

Tarrawonga Coal Mine Community Consultative Committee Meeting #9

Environmental Monitoring Report, February 2008 – May 2008

Noise Monitoring

Noise monitoring was undertaken on Tuesday 29th January as per requirements under the consent. Results from the January monitoring is outlined below:

TCM Noise Monitoring Results 29/30 January 2008 (Day)

Location	Time	dB(A), Leq	Wind Speed	Noise source
N1 Templemore	5:30pm	48.8	1-2 m/s, NW	Birds & Insects (48), TCM(inaudible)
N2 Bollol Creek Station	5:12pm	46.9	1-2 m/s, NW	Birds & Insects (46), TCM(inaudible)
N4 Ambardo	7:06am	61.2	Calm	Birds(61), TCM(36) , Traffic ¹ (30)
Pine Grove (25 Sep)	6:28am	45.7	Calm	Local Traffic (44), Birds(39) TCM (36)

¹ TCM Trucks on the Manila Road section of the Haul route. Criterion on this section is 60 dB(A).

TCM Noise Monitoring Results 29 January 2008 (Evening)

Location	Time	dB(A), Leq	Wind Speed	Noise Source
N1 Templemore	9:20pm	38.0	1-2 m/s, SSW	Insects(36), Wind(35), TCM(inaudible)
N2 Bollol Creek Station	9:40pm	39.2	1-2 m/s, SSW	Insects(39), TCM(inaudible)
N4 Ambardo	8:09pm	53.2	1-2 m/s, SSW	Birds(53), Traffic ¹ (30), TCM(33)

¹ TCM Trucks on the Manila Road section of the Haul route. Criterion on this section is 60 dB(A).

TCM Noise Monitoring Results 25 September 2007 (Night)

Location	Time	dB(A), Leq	Wind Speed	Noise Source
N1 Templemore	1:10am	32.3	<0.5 m/s NW	Insects and Frogs(32), TCM(inaudible)
N2 Bollol Creek Station	1:29am	34.3	<0.5 m/s NW	Insects(34), TCM(inaudible)
N4 Ambardo	12:53am	43.7	Calm	Birds(43), TCM(29)

The above results indicate an exceedance at Pine Grove at 6:28am and an exceedance at Ambardo at 7:06am of 1dB. At the time of monitoring conditions were calm and mild with no cloud cover. The cause of the exceedance was related to truck movements on the haul road and specifically the number of truck movements within the monitoring period. Since the inception of the 6:45am start time from the Canyon site for the haul trucks, there has been a concentrated number of truck movements at the start of haulage operations, thereby contributing to additional noise levels. These noise levels will continue to be monitored and in the event that exceedances continue to occur, consideration will be given to modifying haulage commencement protocols to address this noise impact.

Additional noise monitoring was undertaken on the 26th and 27th March 2008, the results of which are presented below.

TCM Noise Monitoring Results 26/27 March 2008 (Day)

Location	Time	dB(A), Leq	Wind Speed	Noise source
N2 Bollol Creek Station	11:35am	41.5	Calm	Birds & Insects (42), TCM(<20)
N2 Tarrawonga	11:58am	38.1	Calm	Birds & Insects (38), TCM(inaudible)
N4 Ambardo (27 Mar)	7:30am	46.7	<0.5m/s, SE	Birds(46), TCM(28)
Pine Grove (27 Mar)	7:10am	53.7	<0.5m/s, SE	Birds (54), TCM(34), Traffic1 (<30)

1 TCM Trucks on the Manilla Road section of the Haul route. Criterion on this section is 60 dB(A).

TCM Noise Monitoring Results 26 March 2008 (Evening)

Location	Time	dB(A), Leq	Wind Speed	Noise Source
N2 Bollol Creek	7:02pm	33.8	1.5 m/s, NW	Birds & Insects(44), TCM(<20)
N2 Tarrawonga	6:40pm	35.1	1.5 m/s, NW	Birds & Insects(35), TCM(barely audible)
N4 Ambardo	6:10pm	41.9	1.5 m/s, NW	Birds(41), TCM(34)

TCM Noise Monitoring Results 26/27 March 2008 (Night)

Location	Time	dB(A), Leq	Wind Speed	Noise Source
N2 Bollol Creek	12:45am	30.1	<1m/s SSW	Birds and Insects(30), TCM(<20)
N3 Tarrawonga	1:05am	29.8	<1m/s SSW	Birds and Insects(30), TCM(inaudible)
N4 Ambardo (26/3)	11:47pm	36.8	<1m/s SSW	Birds and Insects(37), TCM(inaudible)

The above results indicate TCM was in compliance with consent criteria throughout the monitoring events in March 2008.

