expect him to attend every month but at least once a quarter. She thinks it would be very beneficial. TM said he didn't realise he had to be at the next meeting. JH asked if there are minutes and agenda that can be provided to TM so he knows what to expect at the meetings.

CC to provide meeting minutes and agenda to TM.

- 6.2 CC said she thinks any newsletters for Tarrawonga should be issued in the general post for Boggabri. She said there might be good communication in Gunnedah but it needs to involve Boggabri. JJ noted that the newsletters are also on the Whitehaven website. TM acknowledged CC's request but asked where Whitehaven should stop? Should we include the whole region? Because there will always be someone who thinks you didn't include enough people. CC said it's up to other communities to ask for themselves.

Newsletter distribution to be considered when next newsletter issued.

- 6.3 JP said that Boggabri Coal is trying to organise a helicopter shoot of feral pigs. DY said they're an issue everywhere at the moment and Rocglen liaises with the LHPA. He said Whitehaven would look into participating in the aerial shoot.

Whitehaven to liaise with Boggabri Coal re pig shoot.

- 6.4 BM expressed concern about weed control (Noogoora Burr etc). He said the farms that Whitehaven leases should only be leased to people who will live in the house so there's more control over the property. He said mine farms are untidy and devaluing private properties. TM asked BM if the properties he's referring to were untidy before Whitehaven owned them and he agreed that a lot were. TM said weed control is in the licence conditions for a property but it is hard to police. He said that Whitehaven's Field Officer also sprays weeds. JH said there are also issues with control over leased land and made reference to her situation where there are certain things they aren't allowed to do (ie. particular methods of boxthorn control).

Weed control to continue.

- 6.5 BM questioned entry of mine related personnel onto private properties and said he would like notification. AM said he had found out that it was Orica who he was referring to from earlier in the day and they had been spoken to.

BM to be notified prior to mine related personnel accessing his properties.

- 6.6 JH referred to the \$100,000 environmental fund under the Tarrawonga VPAs and that the CCC is to assist in determining how the money is spent. She suggested monitors on the Namoi River further downstream from the current monitors. She said last time the river flooded people were totally unprepared because the current monitors didn't provide enough advice as to where would be flooded.

BM suggested trees to screen the mines and stop the dust.

JJ suggested that the environment fund be added to the agenda to be discussed as a group and the cumulative CCC meeting. The Committee concurred with this approach.

Use of environment fund money to be discussed at next CCC meeting.

7.0 Complaints

Complaints were discussed in the Environment Monitoring Report.

8.0 Next Meeting

The next meeting location, date and time to be advised as it is proposed to be a cumulative meeting with Boggabri Coal and Maules Creek.

Meeting closed at 11:30am.

John Turner - Chair

Tarrawonga Coal Mine Community Consultative Committee Meeting #30

Environmental Monitoring Report May 2013 – July 2013

Noise Monitoring

Noise monitoring was undertaken at the “Tarrawonga” property on the 26th and 27th June and the 1st and 2nd July 2013, with results outlined below. The noise criterion for the mine is 35dB(A) Leq (15 min) for all operating times.

Table 1 TCM Noise Monitoring Results – 26 th /27 th June and 1 st /2 nd July 2013				
Date	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources as dB(A) Leq (15 min)
26 June 2013	9:01am	39	0.5 m/s, NNE	Birds & insects (36), mine noise (35) (TCM est. 34), cattle (26)
26 June 2013	7:39pm	35	1.9 m/s SE	TCM (34)* , plane (29)
26 June 2013	10:05 pm	23	Calm	Traffic (20), cattle (20), TCM inaudible
27 June 2013	1:10pm	34	2.7 m/s S	TCM (32)* , birds & insects (29)
1 July 2013	8:18pm	33	2.8 m/s SSE	TCM *(33)
1 July 2013	11:10 pm	20	1.3 m/s ESE	Cattle (20), TCM inaudible
2 July 2013	9:52am	38	3.5 m/s SE	Birds & insects (37), TCM (30)*
2 July 2013	7:41 pm	37	0.5 m/s SE	Birds & insects (34), mine noise (31) (TCM est. 30), cattle (30)
2 July 2013	10:32 pm	25	Calm	Cattle & frogs (25), TCM inaudible

*TCM = trucks on private haul road plus mine hum

Table 2 TCM Sleep Disturbance Monitoring Results –26 th /27 th June and 1 st /2 nd July 2013			
Location	Time	dB(A),Leq (1 min)	Wind Speed/Direction
Tarrawonga (26/6)	10:05 pm	n/a	Calm
Tarrawonga (1/7)	11:10 pm	n/a	1.3 m/s ESE
Tarrawonga (2/7)	10:32 pm	n/a	Calm

The results indicate that noise emissions from TCM did not exceed the operational noise criterion at any location or time throughout the June/July 2013 monitoring survey(s).

In regards to the sleep disturbance criteria, during the monitoring periods, TCM was inaudible at all times.

The real time noise monitor was relocated to the Laird property in June and will remain at this site for a period of at least 3 months. The alarm system on the noise monitor is operating sufficiently and all alarms are being investigated by the Environmental Officer and OCE’s with actions put in place when required.

Blast Monitoring

Blasting Results

Since the first shot there have been 434 blasts (until the end of July 2013).

A level 2 fume event occurred on the 6th June (blast 433) with fume blowing towards the SSE over Whitehaven owned property. An investigation concluded the primary cause of the fume generation was the product selection which was loaded into the blast holes the weekend prior to the blast. Subsequent rainfall resulted in wet holes which caused the fume to occur. Recommendations from this shot included better planning and use of longer range weather forecasts so that a product (eg Aquacharge clear) better suited to wet holes could be used if wet weather is predicted prior to a blast being fired. All leaseholders downwind were notified as per the Blast Management Plan.

All blasts over the last three months have been compliant with the blast criteria for ground vibration and air blast overpressure. However, complaints and enquires were received regarding two blasts in July, which occurred on the 12/07/13 and 25/07/13.

- Investigation was conducted into reported ground vibration that shook the residence at the “Braymont” property following a blast on the 12/07/13. Blast monitors triggered at “Templemore” and “Tarrowonga” stations on vibration, but were well below exceedance levels (“Templemore”: 1.42mm/s and 101.4dB, “Tarrowonga”: 0.45mm/s and 80.5dB). The investigation concluded that blast effects may have been exacerbated by an initial presplit hole that was not fully contained. This could have caused airblast like effects (without necessarily triggering) a significant distance past the radius of the blast monitors. Environmental factors (overcast day with occasional drizzle/calm wind conditions) would have amplified the effects of the blast. Orica also indicated vibration would not have propagated the distance to the complainant’s property, and that the effects of rattling windows would have been as a consequence of blast overpressure. Key outcomes from the investigation revolved around considering alternate methods where pre-split shots are involved, or delaying presplit shots if weather conditions are indicative of exacerbating blast impacts.
- Investigation was conducted into reported vibration that shook a residence in Laidlaw St Boggabri following a blast on the 25/07/13. Although only one formal complaint was received, numerous enquiries were made in relation to the blast from properties SW of the mine, indicative of more amplified effects of the blast than predicted. Monitoring results were compliant, with the monitor located at the “Tarrowonga” property not triggering. The “Templemore” monitor results were 100.7 dB and 1.4mm/s. Prior to the blast, all pre-check environmental conditions were considered and were indicative of conditions suitable for blasting with wind at 2.6m/s from the south-south-east. It is acknowledged that blasting events at Tarrowonga should not be causing an impact at distances as far as Boggabri, and for this reason the complaint, and several enquiries from this blast is concerning. As a consequence of the concerns raised, recommendations are to limit the amount of large blasts were practicable to reduce potential of unforeseen impacts, and continue to ensure weather conditions are conducive to reducing the potential for adverse effects on far-field neighbours.

Air Quality

Air Quality (Dust Deposition) Results

MONTH	TEMPLEMORE (EB-4)	BOLLOL CREEK STN (EB-5)	AMBARDO (EB-6)	TARRAWONGA (EB-7)	THUIN (EB-8)	PINE GROVE (EB-9)	TARRAWONGA MINE (EB-10)	TARRAWONGA MINE (EB-11)	PINE GROVE (EB-12)	BOLLOL CREEK (EB-13)	TARRAWONGA MINE (EB-14)	TARRAWONGA MINE (EB-15)	JERALONG NORTH (EB 16)
August 2012	3.3	0.3	0.9	0.8	2.8	3.4	10.3	1.1	1.0	3.1	1.3	4.8	0.9
September 2012	0.9	4.4	1.1	1.2	2.8	1.1	5.5	0.8	1.2	1.5	1.1	4.3	1.1
October 2012	1.3	1.2	1.0	0.1	2.9	0.7	4.5	2.5	3.5	3.8	1.1	2.7	1.8
November 2012	2.6	5.3	2.8	2.3	2.1	1.9	4.2	1.1	0.5	0.4	1.9	3.3	2.0
December 2012	1.8	2.1	1.1	0.9	2.8	1.0	29.9	1.4	0.9	4.6	1.1	3.9	1.8
January 2013	2.1	4.2	1.5	0.8	4.2	1.3	9.9	1.7	1.7	3.0	4.6	4.2	9.5
February 2013	-	-	-	-	1.5	-	2.6	0.6	0.8	1.1	1.5	2.2	5.1
March 2013	0.8	4.4	0.2	0.3	1.3	3.1	2.2	0.6	1.1	0.7	0.8	2.4	1.4
April 2013	0.2	0.1	0.5	1.1	1.8	0.6	2.4	1.3	0.9	1.4	2.0	4.9	1.2
May 2013	3.5	3.6	1.1	3.3	4.8	0.9	0.9	1.1	1.3	1.2	2.5	8.9	1.1
June 2013	2.0	26.4	1.1	2.6	3.4	1.3	2.1	0.8	0.6	1.1	1.4	5.0	2.7
July 2013	1.5	0.5	0.5	0.2	3.1	0.5	3.6	0.5	0.4	1.5	0.9	9.5	3.4
ANNUAL AVERAGE	1.8	2.6	1.1	1.2	2.8	1.4	6.5	1.1	1.2	2.0	1.7	4.7	2.7

All monitoring locations remain below the limit of 4g/m²/month with the exception of EB-10 and EB-15. As these monitors are located on mine-owned land, compliance criteria do not apply.

