

# **Minutes of the 20<sup>th</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee**

**Meeting Held:** 9<sup>th</sup> February 2011 at 10:00am

**Venue:** Tarrawonga Coal Mine, Training Room

## **1. Present and Apologies**

**Present:** Clr Ken Bates (Narrabri Shire Rep), Chairman  
Mr Danny Young (Environmental Manager)  
Miss Jill Scealy (Environmental Officer)  
Mr Bob McGregor (Community Rep)  
Mr Bart Crosby (Community Rep)  
Mr Peter Laird (Community Rep)  
Clr Colleen Fuller (Gunnedah Shire Rep)  
Mr Ged Conder (Temporary Project Manager)  
Mr Tim Muldoon (Community Liaison Officer)  
Mr John Molloy (Visitor – Toll Resources)

**Apologies:** Mr Sandy Bull (Community Rep)  
Mr Jason Conomos (Project Manager)

## **2. Previous Minutes**

Minutes of the previous meeting were adopted as a true record on the motion of Peter Laird and Colleen Fuller.

## **3. Business Arising**

- 3.1.** Jill Scealy advised that the Section 75W modification Project Approval had been posted to all CCC members. Ken Bates advised that he didn't receive his copy. Jill Scealy printed a copy and issued it to Ken Bates at the meeting.
- 3.2.** Ken Bates advised that there is little to report regarding progress of the Mining Related Council's plan to appeal for re-injection of funds back into mining communities. He advised that a meeting was to be held at Parliament House later in the month and that the upcoming election would have an impact on the outcome.
- 3.3.** John Molloy advised that the need for hardstand bays has reduced as a result of the depot relocating to Vickery. Drivers are making use of Vickery, Tarrawonga and Rocglen facilities for breaks as well as existing hardstand bays. There is a possibility that one could be installed between Vickery and the Speedway but this will need to be investigated further so it was agreed that this item should be removed from the agenda at this stage.
- 3.4.** Danny Young advised that the sunken concrete on the haul route where the former ramps were located had been fixed by filling with a

bitumen seal. Bart Crosby said the Sandy Bull had mentioned that the repair was a big improvement in relation to truck noise.

- 3.5.** John Molloy indicated that any trucks travelling along the haul route outside of the approved haulage hours would be isolated incidents of breakdowns that are repaired and transported back to the depot for security reasons. He referred to the issue raised at the last meeting about two trucks travelling on Manilla Road outside of the approved hours and advised that one truck was escorting another truck with maintenance issues.

Whilst discussing haulage hours, Ken Bates noted that he had heard rumours that Toll were investigating possible 14 hour shifts. John Molloy explained that the Basic Fatigue Management (BFM) system under the RTA allows for 14 hours of driving with two ½ hour breaks. John also detailed the controls that Toll have in place to manage fatigue which include the Opti-Alert system that alerts the driver and leading hand if fatigue is identified, extensive driver training, medical assessments of drivers and the use of a satellite tracking system. John also advised that if a driver is showing signs of fatigue they are sent home. He noted a recent example where a driver had not suitably rested prior to arriving for the shift and for this reason was sent home before commencing the shift.

John detailed the proposed roster for the longer hours (which only a selected few suitable drivers would be undertaking), as listed below:

- Week 1 – long shift, short shift, long shift, short shift, long shift
- Week 2 – short shift, long shift, short shift, long shift, short shift
- Week 3 – 5 x short shifts

Long shifts are considered 14 hours while short shifts are considered 8 hours.

John committed that only suitable drivers will be allowed to drive the long shifts and drivers that live a greater distance from the depot (eg. Tamworth) will not be considered for the shifts. He said that 14 hour shifts will always be the minority. In addition to this, John mentioned that Toll is investigating the possible construction of a “bunker” at the depot for drivers who are fatigued. Any construction will require appropriate approvals.