Blast Monitoring

Blasting Results

Since the first shot there have been 92 blasts.

All blasts during this report period have been compliant within the limits of 115dB_L and 5mm/s.

To date, the highest overpressure recorded remains at 117.0 dB_L recorded at "Bollol Creek Station" on the 5th July 2007. The highest ground vibration recorded is 1.32 mm/s recorded at "Bollol Creek Station" on the 25th January 2008.

Air Quality

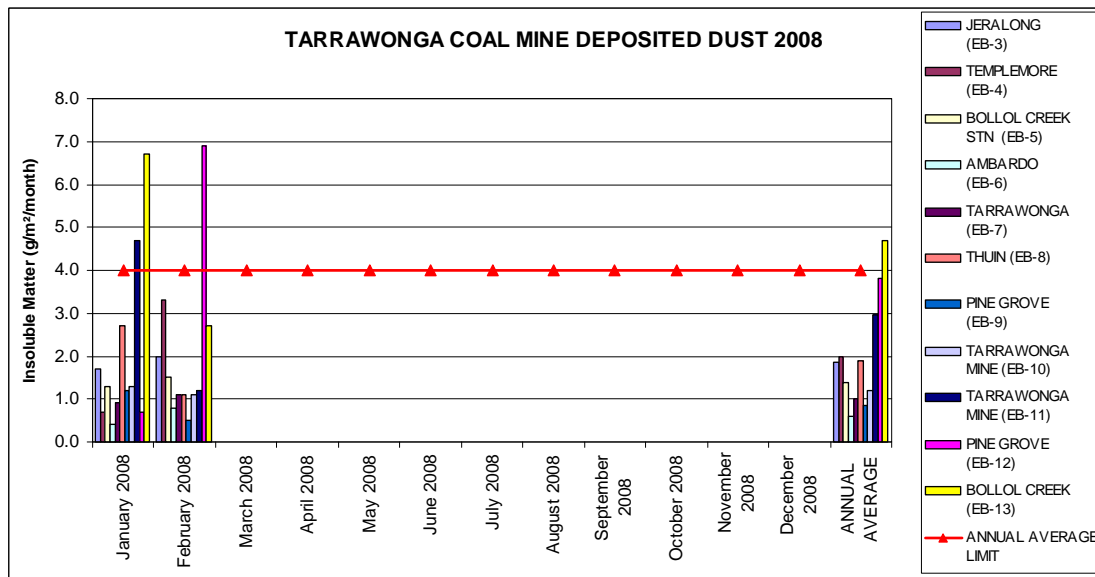
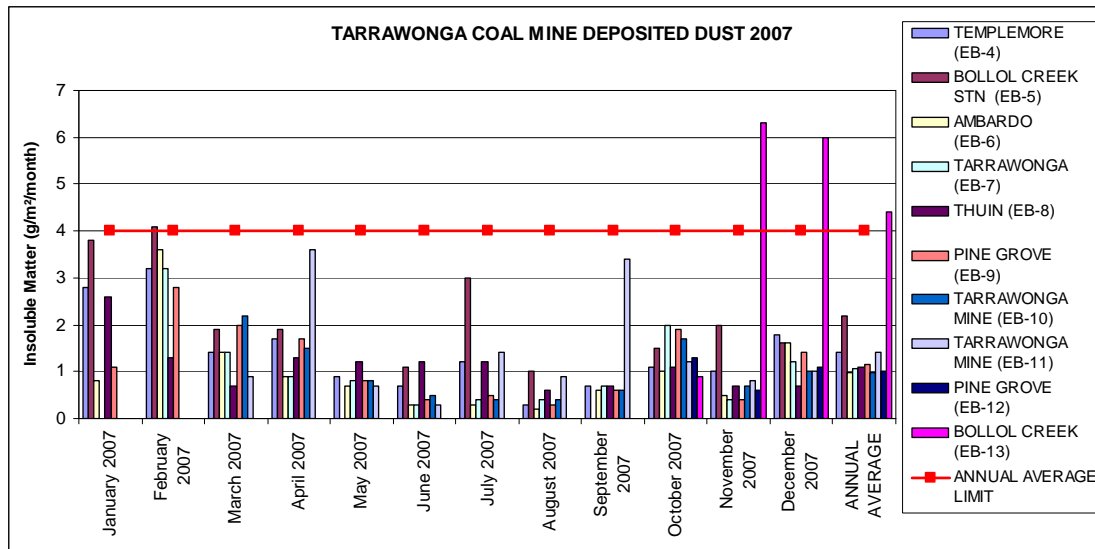
PM10 Results