The extremely high result from EB-5 in June was investigated and found to be an anomaly due to contamination of the sample evidenced by other nearby gauges reporting results well below the criteria and therefore, the result was not included in the annual average. The result from EB-5 during July was well below the specified criteria.

PM₁₀ Results

The annual average for PM₁₀ readings at “Templemore” is currently at 21.11µg/m³ (until end of June 2013) and remains well below the annual average limit of 30µg/m³. PM₁₀ levels have remained compliant since the last CCC meeting.

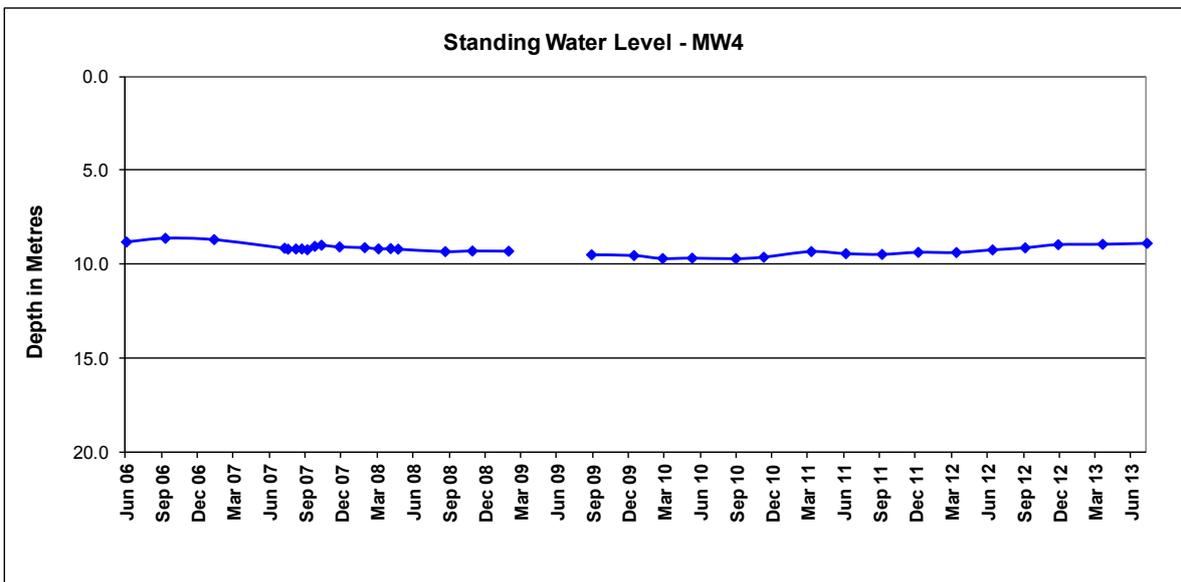
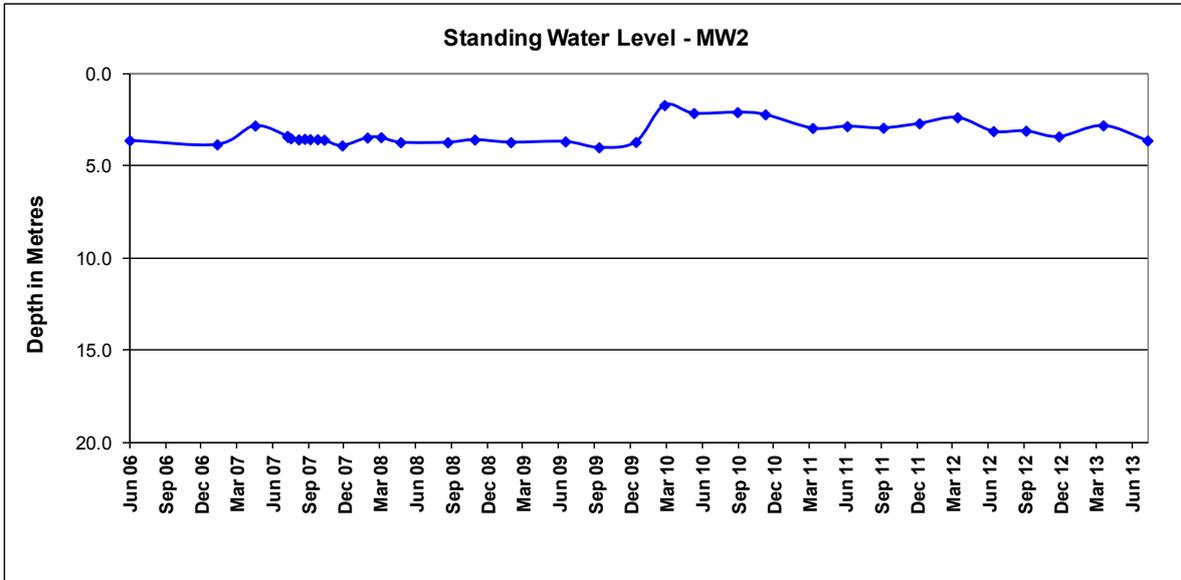
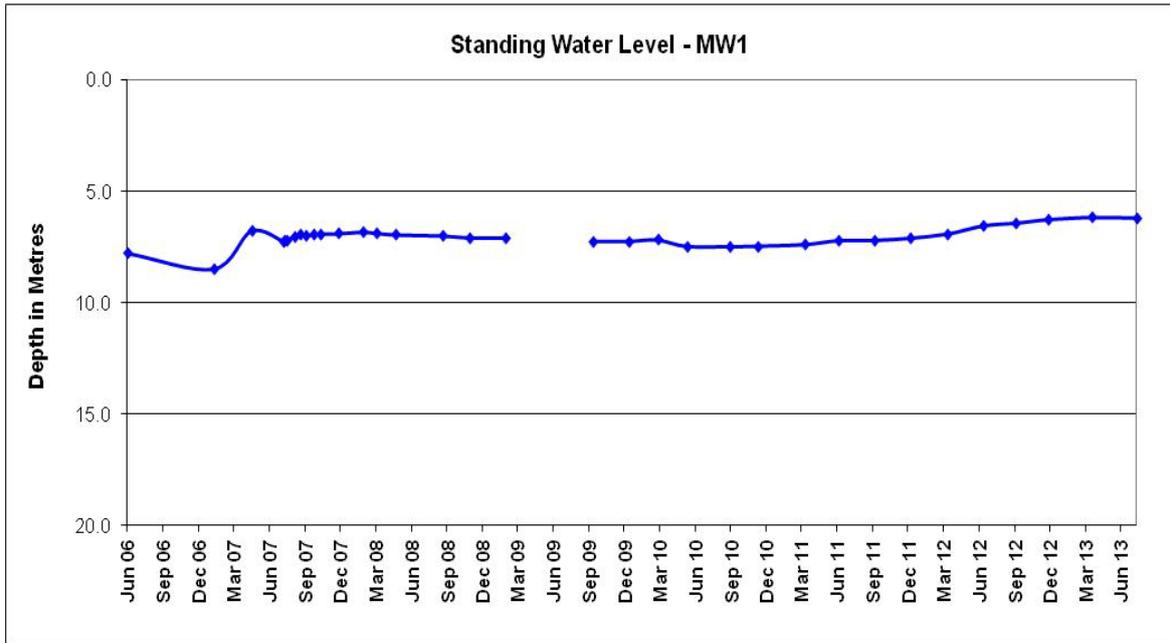
The fixed real time air quality monitor (TEOM) is currently providing daily reports as well as real time air quality results. As at the end of July, the 24hr average PM₁₀ level was recorded at 12.6µg/m³, below the 24hr criterion of 50µg/m³. As with the real time noise monitor, an alarm system has been activated on the TEOM to alert when dust levels reach a pre-determined level based on wind direction from the mine site. This will be monitored closely to verify if dust levels from the site approach compliance limits.