John noted the difficulty with employing people in the region and that the longer shifts make working for Toll more financially beneficial for drivers. There was general discussion about employment issues and John suggested that Country Week should include representatives from companies such as Toll and Whitehaven. John said that they had recently advertised for drivers in the local area plus other areas such as Inverell and Mudgee and only had 3 applicants. Colleen Fuller said that the Regional Development Strategy receives both State and Federal funding and she will arrange for companies such as Toll and Whitehaven to be invited in order to put their case forward about employment issues.

Ken Bates asked if there were training facilities for people to move from single trucks to B-doubles. John Molloy indicated that approximately 15 drivers had been trained in the last twelve months and Toll had just employed an RTA approved trainer to train new drivers. They can only train for HC drivers at the moment but are undertaking the training to allow for training in MC as well.

Ken Bates highlighted the safety issues with longer shift and said they were a grave concern to the community. John Molloy admitted that monotony is one of the biggest issues with truck driving but Toll believes they have enough safeguards in place to manage it.

Bart Crosby asked if the two ½ hr breaks make the shift a 15 shift. John Molloy said that it can but they're finding that the required number of loads is being completed in less time. Bart asked about when the breaks must be taken and whether they can be taken at the start and end of the shift. John indicated that they could not be taken at the start and end of shift and are taken in accordance with RTA standards.

Bob McGregor asked how long the mine shifts are. Jed Conder said that they are up to 14 hours including travel.

John Molloy said that the drivers doing 14 hour shifts are not asked to do additional activities such as fuelling up that will extend the length of their shift.

Bob McGregor asked what happens if the CCC allows the long shifts to occur and something goes wrong. Ken Bates said that the Committee can object but either way, no responsibility will be placed on the Committee in the event of any issues. Tim Muldoon noted that the CCC is a consultative committee and not a management committee, so there aren't any obligations for the Committee in relation to this issue.

- 3.6.** Ken Bates advised that the letter regarding safety concerns at the Bluevale/Kamilaroi Highway intersection had been issued to Gunnedah Shire Council in December. Jill Scealy requested a signed copy of the letter. Colleen Fuller advised that she sits on the RTA Traffic Committee and to her knowledge the Committee had not received the letter. Colleen committed to following up about whether the letter had been received. Update to be provided at the next meeting.
- 3.7.** Ken Bates advised that the letter regarding safety concerns on the Manilla Road had been issued in person to the Narrabri Shire Council General Manager in December. No response has been received yet. Update to be provided at the next meeting.
- 3.8.** Danny Young said that a template for the newsletter had been developed but Whitehaven was waiting for the final conceptual extension design prior to issuing advice to the community. Danny said

he expects the newsletter will be issued around late February and will include details of what is currently approved and what is proposed.

Bart Crosby asked what the future plans were. Danny Young explained what the recently approved modification allowed us to do and detailed the proposed future extension to the east with options including dumping to the south or north and mining through the northern boundary onto the Idemitsu Boggabri Coal (IBC) lease under a joint venture arrangement. Danny detailed the requirement in the approved modification to liaise with IBC regarding final landforms that blend between the two mines. The original extension option was to dump to the south but the mine is now looking at the possibility of dumping to the north to avoid the formation of a valley between Tarrawonga's and IBC's waste dumps and enable a more considered final landform in conjunction with Boggabri Coal's final landform.

Bart Crosby asked how many years the extension would be for. Danny Young said at this stage it would likely be until 2030. He said that the coal is quite deep at the eastern boundary of the lease. Bart asked if information on the extension would be included in the newsletter and Danny said that the newsletter would provide a general overview of the proposed extension. Danny explained that the Company doesn't want to send out plans and details of the extension before we had some certainty about what design was feasible.

Ken Bates asked how long it would be until that application was submitted and Danny indicated that it would be submitted at the end of 2011 at the earliest.