The annual average for PM10 readings is currently at 18.6ug/m³, which is well below the annual average limit of 30ug/m³.

The highest 24hr reading remains at 49ug/m³ which was recorded on the 5th May 2007, which remained below the 24hr limit of 50ug/m³

Air Quality (Dust Deposition) Results

Month	EB3 Jeralong	EB4 Templemore	EB5 Bollol Creek	EB6 Ambardo	EB7 Tarrowonga	EB8 Thuin	EB9 Pine Grove	EB10 Tarrowonga	EB11 Tarrowonga	EB12 Pine Grove	EB13 Bollol Creek
February 2007	2.2	3.2	4.1	3.6	3.2	1.3	2.8				
March 2007	5.1	1.4	1.9	1.4	1.4	0.7	2.0	2.2	0.9		
April 2007	2.0	1.7	1.9	0.9	0.9	1.3	1.7	1.5	3.6		
May 2007	2.4	0.9		0.7	0.8	1.2	0.8	0.8	0.7		
June 2007	0.6	0.7	1.1	0.3	0.3	1.2	0.4	0.5	0.3		
July 2007	2.0	1.2	3.0	0.3	0.4	1.2	0.5	0.4	1.4		
August 2007	0.6	0.3	1.0	0.2	0.4	0.6	0.3	0.4	0.9		
September 2007	2.1	0.7		0.6	0.7	0.7	0.6	0.6	3.4		
October 2007	1.5	1.1	1.5	1.0	2.0	1.1	1.9	1.7	1.2	1.3	0.9
November 2007	1.9	1.0	2.0	0.5	0.4	0.7	0.4	0.7	0.8	0.6	6.3
December 2007	1.5	1.8	1.6	1.6	1.2	0.7	1.4	1.0	1.0	1.1	6.0
January 2008	1.7	0.7	1.3	0.4	0.9	2.7	1.2	1.3	4.7	0.7	6.7
February 2008	2.0	3.3	1.5	0.8	1.1	1.1	0.5	1.1	1.2	6.9	2.7
Average	2.0	1.4	1.9	0.9	1.1	1.1	1.1	1.0	1.7	2.1	4.5



The deposited dust levels have remained relatively consistent over the last 12 months. All monitors with 12 months of data remain will within the 4mg/m2/month consent limit. The recently established EB-13 at Bollo Creek Station is the only monitor which is exhibiting signs of significant dust impact. This will continue to be monitored closely in conjunction with ongoing dust control measures to ensure dust levels are contained within the consent criterion.