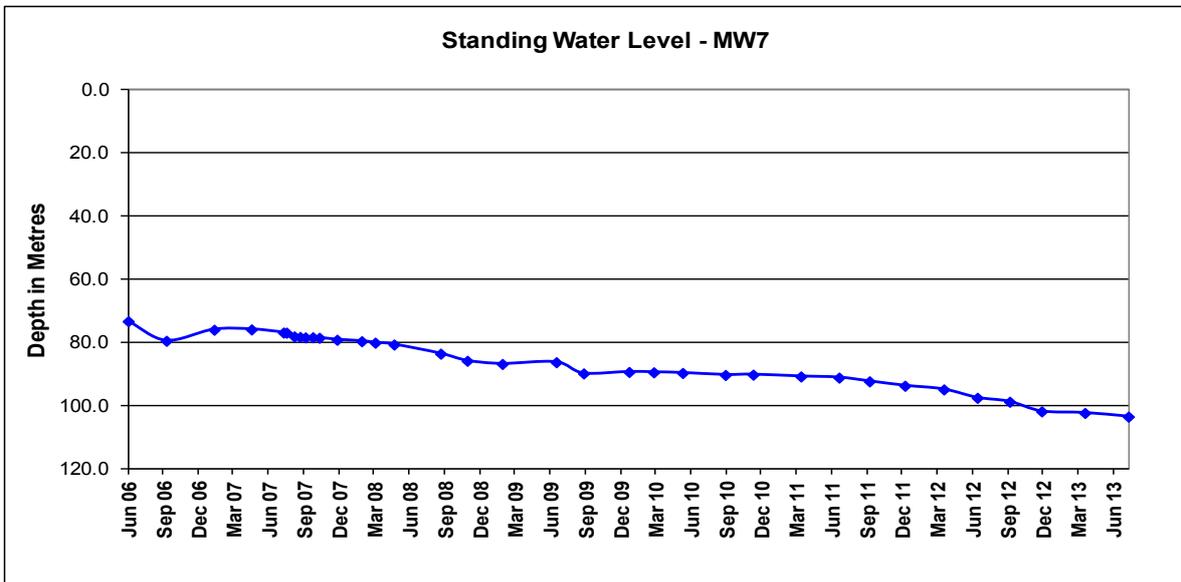
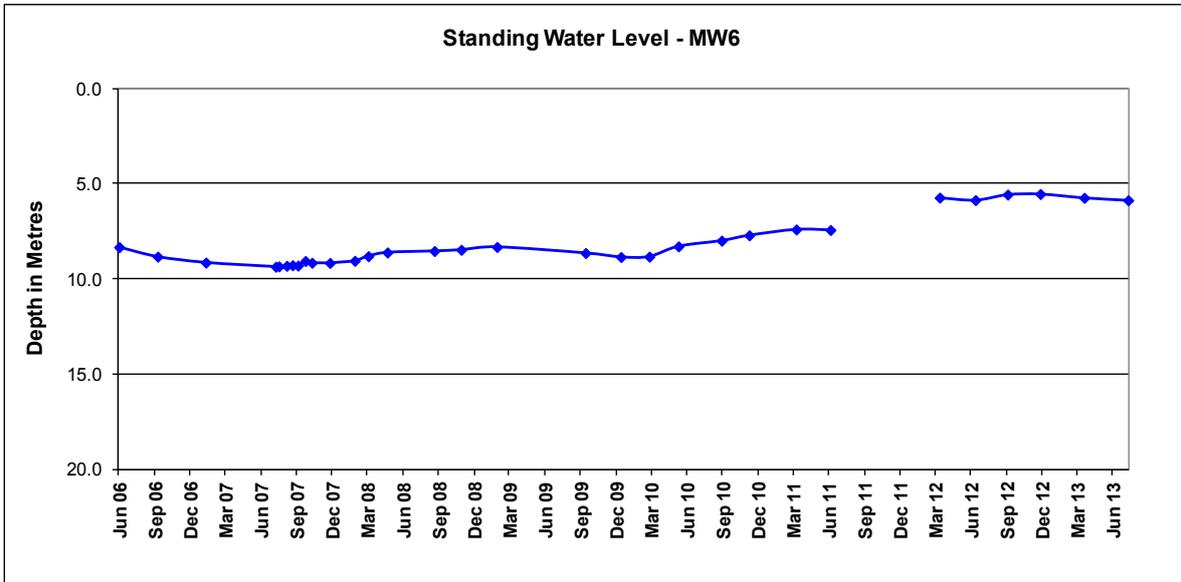
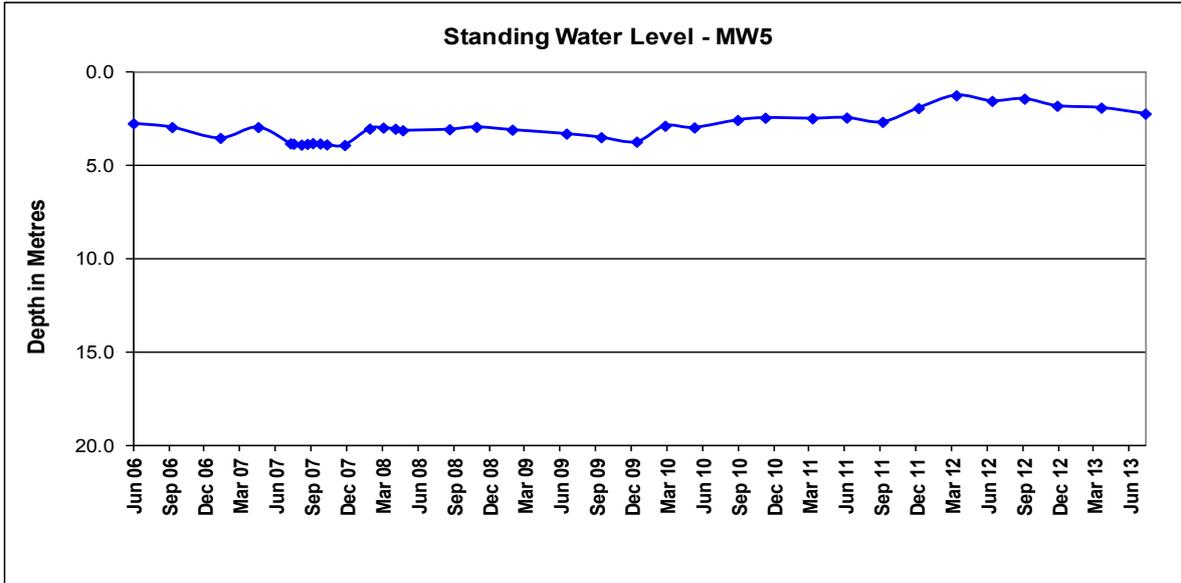
Water Monitoring

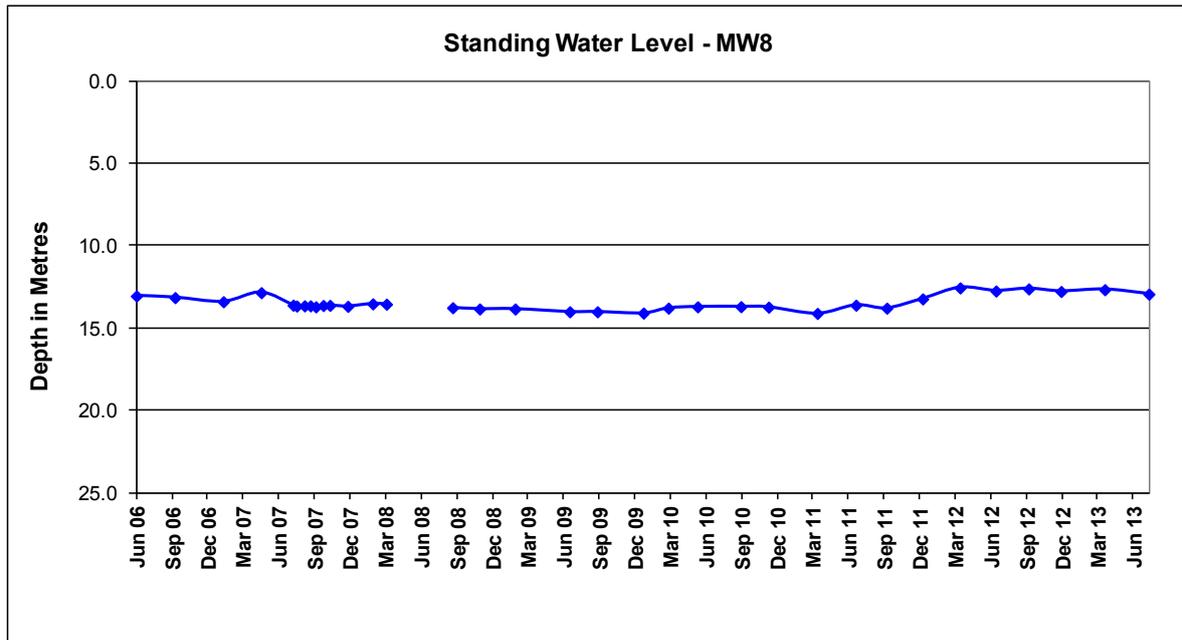
Ground Water

Groundwater monitoring data obtained to date, including the last round of SWL monitoring in July 2013 is provided in the table and graphs below.