There was general discussion about the extension possibly including diversion or alteration of water courses to the south of the existing lease. Ken Bates said that relocating water courses would certainly "open up a can of worms" and that he was opposed to it. Ken said that he wants Whitehaven to do a presentation to the community about the extension. Bart commented at the last meeting that Whitehaven said that they didn't know that anything was going to happen and now all of sudden we're telling the Committee about all these plans. He said that when the mine first started Tony Jones (Community Liaison Officer) said they wouldn't notice the mine but now it looks like a moonscape.

Danny Young agreed that the community needs to be informed but said the Company doesn't want to give a presentation on something that we're not certain on yet. In relation to Bart Crosby's previous comment, Jill Scealy stated that Company representatives wouldn't have said at the last meeting that we weren't going to do an extension. Bart said that it was indicated that we didn't know what was going to happen. Tim Muldoon said that his recollection was that the discussions were about the approved modification and a possible extension that was in the very early stages. Danny Young also advised that the possible extension was documented in the Environmental Assessment for the recently approved modification and that details on possible extensions are complicated by the joint venture with Idemitsu.

Whitehaven was questioned about whether the northern dump could be constructed to a greater height to avoid use of the southern dump which could interfere with water courses. Danny Young advised that this could be an option and it is currently being investigated, along with other options, for its feasibility.

Ken Bates said that there is concern within the community about mining companies buying out properties and that it makes the community worry about what is going on. Ken reiterated his concern about interfering with water courses and said that there is an issue with mining companies not wanting to have meetings with the community to discuss what is happening. He said that the community doesn't want the information to be provided when it's too late to do anything about it.

Danny Young said that Whitehaven is not adverse to public consultation and referred to the open day/information sessions for the Narrabri Stage 2 project and the Werris Creek Life of Mine Environmental Assessment (EA). Tim Muldoon noted that the Werris Creek meeting was months before submission of the EA and a lot of the community's concerns were addressed at that time rather than via the EA process. Jill Scealy also briefly explained the EA process in relation to the number of expert consultants used to assess all environmental, social and heritage impacts. She noted that the process can take some time and the original proposal can be very different by the time all of the studies and economic feasibility of the project have been considered.

Ken Bates reiterated his concern about all the property that mining companies are buying. He said not only are the properties being "locked up" as required by legislation but the purchases are resulting in families moving away thereby impacting on the community. He said that they had lost the school bus run, school kids and teachers as a result of property purchases by mining companies.

Bob McGregor said that Boggabri residents initially thought that mining would be good for the community but Boggabri is now worse off than it was before Whitehaven came to the area. Bob provided the example of the hardware store closing and Jed Conder asked whether it closed because it lost business from the farmers that were bought out by the mines or whether it just wasn't a viable business. Jed also noted how a number of mine employees had moved to the Boggabri area to work at the mine. Bob said he wasn't sure why the town was worse off. Jill Scealy noted that the motel in Boggabri is constantly booked out by mining related people and Tim Muldoon commented on strong support given to companies such as Pursehouse Rural. Tim also said that often when properties are purchased the owners are allowed to stay in the residence on a lease back arrangement.

The local community's concern about farming country being locked up for offsets was discussed. Danny Young noted that the government policy includes locking up farmland to convert it back to woodland.

Ken Bates requested that the offset policy be described in the newsletter.

Bart Crosby raised concern about the leaseback option for properties because lessees don't treat property like their own. Tim Muldoon agreed and said it is his responsibility to maintain viable properties so there are now conditions in leases to ensure properties are maintained effectively.

Peter Laird said that some people he has spoken to are concerned about their property values and that people don't want to buy farms next to coal mines.

Peter Laird said that the mine needs to look closely at water management because water that previously drained to the west now drains to the south. Bart Crosby said that contour banks had changed the drainage through his parents place. Bob McGregor said that there haven't been major impacts at his property but there will be if the creek is diverted. Danny Young said that the hydrologist working on the EA will discuss water flows with local landholders as part of this study.

## **4. General Business**

### **4.1. Mine Progress Report**

In the absence of Project Manager, Jason Conomos, Danny Young reported November 2010 – January 2011 production results as follows:

4.0 million BCM overburden removed  
373,000 tonnes of coal recovered

This is behind schedule due to the amount of rainfall in December.