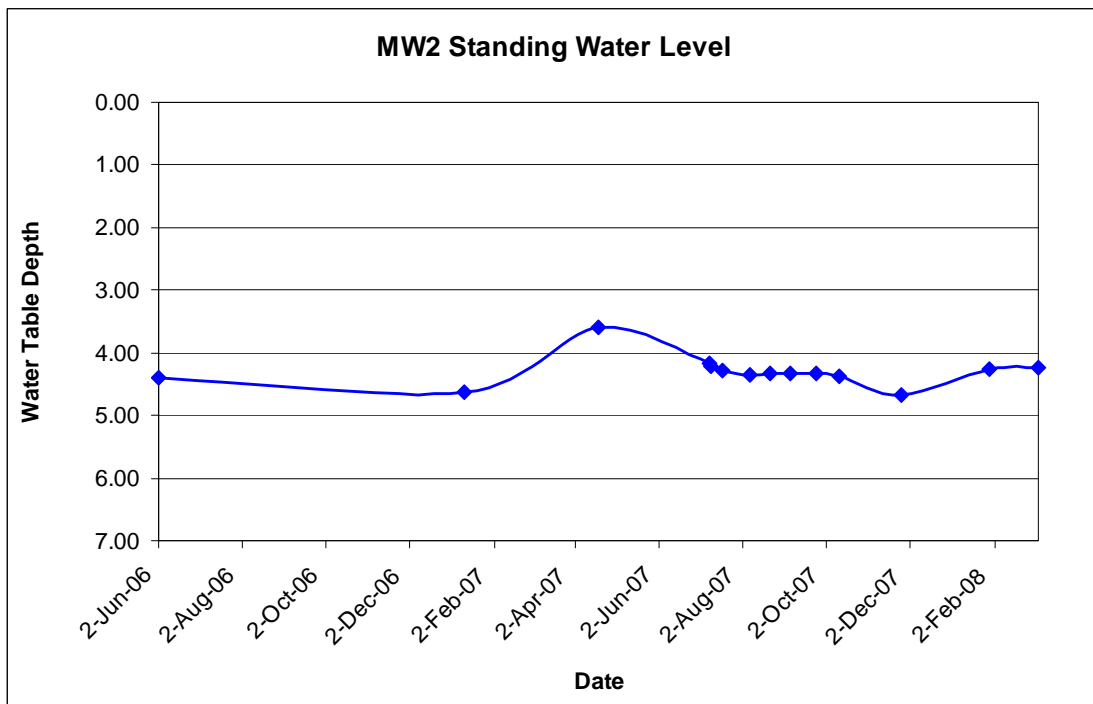
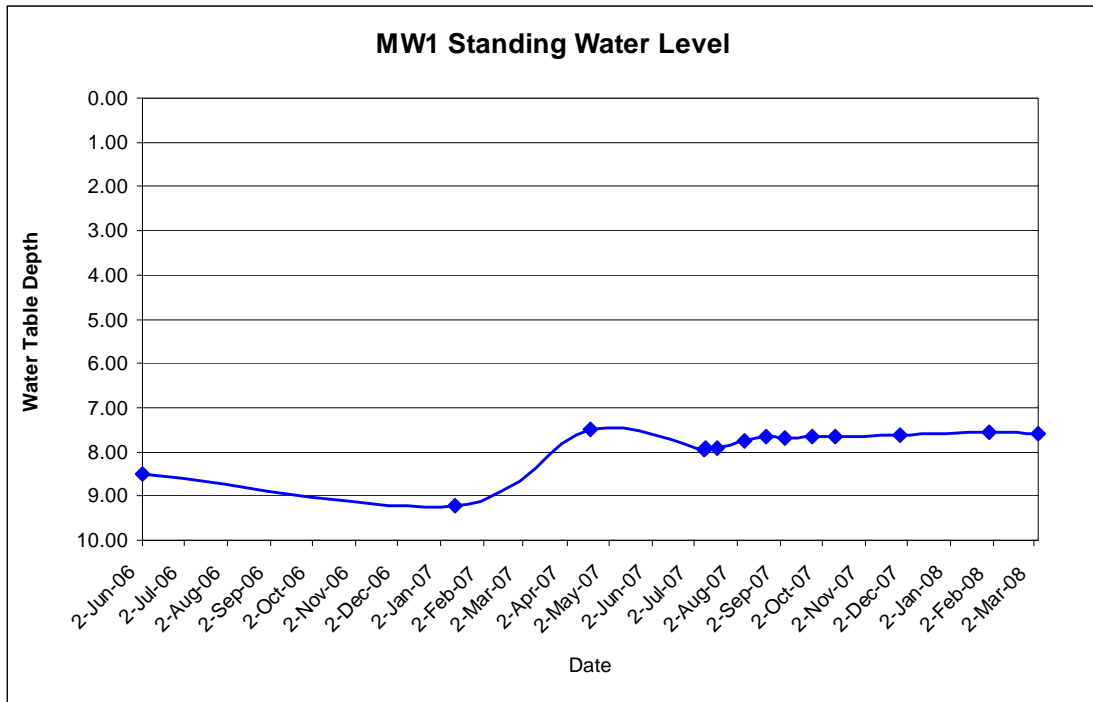
Water Monitoring