Site	Date	SWL (m)	pH	Elect. Conduct
MW1	March 2012	6.9	7.44	3140
	June 2012	6.53	7.37	3730
	September 2012	6.41	7.8	3570
	November 2012	6.25	7.54	3140
	March 2013	6.15	7.52	3180
	July 2013	6.18	7.49	3110
	MW2	March 2012	2.38	7.06
June 2012		3.13	7.02	1320
September 2012		3.11	7.47	1310
November 2012		3.42	7.29	905
March 2013		2.82	7.39	670
July 2013		6.64	7.03	739
MW4		March 2012	9.36	7.6
	June 2012	9.22	7.52	3850
	September 2012	9.11	7.98	3770
	November 2012	8.94	7.74	3440
	March 2012	8.92	7.53	3420
	July 2013	8.87	7.76	3410
	MW5	March 2012	1.28	7.52
June 2012		1.58	7.81	977
September 2012		1.46	7.92	2120
November 2012		1.84	7.65	2650
March 2013		1.94	7.54	1430
July 2013		2.26	7.62	846
MW6		March 2012	5.74	7.49
	June 2012	5.87	7.45	2040
	September 2012	5.58	8.08	1990
	November 2012	5.55	7.6	1817
	March 2013	5.75	7.46	343
	July 2013	5.88	7.62	452
	MW7	March 2012	95.05	7.25
June 2012		97.7	7.6	2900
September 2012		98.95	7.93	2840
November 2012		101.99	No Sample	No Sample
March 2013		102.49	No Sample	No Sample
July 2013		103.65	No Sample	No Sample
MW8		March 2012	12.57	Casing blocked
	June 2012	12.76	Casing blocked	Casing blocked
	September 2012	12.63	Casing blocked	Casing blocked
	November 2012	12.79	Casing blocked	Casing blocked
	March 2013	12.68	Casing blocked	Casing blocked
	July 2013	12.95	Casing blocked	Casing blocked







All monitoring locations have remained relatively consistent over the past three months. The SWL at MW7, which is located at the north-eastern corner of the mine lease on mine-owned land, continues to drop more prominently as a result of depressurisation from a reduction in groundwater pressures due to mining both the Tarrawonga and Boggabri Coal pits.

Surface Water

Routine surface water monitoring was conducted during early August 2013. At the time of writing this report, results were not available and will be reported on in the following environmental report.

During this reporting period, there were no instances of wet weather discharge.

Rehabilitation

Cover crop and seedlings are starting to come through on recently seeded areas on the Southern and Northern Emplacements with the June rainfall. Impacts from Kangaroos grazing continue to cause problems in establishing a cover crop, particularly on the northern rehab, as well as stripping recently planted tubestock.

Re-location of 14 juvenile trees from proposed clearing areas to the Southern Emplacement was conducted in late July. Works began in early August on the next stage of rehabilitation including completion of the southern rock lined waterway and a further 6ha of topsoiling and seeding. Tubestock will also be planted during spring on both the Northern and Southern rehabilitation areas.



Figure 1- Northern Emplacement



Figure 2- Trial of Pilliga Box and Ironbark re-location from a proposed clearing area onto Southern Emplacement



Figure 3 – Southern Emplacement rehabilitation area

Complaints

Since the last meeting, there have been 3 complaints (one in May, zero in June and two in July), as outlined on the following pages.

Method	Date/Time of Complaint	Nature of Complaint	Investigation	Action Taken / Follow-up
EPA on behalf of anonymous complainant	31/05/2013 9:46am	Complaint relating to dust from the mines at 6am on Friday 31 st May.	<p>The Environmental Manager requested advice from the Tarrawonga site Environmental Officer as to conditions at the time of the complaint and relevant mitigation measures being undertaken to reduce dust lift off. The Environmental Officer confirmed that 1,632,000L of water was used on site over the preceding period (6am 30th May to 3am 31st May). On entry to site on the morning of 31st May the Environmental Officer noted slightly elevated dust levels in the general area, and put this down to general mining and road dust being trapped in an inversion layer. Subsequent site based inspections of dust levels was taken throughout the morning with no evidence of individual pieces of mining equipment generating significant dust loads. The Environmental Officer noted that by 10am, upon breakup of the inversion layer, the visible dust had generally dispersed.</p> <p>The Environmental Officer had also noted during the day on 30th May that farming activities on the “Ambardo” property was generating significant dust from farming equipment, with this dust travelling in a generally north-north east direction.</p>	Photographs of the site over the time of the complaint were provided to the EPA as part of the response.
Phone call to Tarrawonga site (spoke with Operations Manager)	12/07/2013 12:50pm	Complaint relating to what the complainant believed to be vibration from the blast earlier in the day. The complainant said he felt the vibration through the ground and it shook the whole house. He noted that he had been noticing blasts more and more lately.	<p>The Operations Manager advised the complainant that the blast wasn’t out of the ordinary in terms of the size and type of blast however the overcast conditions on the day likely contributed to the effects of the blast being experienced at the complainant’s property. The Operations Manager also explained that the complainant would have noticed airblast overpressure rather than ground vibration however the complainant was adamant it was ground vibration. The Operations Manager committed to investigating the blast with the view of improving blasting in the future.</p> <p>The monitor results showed no trigger on noise, however did trigger at Templemore and Tarrawonga Station on vibration, below exceedance levels. (Templemore: 1.42mm/s and 101.4dBL, Tarrawonga: 0.45mm/s and 80.5dBL).</p> <p>Following receipt of the complainant’s concerns, Whitehaven sought specialist advice in relation to this blast from Orica’s vibration specialist, who indicated that the blast effects may have been exacerbated by an initial presplit hole that was not fully contained. This could have caused airblast like effects (without necessarily triggering) a significant distance past the radius of the blast monitors. Environmental factors (low cloud, still day) would have amplified the effects of the blast. Orica also indicated vibration would not have propagated the distance to the complainant’s property, and that the effects of rattling windows would have been as a consequence of blast</p>	Letter issued to the complainant detailing the blast investigation outcomes.

Method	Date/Time of Complaint	Nature of Complaint	Investigation	Action Taken / Follow-up
			<p>overpressure. Alternative options for blasting, relating to presplit shots and possibly the direction of firing, will be considered in consultation with Whitehaven.</p>	
EPA on behalf of anonymous complainant	25/07/2013 12:10pm	<p>Complaint relating to noise and vibration from unspecified mine blast. Caller was working inside 48 Laidlaw Street Boggabri and at 12:10 this afternoon when the house shook, the cornice loudly cracked and the windows rattled. Caller said the effect was not mild. House is a 1960s vintage and has not suffered major damage in previous 50 years. Suspect either Whitehaven Coal or Boggabri Coal mines.</p>	<p>Tarrawonga did undertake a significant blast at 12:08pm on the 25/7/13. The Environmental Manager requested advice from the Tarrawonga site Environmental Officer as to conditions at the time of blast and if monitoring results were complaint. Monitoring results were compliant, (Tarrawonga monitor, SW of the mine and towards alleged impact area did not trigger) and weather condition were clear and were well under the criteria applied in the blast management plan for adverse weather conditions. Whitehaven sought specialist advice from qualified Orica personnel. An investigation stated that with data available from the blast monitoring, geological and weather conditions, no conclusion could be ascertained as to the cause or an explanation formulated in regards to the complaint.</p>	<p>Environmental report formulated and reported to the EPA. No further action required.</p>

Minutes of the Boggabri – Tarrawonga – Maules Creek Community Consultative Committee

Meeting Held: 19th November 2013, 2:30pm

Venue: Boggabri Bowling Club

1.0 Present and Apologies

Present: John Turner (JT), Independent Chairman
Tim Muldoon (TM), Manager Community Relations - Whitehaven
Anthony Margetts (AM), Operations Manager - Tarrawonga
Danny Young (DY), Group Environmental Manager - Whitehaven
Jill Johnson (JJ), Environmental Officer – Whitehaven
Chase Dingle (CD) – Environmental Superintendent – Boggabri Coal
Joe Rennick (JR) – Environmental Coordinator – Boggabri Coal
Ken McLaren (KM) – General Manager – Boggabri Coal
Mark Cornwell (MC) - Expansion Project - Project Manager – Boggabri Coal
Dan Martin (DM) – Environmental Manager – Maules Creek
Brian Cole (BC) – EGM Projects Delivery – Maules Creek
Craig Simmons (CS) – Area Manager Services – Maules Creek
Julie Heiler (JH), Community Representative
Richard Gillham (RG), Community Representative
Jason Davis (JD), Community Representative
Karen Nankarrow (NK), Community Representative
John Bastardo (JB), Community Representative
Marty Brennan (MB), Community Representative
Alistair Todd (AT) – Maules Creek Community Council
Toni Comber (TC) – Red Chief Local Aboriginal Land Council
Clr Catherine Collyer (CC), Narrabri Shire Council rep for Tarrawonga and Boggabri Coal CCC
Lloyd Finlay (LF), Narrabri Shire Council rep for Maules Creek Coal

Apologies: Peter Laird, Community Representative
Clr Hans Allgayer, Gunnedah Shire Council
Jim Picton, Community Representative
Rodney Woolford, Community Representative
Greening Australia
Steve Talbott, Cultural Heritage Groups Representative

2.0 Declaration of Pecuniary or Non-Pecuniary Interests

JH leases “Velyama” from Aston Resources (now Whitehaven) and is in discussions with Whitehaven regarding water issues at her property.

RG – Property falls into the ‘Zone of Affectation’ for Acquisition by Boggabri Coal Mine (BCM).

CC – Leases country owned by BCM

3.0 Introduction to inaugural BTM Complex CCC meeting

JT provided an introduction to the first cumulative meeting and explained briefly how he expected the meeting to be conducted.