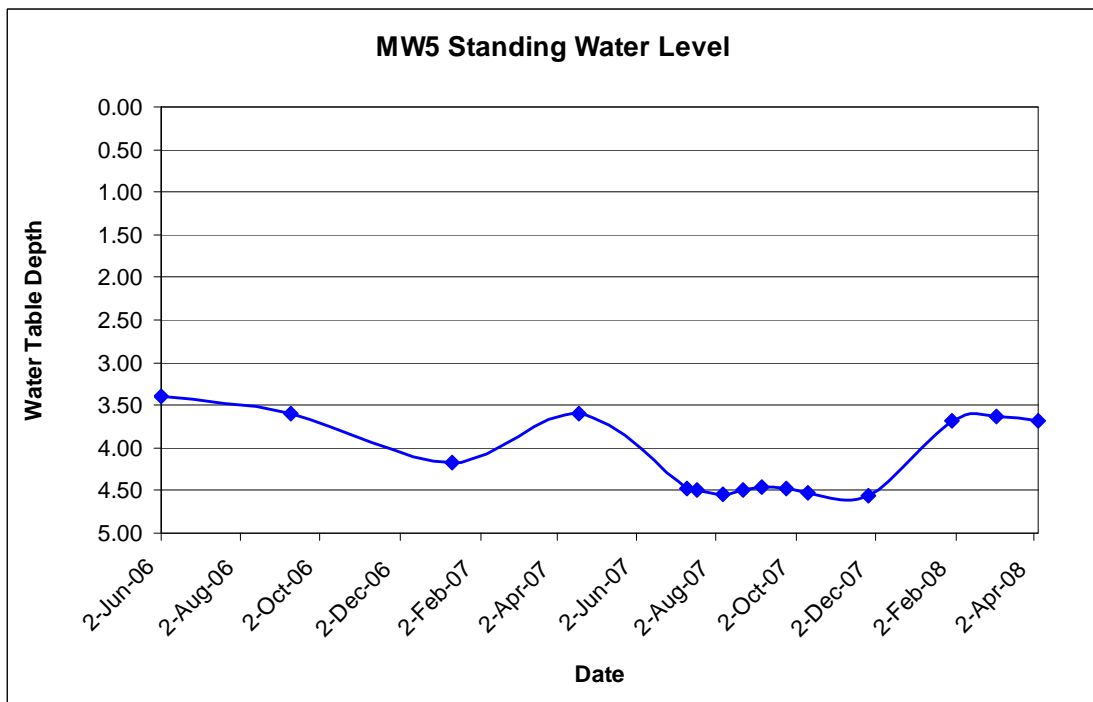
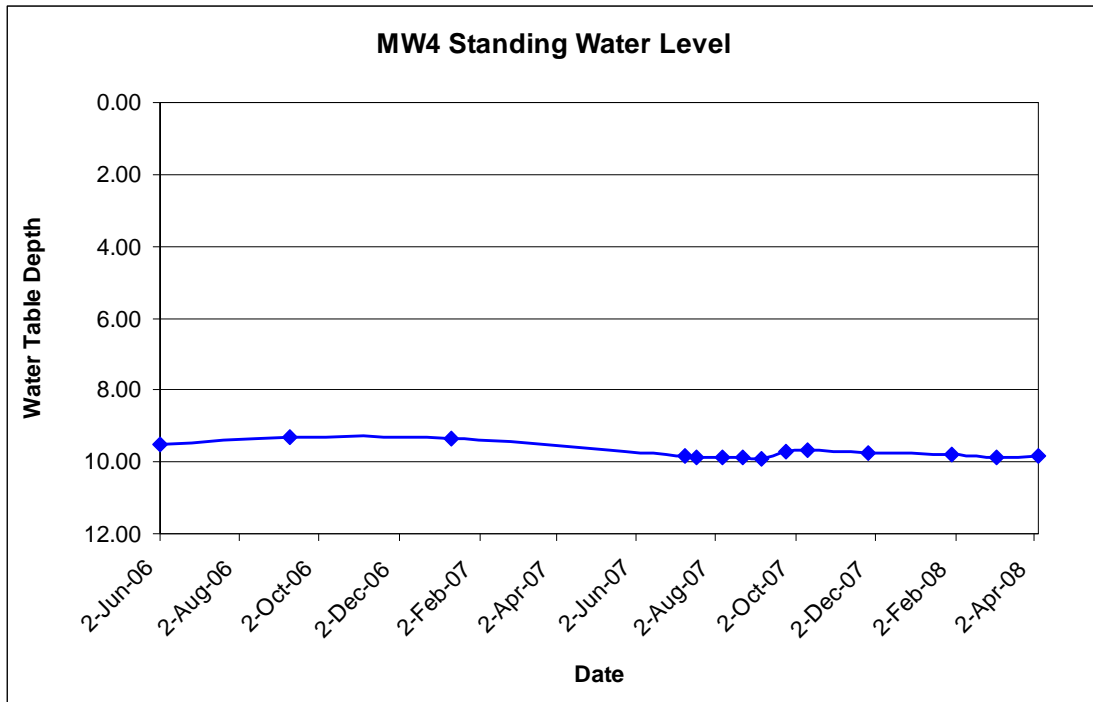
Ground Water

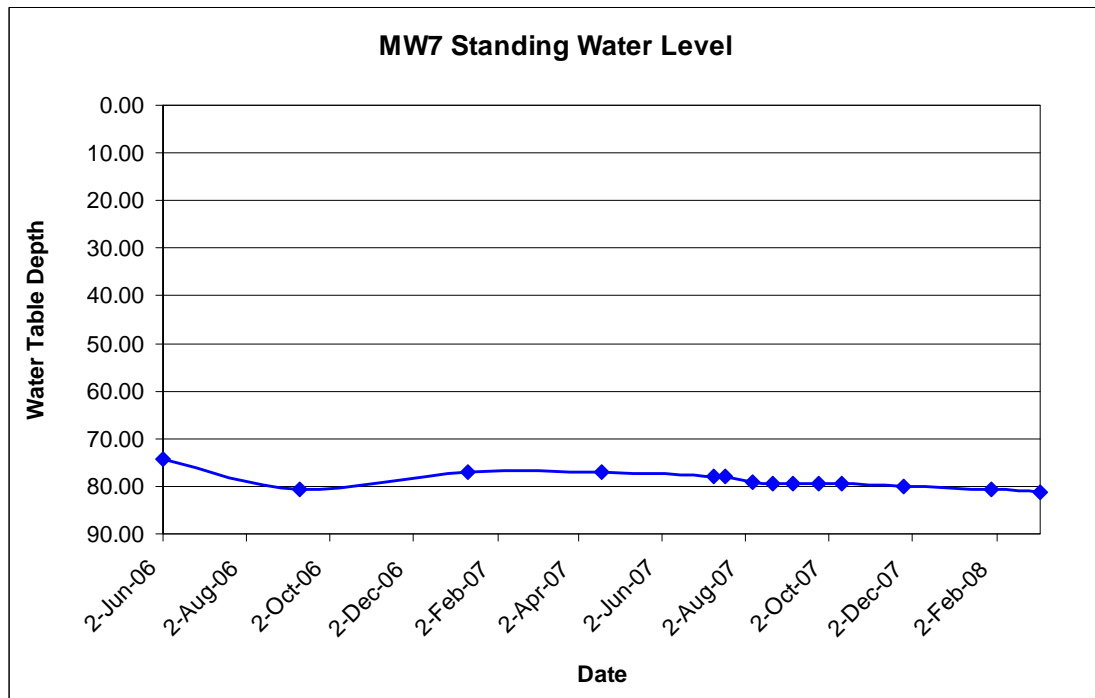
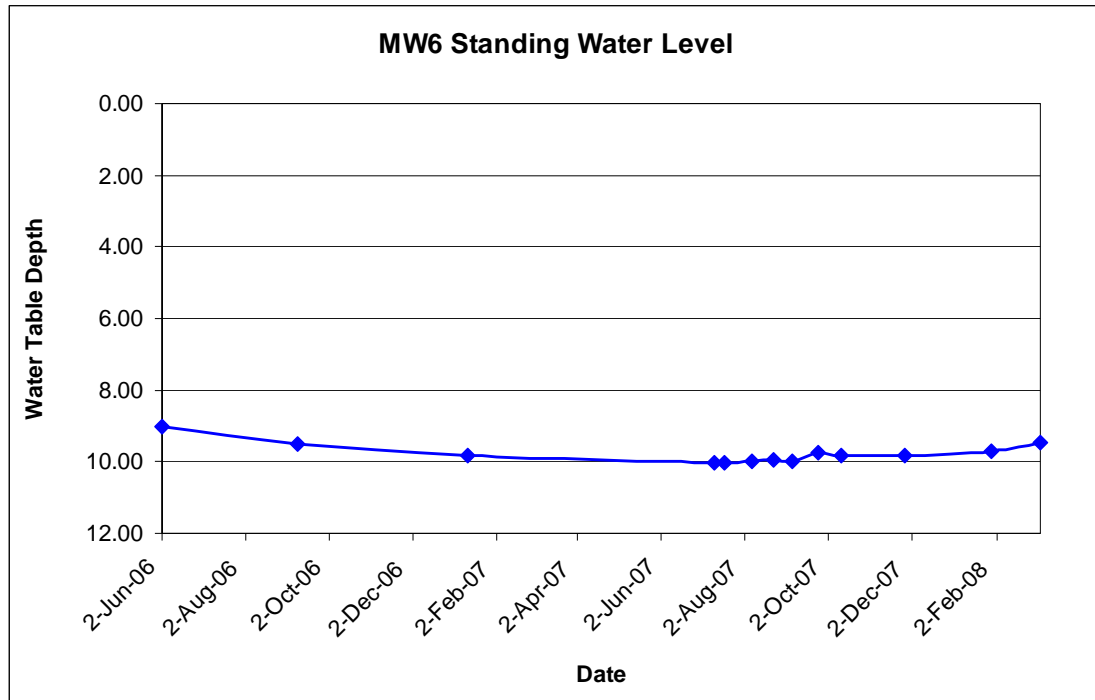
The 6 monthly (full analysis) ground water monitoring was recently undertaken in April by Ecowise Environmental. The results from the monitoring have not yet been received. The results will be provided for the next CCC meeting. The regular Standing Water Level readings have continued to be taken with results presented in the table below:

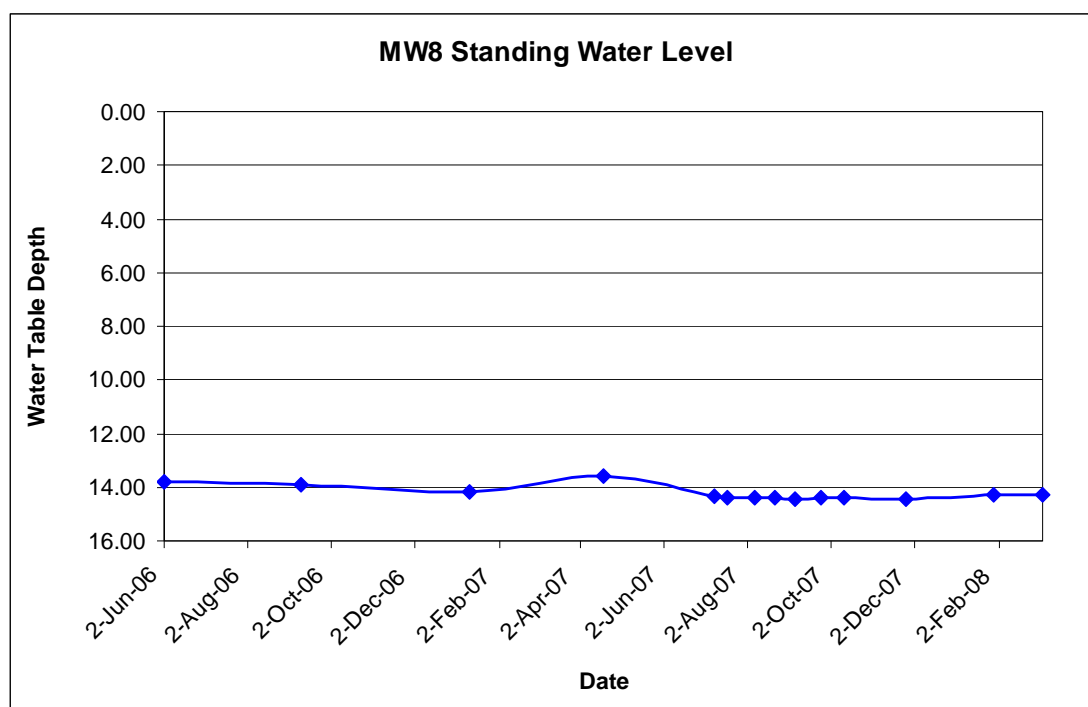
Site	Date	SWL (m)	pH	Elect. Conduct	
MW1	June 06	8.54	7.5	6330	
	January 07	9.22	7.1	2410	
	April 07	7.49			
	July 07	7.91	7.3	2500	
	August 07	7.66			
	September 07	7.66			
	October 07	7.64			
	November 07	7.62			
	January 08	7.55			
	March 08	7.60			
MW2	June 06	4.39	7.0	5440	
	January 07	4.62	6.8	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			
MW4	June 06	9.49	7.0	3290	
	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	9.85			
MW5	June 06	3.38	6.9	1530	
	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	3.69		
MW6	June 06	8.99	7.3	2030
	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		
MW7	June 06	74.2	7.2	2250
	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		
MW8	June 06	13.8	6.7	2240
	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		