4.0 General Business – PowerPoint presentation

- 4.1 DY, CD and BC provided a general status update for the projects (Tarrawonga, Boggabri Coal and Maules Creek, respectively).
- 4.2 DY provided an overview of the development of the following cumulative impacts management plans:

4.2.1 Cumulative Air Quality Management Plan

CC said that the EPA had a workshop at NSC regarding a proposed regional air monitoring network similar to the system that operates in the Upper Hunter. Given the mines are referring to a cumulative monitoring system, CC asked whether the mines had been discussing the system with the EPA. CC said the EPA are looking to implement the system in mid 2014 and that the public will be able to access the information.

DY said the mines have known that the EPA and DoPI have been considering a regional monitoring network for some time but the departments haven't discussed it in detail with the mines to date.

CC said she thinks it would be very good because the network would cover a larger area.

JH asked CC if the EPA system would be separate to the mine monitoring network or combined. CC said she believed it would be one system overseen by the EPA.

DY said the cumulative air monitoring strategy that the mines are proposing is based on the Project Approval requirements for each site and would be run by the mining companies, not the EPA. He said he envisages that the regional monitoring network would be run separately by the EPA.

JR said there had been some general discussions with the EPA about regional monitoring but the mines need to do their own monitoring for site compliance requirements whereas the EPA system would be a broader network that has nothing to do with the compliance requirements of each site.

AT asked if air sampling identified an exceedance would all three sites have to shut down. DY said the monitoring equipment will be able to identify the source of the dust and therefore only the mine, or mines, causing the dust would need to react.

CC said the EPA indicated they would be able to pinpoint which mines were exceeding compliance limits.

JH asked if Werris Creek would be included in the regional monitoring network. CC said she thinks so but can't be sure. She knows that Manilla and the other side of Narrabri would be included.

JH asked how the EPA network would be funded and made reference to the camera at Tarrawonga that the EPA installed and then couldn't fund. CC said that would be discussed between the EPA and the mines.

DY said the draft strategy had been issued to DoPI and is awaiting a response. The mines can't progress the strategy until then.

AT asked if the information from the monitoring network for the mines would be available on a website in real time. DY said the strategy requires provision of information but real time data identifies a number of sources, not just mining specific sources, and therefore needs to be validated. He said the format of provision of information still needs to be decided with the Department.

AT said if there is a dust problem during the evening but not during the day then the elevated result could be averaged over the day and not identified in the validated result. DY said the mines get the information in real time so they can react to the information. AT said but the public won't have access to it. DY said validation of data takes time and is reviewed by accredited and certified professionals.

4.2.2 Cumulative Noise Management Plan

MB asked whether more trucks increase the noise level. DY said more trucks make the overall noise louder but the increase is logarithmic.

DY provided an overview of a noise chart (including low frequency and total noise) the alerting system and live streaming for identifying noise sources.

AT asked if low frequency noise is the same as infrasound (can't be felt or heard within 7km of the noise source but can be heard further away). DY said he wasn't sure of infrasound or if it was the same as low frequency noise.

4.2.3 Cumulative Water Management Plan

DY said the Cumulative Water Management Plan had been through an approval process with SEWPaC.

DM identified on a plan which monitoring bores had been installed and which were due to be installed in the near future.

DY said the information from the cumulative water monitoring network would be used to recalibrate each mine's water model.

TC asked DM to clarify if three monitoring bores had been drilled on "Velyama". DM said only two.

CC asked if all of this proposed monitoring would be able to indicate a reduction in groundwater levels. DM said the monitoring bores target the deeper aquifers and the alluvium. The probes go through coal seams, interburden and alluvium and can pick up changes in each location. CC asked whether Boggabri's town water supply would be affected. DM said the water supply is much further south so impact is highly unlikely. CD said the idea of the monitoring locations closer to the sites is to pick up any localised issues before they extend to any sensitive receivers.

AT asked if the bore at Green Gully was the same depth as the pit. DM said it targeted the last seam in the mining sequence.

DM said all water monitoring information will be available to the public via reports that each mine will produce.

JH asked about sensors on private bores. DM said the network being discussed is a cumulative network and doesn't replace the existing monitoring network that each of the sites have in place.

TM asked how the source of impact can be identified (ie. irrigation or mining). DY said if impact from drawdown is identified a hydrogeologist would be engaged to assess. JR said you also need to consider seasonal changes.

4.2.4 Regional Biodiversity Strategy

No comments were received from the floor.

4.2.5 Regional Aboriginal Heritage Conservation Strategy

TC said that the information DY presented contradicts what BC had said earlier. She said that BC had indicated the program was almost complete but DY is saying it's only just starting. BC said he had indicated the salvage for the Maules Creek site was almost complete and that DY is referring to a cumulative strategy for the three mines. DY said the cumulative strategy is a separate process to each individual projects heritage management requirements.

- 4.3 DY explained that under the Voluntary Planning Agreements with NSC each of the three mines was required to provide \$100,000 funding for environmental projects for the local community. He said use of the funding was to be decided by the CCCs. The funding was raised at the last Tarrawonga CCC meeting with consideration that the joint CCC meeting was a good forum to discuss the options.

JT asked if NSC had any priorities. CC said it hadn't been discussed and that NSC would wait to see what the CCC's suggest.

JH said she is concerned about the changes in flood patterns due to the change in topography and that the landholders aren't getting enough information from the gauge at the Iron Bridge. She said sheep were stranded during the last flood as the information provided was incorrect. She has spoken with someone at the SES who considered that it was a good idea to install additional gauges. The options JH provided were Peter Watson's "Rosewood" property for a volume gauge and Andy Watson's "Nandewar" property for a height gauge.

JH said costs would be \$68,000 for the volume gauge and \$35,000 for the height gauge plus additional costs for NOW to monitor and maintain the gauges. She said there is also an issue with NOW embracing latest technology and that they want to continue to use old technology. NSC think it's a good idea but don't have money to maintain the system. She suggested that the mines could adopt the system and provide the information to BOM and NOW.

JH provided a second option for use of the funding. She said the RFS has a problem with fires in remote areas. If they could see the smoke earlier they could get to the fire quicker. She proposed a remote camera with a 360° view with the following costings:

- Santos tower – which can see the Pilliga and Kaputar regions: \$35,000
- Own 12m high tower - \$25,000.

The Santos tower option is more expensive because they would require riggers from Sydney to install it but it would provide a much better outlook than the 12m

high tower which may have an obscured view from trees. There would also be a \$1500 per year maintenance fee that RFS is willing to fund.

JH also suggested that the cameras can be used to monitor feral animal populations and native wildlife. She said if they got the go ahead it could be running by January.

CC said suggestions need to be accepted by the CCC and presented to NSC.

AT said the Maules Creek Community Council have discussed use of the funds and don't want to take over funding that is already in place (ie. for weed control). He suggested a company that co-ordinates projects for installation of solar panels for property owners. AT mentioned the Manilla project (where community invested in solar power) and the Farming the Sun initiative.

CC asked what sort of projects AT was referring to (ie. local landholders or community things such as schools). AT said people would have to buy their own solar panels but commissioning the consultant would allow for bulk buying power and assist individuals to install the correct solar power systems. AT said that solar power has a net benefit for the environment.

JH said the interest being earned on the funds being held by NSC should be included in the overall fund.

AT noted that in addition to the environmental trust fund a royalty for tonnage will also be provided to NSC.

JH asked DM if the Maules Creek money had been paid yet. DM said it hadn't because they are waiting for the outcome of the court decision.

JJ suggested a timeframe for suggestions. JT said projects should be discussed at the next individual CCC meetings and then a decision should be made shortly thereafter. JT said he will coordinate the process after the next meetings and in the meantime suggestions can be emailed to him. JH said issues are never resolved because the meetings are only held every 3 months. JT said this issue would be resolved.

TC asked how the flood gauge would be compromised by the new bridge. JH said she wasn't sure. RG said he didn't think it would make a difference.

5.0 New Business

- 5.1 JH said that the Iron Bridge will be decommissioned once the new bridge is constructed but it will remain due to its historical significance. She said a meeting will be held in Boggabri to discuss options for the bridge so that it still has a purpose (ie. picnic area) and she thinks the mines should be involved as the mines are one of the reasons a new bridge is required.
- 5.2 AT said there are a lot of locked gates on properties that the mines own and wanted to know what the RFS should do if a fire starts on one of the properties. RG said RFS has the authority to cut the fence or locks. AT suggested RFS locks on all gates with keys in each fire truck. JH said Country Energy tried that previously but there were issues with the locks. TM said Whitehaven has recently included a clause in leases that require the lessee to be part of the RFS or at the least provide contact details to the RFS.
- 5.3 JH said there are fire trails that are now part of offsets and the RFS needs assurance that the trails will remain. She has organised for Russell Heiler to talk

with representatives from the three mines after the meeting and would like the representatives to participate in a meeting at the fire control centre in Narrabri.

- 5.4 AT asked what happens if someone in the community asks a CCC representative a question about one or more of the mines who that question should be referred to. JT said in the first instance the CCC rep should contact the mines directly and if they don't get an acceptable answer to contact him.
- 5.5 LF said there is still a problem with pig chasers and asked that each mine mention the issue again in toolbox talks. He said he knows of one issue of a pig chaser who works at Boggabri Coal. CC also said they had an issue with pig chasers but acknowledged that it's not just people who work at the mines. TM said that the companies do toolbox the issue and will do it again. He also said that if anyone catches people on our land we are happy to prosecute.

6.0 Next Meeting

Date and time for next individual CCC meetings to be advised.

Meeting closed at 4:10pm.