The results indicate only minor variability in the ground water levels at each of the TCM monitoring bores. Monitoring will continue on a quarterly basis to generate additional data over time in order to establish ongoing trends in groundwater levels at our monitoring sites.

Surface Water

Water quality tests of water in storage dams is undertaken quarterly. The results from sampling in March 08 are presented below.

Date	Sample Site	pH	EC	Total Suspended Solids	Oil & Grease
18/03/2008	SD9	6.9	245	27	<2
18/03/2008	SD20	7.4	385	44	<2
18/03/2008	SB5	7.8	870	54	<2
18/03/2008	SB7	7.5	365	387	<2
18/03/2008	SD17	7.4	460	58	<2
18/03/2008	MV	7.8	3110	10	<2
18/03/2008	Pit Water Dam	8.3	2620	44	<2

As there is no discharge associated with these results there is no criteria applicable. The results do however indicate low levels of Total Suspended Solids generally, with the sites above discharge criteria being sediment basins where TSS levels would be expected to be higher.

Discharge events occurred on the 17th January 2008 and 6th February following significant rainfall. The results from the discharge analysis is as presented below:-

Date	Sample Site	pH	EC	Total Suspended Solids	Oil & Grease
17/01/2008	SD17	7.6	425	837	<2

The above event resulted from a storm which caused a minor discharge from the Storage Dam on the western boundary of the lease. The TSS level was elevated as a result of the waterway on the western rehab suffering significant wash during the storm as it had only recently been shaped and seeded. As the TSS was above consent criteria the DECC was notified.

Date	Sample Site	pH	EC	Total Suspended Solids	Oil and Grease
6/02/2008	SD17	7.9	420	476	<2

The above event again followed a storm which caused further sediment transfer from the waterway into the sediment basin below. Following this event, and in view of the difficulty in getting adequate ground cover established, the waterway was cleared of topsoil and subsoil in preference to full rock lining. Rock lining of the waterway is progressing with completion expected in the near future. The DECC was advised of the above exceedance and undertook an inspection of the site. An implementation plan was provided to DECC identifying ongoing actions with regard to completion of rock lining, pumping out of water from SD17 and SB7 and desilting those storages. Tarrawonga Coal will also be undertaking a full review of the Site Water Balance as part of the upcoming AEMR.

Complaints

Since the last meeting there have been no complaints lodged on the complaints line. Direct contact has been made with the Tarrawonga Site Office in relation to blasts on the 23rd April and 1st May from Pam Crosby of "Northam" indicating those particular blasts rattled windows and caused vibration through the house. Blast monitors indicated the blasts were well within compliance limits with highest readings to the south east at Bollol Creek and Templemore, as opposed to readings to the south west at the Tarrawonga monitor. Mrs Crosby was advised to contact the Environmental Officer should she continue to have concerns in relation to blast impacts at the Northam property.