John Turner - Chair

BOGGABRI – TARRAWONGA – MAULES CREEK

JOINT COMMUNITY CONSULTATIVE COMMITTEE MEETING

Tuesday 19th November 2013

BOGGABRI COAL PROJECT

- Open cut operations commenced in 2006
- On strong expansion path to 7mt pa, current production at nearly 5mt
- Expansion has been held up by NSW regulatory approvals in 2011 and 2012
 - Extension approval granted 18th July 2012 by the Planning Assessment Commission
 - Federal Approval granted 1st February 2013 by SEWPaC
- 9 seams targeted in multi seam operation. Resource is mainly thermal coal but has also historically included some PCI and Semi soft coal tonnages
- 100% contractor operation – overseen by Boggabri management
- Downer EDI mining perform all mining operations
- LCR Group perform crushing, coal hauling and train loading operations

BOGGABRI COAL EXPANSION PROJECT

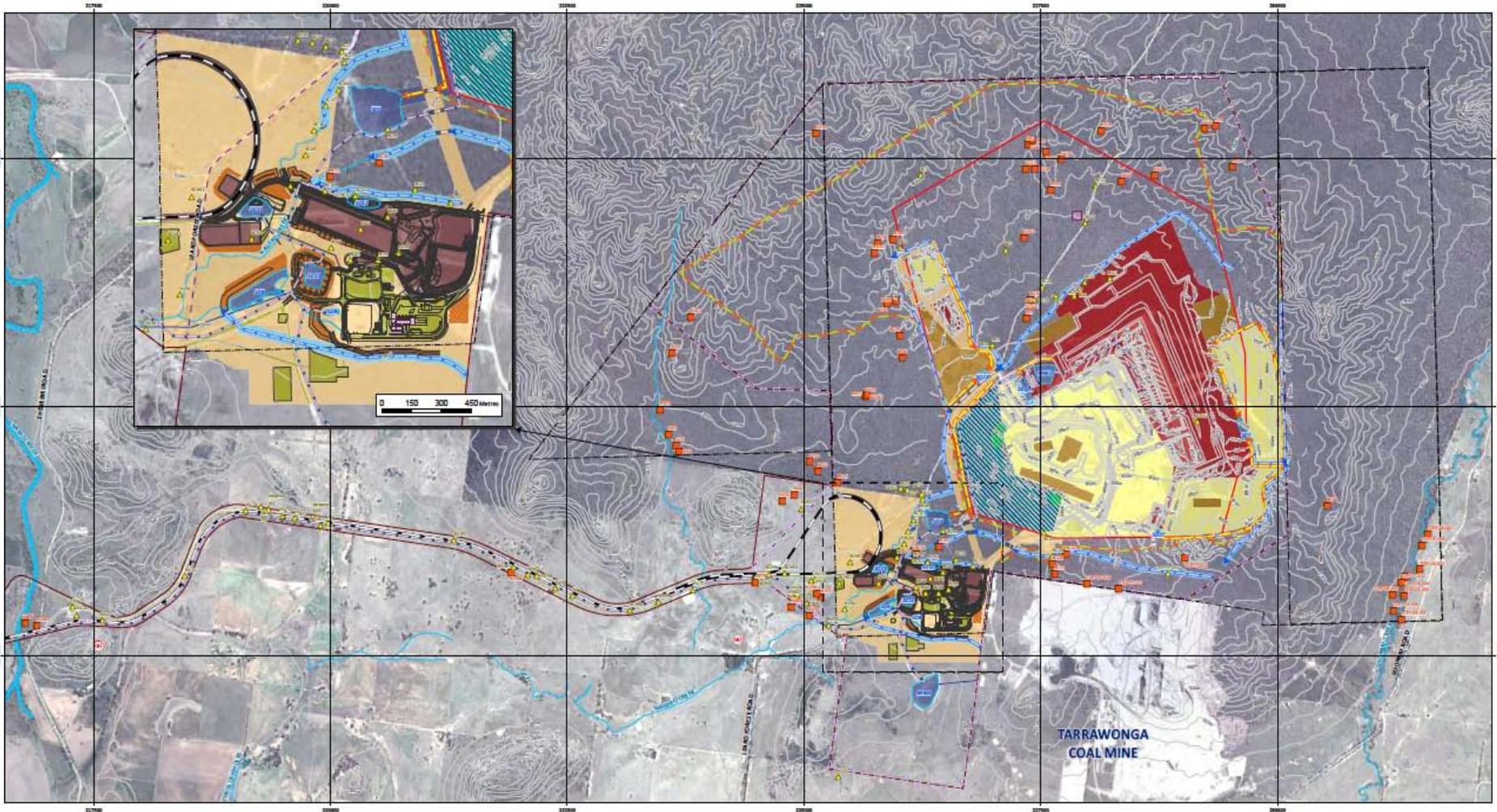
- Current capital investment estimated at \$500m (wash plant, rail loop and load-out, site facilities and stockpiles)
- Infrastructure and rail works has been contracted
- Leighton Contractors will construct the rail spur line and viaduct over the Namoi River
- Thiess Sedgman Joint Venture will construct the additional infrastructure – CHPP & TLO
- UGL will construct the 132 kV line
- Heavy Vehicle Workshop & Downer Office complete



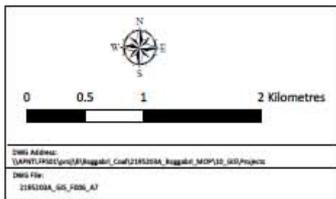
BOGGABRI COAL PROJECT – MINE OPERATIONS PLAN (MOP)

- Revised MOP submitted in November 2013
- MOP period – Nov 2013 to Dec 2014
- Continuation of mining in an Easterly and Northerly direction (Pit C)
- Establishment of the Eastern and Southern Out-of-Pit dumps
- 86 hectares of rehabilitation cumulative by end of MOP period
- Rail spur line & CHPP not operational during this MOP period
- Dump integration with Tarrawonga Mine not proposed during this MOP period





Imagery: Google (2011)
LGA: Narrabri



- | | | | |
|--|--|--|---|
| <p>Heritage Items</p> <ul style="list-style-type: none"> ▲ Cultural heritage item (salvaged) ■ Cultural heritage item (in situ) ⊕ European Heritage Item <p>Year 2 Water Management</p> <ul style="list-style-type: none"> → Clean water drain → Dirty water drain → Pump pipeline ⊕ Culvert □ Water Storage | <p>Year 2 Rehabilitation</p> <ul style="list-style-type: none"> ▨ Ecosystem development (73.20 Ha) ▨ Ecosystem establishment (4.31 Ha) ▨ Short-term rehabilitation (16.07 Ha) <p>Year 2 Primary Domains</p> <ul style="list-style-type: none"> ■ 1 - Overburden emplacement area ■ 2 - Active mining area ■ 3 - Rehabilitation | <ul style="list-style-type: none"> ■ 4 - Clean water management systems ■ 5 - Dirty/contaminated water management systems ■ 6 - Administration buildings, car parks, access roads ■ 7 - Potentially contaminated area ■ 8 - Coal handling area ■ 9 - Haul road, buffer zones and hardstand area ■ 10 - Stockpiled topsoil | <ul style="list-style-type: none"> — Mine Infrastructure — Rail Loop - - - Fence — Existing pipeline — Waterway — Contours (mAHD) □ Mine Lease Boundary □ Project Approval Area □ EIS Boundary □ Federal Approval Limit |
|--|--|--|---|

Mining and Rehabilitation - 2014					
Mine Name	BOONABRI COAL MINE	Status	MINING / Close 68	Scale	1:20,000 @ A1
Mining Title	CL 688	Name	Ken McEwen	Name	Tony Morgan
Issue Holder	BOONABRI COAL PTY LIMITED	Title	General Manager	Title	Director EIS Mining Pty Ltd
Mine Operator	BOONABRI COAL MINE	Signature		Signature	
MOP Commenced	02/10/2013	MOP Completed	03/12/2014	Date	
					38

BOGGABRI MANAGEMENT PLANS

- BLMP, TMP & CHMP approved
- BMP interim approval
- DoPI is currently reviewing the WMP, SWB, SWMP & GMP
- SWMP & GMP will be submitted to SEWPac by EOM

S75W Modifications

1. Processing Tarrawonga Coal at Boggabri Coal's facilities – response to submissions in progress
2. Boggabri Expansion (Kamilaroi Highway Permanent Access, Daiseymede Compound, In-pit re-fuelling, etc.. – Public exhibition period ends 29 November 2013.

Environmental Management Plan	Status
Rehabilitation Management Plan (RMP)	Lodged January 2013, comments received from DP&I in August 2013. Review currently in progress to address SEWPAC requirements.
Biodiversity Management Plan (BMP)	Lodged September 2012, interim approval November 2012.
Blast Management Plan (BLMP)	Lodged January 2013, approved July 2013.
Air Quality and Greenhouse Gas Management Plan (AQGHGMP)	Lodged January 2013, comments received July 2013 from DP&I. Negotiations are currently ongoing with neighbouring mines regarding shared monitoring networks as part of the regional air quality management strategy. Plan will be finalised once agreement is reached on shared monitoring.
Traffic Management Plan (TMP)	Approved October 2013.
Cultural Heritage Management Plan (CHMP)	Lodged November 2012, approved December 2012.
Noise Management Plan (NMP)	Lodged January 2013, comments received from DP&I in March 2013. Negotiations are currently ongoing with neighbouring mines regarding shared monitoring networks as part of the regional noise management strategy. Plan will be finalised once agreement is reached on shared monitoring.
Water Management Plan (WMP)	Lodged January 2013, comments received from DP&I in March 2013. A revised plan was resubmitted to DP&I in October 2013.
Surface Water Management Plan (SWMP)	Lodged January 2013, comments received from DP&I in March 2013. A revised plan was resubmitted to DP&I in October 2013.
Groundwater Management Plan (GMP)	Lodged January 2013, comments received from DP&I in March 2013. A revised plan was resubmitted to DP&I in October 2013.
Site Water Balance (SWB)	Lodged January 2013, comments received from DP&I in March 2013. A revised plan was resubmitted to DP&I in October 2013.
Social Impact Management Plan (SIMP)	Lodged January 2013, awaiting DP&I comment/approval.

TARRAWONGA COAL PROJECT

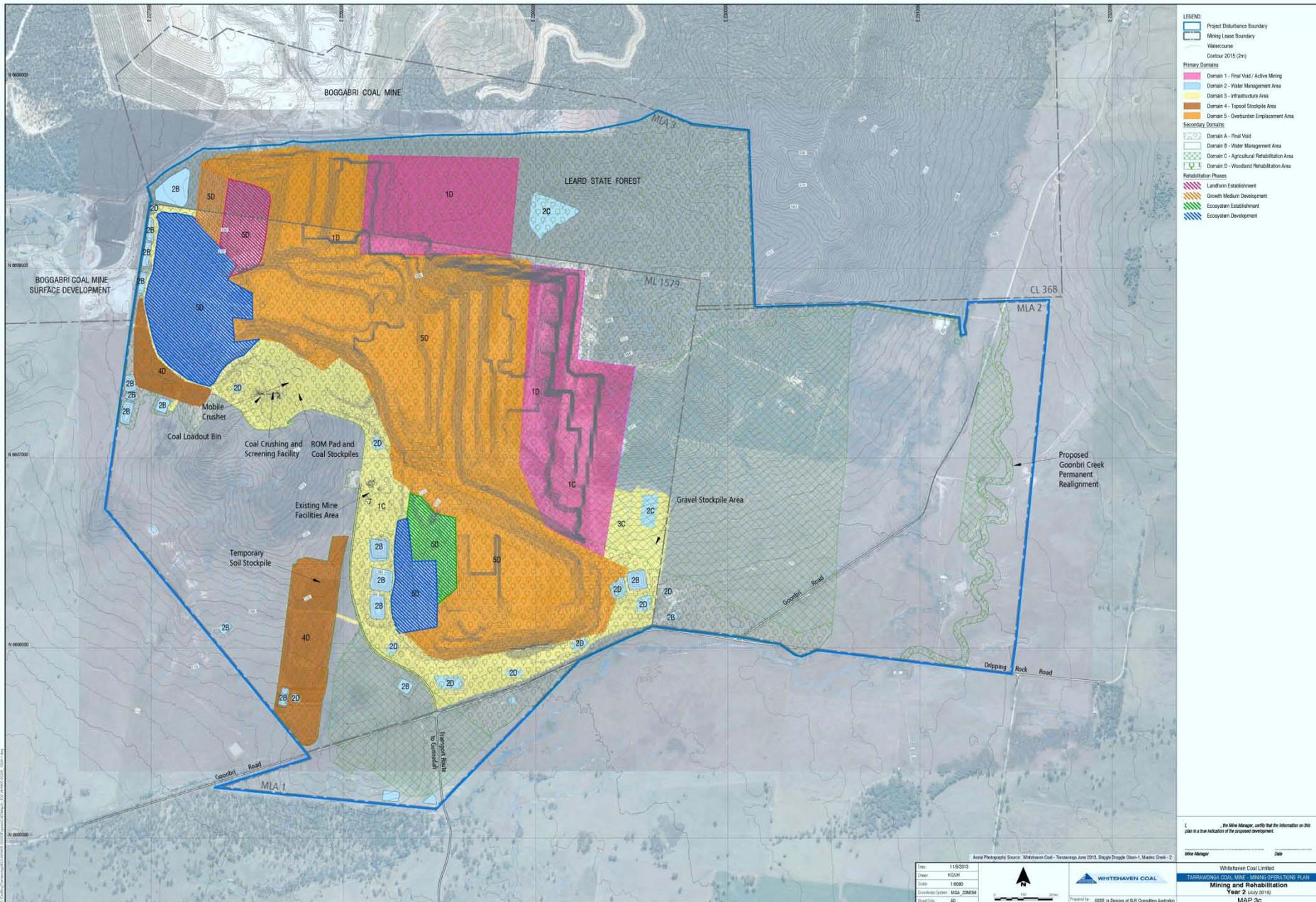
- Operating since 2006 producing up to 2Mtpa ROM coal
- Extension approval granted 22nd January 2013 by the Planning Assessment Commission. Approval allows production of up to 3Mtpa ROM coal and pit extensions to the north and east
- Federal approval (EPBC Act) granted 11th March 2013
- Mining Lease 1693 granted 14th October 2013
- Mining Operations Plan for period 1st November 2013 – 31st October 2015 approved 31st October 2013



Whilst relevant approvals have been obtained for the extension project, production levels at Tarrawonga have remained at 2Mtpa ROM based on current mine and budget planning. It is also not intended to relocate the existing infrastructure area (as approved) over the term of the current Mining Operations Plan period (Nov 15).

Progressive development of the Tarrawonga mine over the next two years will be focussed on continued development to the east, and establishment of the northern extension area.





- LEGEND**
- Project Disturbance Boundary
 - Mining Lease Boundary
 - Watercourse
 - Contour 2015 (2m)
- Primary Domains**
- Domain 1 - Final Void / Active Mining
 - Domain 2 - Water Management Area
 - Domain 3 - Infrastructure Area
 - Domain 4 - Topsoil Stockpile Area
 - Domain 5 - Overburden Emplacement Area
- Secondary Domains**
- Domain A - Final Void
 - Domain B - Water Management Area
 - Domain C - Agricultural Rehabilitation Area
 - Domain D - Woodland Rehabilitation Area
- Rehabilitation Phases**
- Landform Establishment
 - Growth Medium Development
 - Ecosystem Establishment
 - Ecosystem Development

I, the Mine Manager, certify that the information on this plan is a true indication of the proposed development.

Mine Manager: _____ Date: _____

Whitehaven Coal Limited
TARRAVONGA COAL MINE - MINING OPERATIONS PLAN
Mining and Rehabilitation
Year 2 (July 2016)
MAP-3c

Aerial Photography Source: Whitehaven Coal - Terraviva June 2015, Dipping Rock Creek - 1, Madder Creek - 2

Date:	11/02/13
Drawn:	KGJ/H
Scale:	1:5000
Coordinate System:	NSM - ZONE 58
Sheet No.:	40

Prepared by: GSE in Division of B.E.R. Consulting Australia

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TARRAWONGA MANAGEMENT PLANS

- Tarrawonga has submitted the management plans required under the Project Approval to the Department of Planning and Infrastructure for review and approval. These plans were lodged 31st May and comprised:
 - Air Quality and Greenhouse Gas Management Plan
 - Biodiversity Management Plan
 - Blast Management Plan
 - Environmental Management Strategy
 - Heritage Management Plan
 - Noise Management Plan
 - Rehabilitation Management Plan
 - Road Closure Management Plan
 - Road Noise Management Plan
 - Waste Management Plan
 - Water Management Plan
- Tarrawonga is currently awaiting advice from the Department in order to finalise the plans as required.
- Tarrawonga has also recently had an independent review of its Biodiversity offset strategy completed as required under the EPBC approval, which will be lodged with SEWPaC for review.

MAULES CREEK PROJECT HISTORY

- Mining authorities originally granted in the 1970s
- Extensive exploration program was undertaken
- Original consent was granted on 12 June 1990
- Aston purchased the resource from RTCA early 2010
- Whitehaven merged with Aston Resources 18 April 2012 acquiring a share component of Maules Creek Coal Project

Maules Creek Coal Pty Limited sought a contemporary Project Approval under Part 3A of the EP&A Act to allow for the development of a 21 year open cut coal mining operation and associated infrastructure.

- Key infrastructure items include:
- CHPP with capacity of 13 Mtpa ROM coal
- Tailings Processing
- Rail spur, rail loop & load out facility
- Mine Access Road
- Administration, workshop & related facilities
- Water pipeline & pumping station
- Supporting power and communications infrastructure

Cumulative Air Quality Management Plan

- Boggabri, Tarrawonga and Maules Creek have been working on the development of a cumulative Air Quality Management Plan.
- It will document the approach to be taken by the three projects to monitor and manage cumulative air quality impacts.
- It will define the monitoring network to be used to assess performance.
- It will incorporate deposited dust gauges, High Velocity Air Samplers, Real Time (TEOM) PM₁₀ and PM_{2.5} monitors, and E-Samplers.
- It will include predictive forecast meteorology and dust dispersion modelling for short term mine planning purposes.
- It will include a web based platform that will provide access to relevant data for each operation to be able to plan mining activities considerate of forecast conditions.
- An alert system will be in place to alert the complex of dust levels approaching compliance criteria.

The strategy is proposed to be implemented in stages, with the first stage being the install of required monitoring equipment following acceptance of the plan by the DoPI. Currently awaiting comments from DoPI on the draft plan.

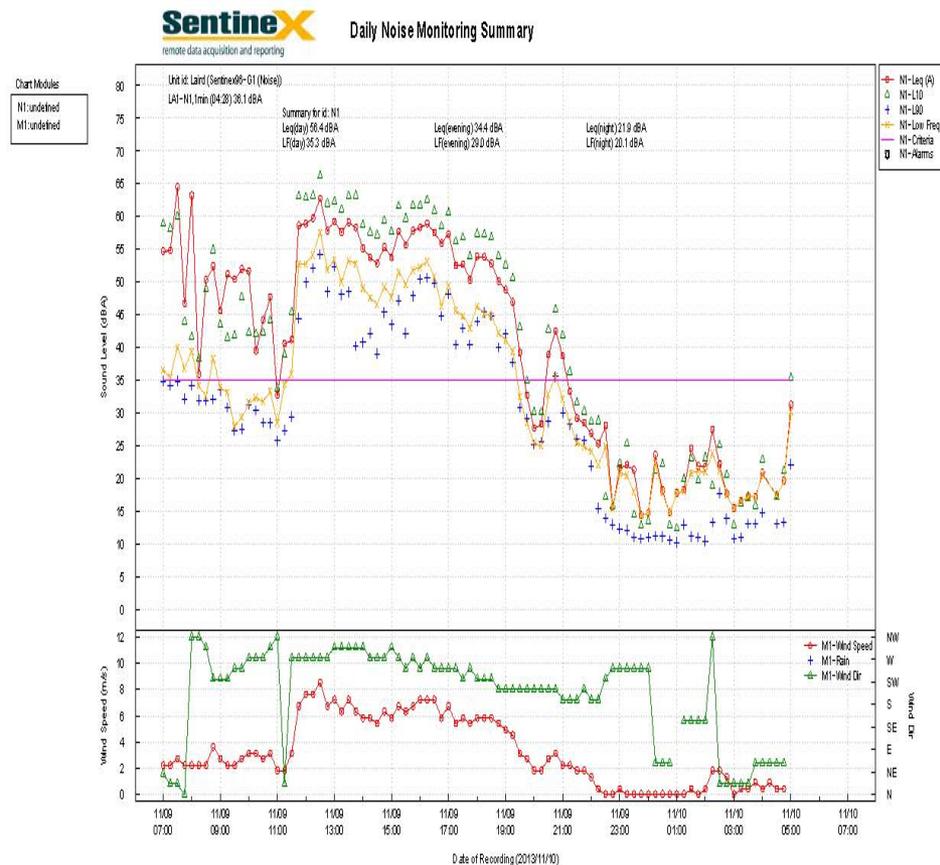


Cumulative Noise Management Plan

- Boggabri, Tarrawonga and Maules Creek have been working on the development of a cumulative Noise Management Plan.
- It will document the approach to be taken by the three projects to monitor and manage cumulative noise impacts.
- It will define the monitoring network to be used to assess performance.
- It will incorporate real time noise monitoring equipment located around the precinct site at locations identified from the noise modelling for each project. It will also maintain attended noise monitoring by acoustic consultants.
- It will include predictive forecasting and inversion monitoring to identify adverse conditions and enable proactive response to mine planning.
- It will include a web based platform that will provide access to relevant data for each operation to be able to plan mining activities considerate of forecast conditions.

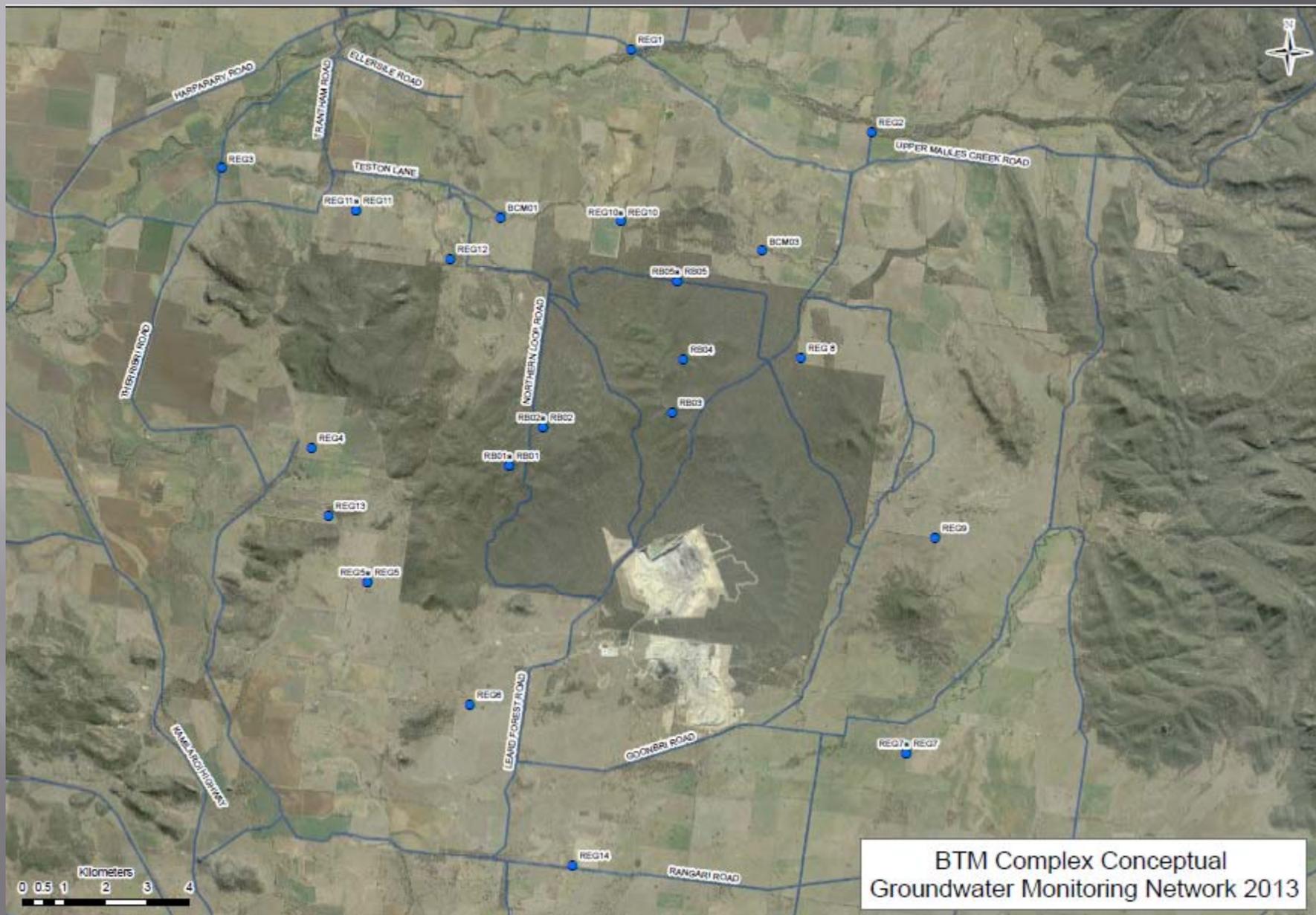
It will have pre-determined trigger levels prior to noise exceedance levels to enable proactive changes at an operation to reduce noise levels.

It will include web access for provision of validated noise data that can be viewed by the general public.



Cumulative Water Management Plan

- Boggabri, Tarrawonga and Maules Creek have been working on the development of a Cumulative Water Management Plan.
- It will document the approach to be taken by the three projects to monitor and manage cumulative water impacts, both surface and groundwater.
- It will define the monitoring network to be used to assess performance.
- NOW Hydrogeologist have been consulted during the planning and design of the groundwater program.
- It will incorporate a number of open groundwater monitoring holes, VWP's surface water locations around the precinct. Results from these locations will be available on each companies website.
- Results received will be used in future modelling and recalibration of existing models.
- The groundwater network of monitoring locations is currently being installed around the precinct. It is predicted that these installations will be completed by the end of December 2013, with data being collected from some locations already.



Regional Biodiversity Strategy

- Boggabri, Tarrawonga and Maules Creek have been working on the development of a Regional Biodiversity Strategy.
- The development of the strategy is to be completed in stages, comprising Stage 1 – Scoping Report, Stage 2 – Strategy Development and Stage 3 – Strategy Review.
- Stage 1 – Scoping Report has been prepared and referred to the DoPI for review and approval. Stage 1 identifies the scope, objectives and the geographic extent of the regional offset strategy, identifies the functions and membership of a working group, provides a work plan, meeting timeframes and funding requirements, as well as a consultation strategy.
- The broad intent of this strategy is to define a regional target area for offset requirements, and develop a coordinated approach to management of offset areas that align with recognised ecological principles.

Regional Aboriginal Heritage Conservation Strategy

- Boggabri, Tarrawonga and Maules Creek are required to prepare a Regional Aboriginal Heritage Conservation Strategy.
- The intent of the strategy is to identify Aboriginal Heritage values of the Biodiversity Offset Strategy Areas, identify areas of high Aboriginal Cultural Heritage significance, identify options to enhance and conserve Aboriginal Heritage values, and consider cumulative impacts and the potential for joint initiatives for the enhancement and conservation of Aboriginal cultural heritage values.
- This strategy is only in preliminary stages of development, with suitably qualified archaeologists and anthropologists approved by the Department of Planning to undertake the works.