The site has approximately 90 employees.

The rehabilitation status hasn't changed since the last meeting because of the increasing height of the waste emplacement. Relocation of topsoil has commenced as permitted under the recent modification.

Bart Crosby asked about the bund wall on the overburden emplacement mentioned in the EA. Danny said that the bund wall is still to be developed.

### **4.2. Environmental Monitoring Report**

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

Danny also mentioned a complaint received the day before the meeting about an excavator being transported to site bringing down powerlines on Manilla Road. After investigation the transport company accepted responsibility for the issue and committed to contacting Country Energy to make arrangements for paying the cost of repairs.

Danny advised the committee that Whitehaven's General Manager – Open Cuts and the contractor had been requested to review their procedures to prevent the incident occurring again.

Bart Crosby suggested upgrading the line with power poles that increase the height of the line. He also questioned follow up with the transport company to which Danny advised that he had received a copy of the correspondence between the company and Country Energy.

Bart Crosby asked if there was any reason why the lights on the waste dump had to face outwards because he now has to shut the curtains on his daughter's window so she can go to sleep. Danny said it depends on where they are dumping but he would discuss the issue with Jed and the OCE to alleviate lighting issues.

## **5. New Business**

- 5.1.** Bart Crosby asked whether Ken Bates wanted to discuss the issue of pecuniary interests that he had mentioned briefly at the previous meeting. Following general discussion, it was agreed that an item should be added to future agendas that allows committee members to declare any interests that relate to agenda items.
- 5.2.** Bob McGregor asked if it is possible to add a committee member who is a resident of Boggabri. It was discussed that any new members must be appointed as per the guidelines (ie. advertising, DG approval). Bob said we could look at this if there is someone who's not interested in being on the committee anymore.

## **6. Complaints**

Complaints were discussed in the Environmental Monitoring Report.

## **7. Next Meeting**

The next meeting will be held at the Tarrawonga Coal Mine Training Room on Wednesday 11th May 2011 at 10:00am. A site tour is proposed.

Meeting closed at 11:50 am.

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Ken Bates - Chairman

# Tarrawonga Coal Mine Community Consultative Committee Meeting #20

## Environmental Monitoring Report November 2010 – January 2011

### Noise Monitoring

Noise monitoring was undertaken on Wednesday 15<sup>th</sup> and Thursday 16<sup>th</sup> December 2010 as per requirements under the consent. Results from the monitoring are outlined below:

Noise Monitoring Results – 15 <sup>th</sup> & 16 <sup>th</sup> December 2010 (Day) (Ambardo & Pine Grove on the 16 <sup>th</sup> )				
Location	Time	dB(A),Leq (15 min)	Wind speed/direction	Identified Noise Sources
Bollol Ck Station	11:09 pm	41	0.5-1 m/s NW	<b>TCM (40)</b> , birds (34)
Tarrawonga	11:36 pm	43	<0.5m/s NW	Birds and Insects (43), <b>TCM (35)</b>
Ambardo	7:03 am	57	<0.5m/s S	Birds (57), <b>TCM (40)</b> <sup>1</sup>
Pine Grove	7:33 am	54	<0.5m/s S	Birds (54), <b>TCM (40)</b> <sup>1</sup>

<sup>1</sup> Trucks on private section of haul road.

Noise Monitoring Results – 15 <sup>th</sup> December 2010 (evening)				
Location	Time	dB(A),Leq (15 min)	Wind speed/direction	Identified Noise Sources
Bollol Ck Station	8:21 pm	50	<0.5m/s NW	Birds and Insects (50), <b>TCM (35)</b>
Tarrawonga	9:18 pm	47	<0.5m/s NW	Insects (47), <b>TCM (&lt;25)</b>
Ambardo	11:56 pm	51	<0.5m/s NW	Insects (51), <b>TCM (39)</b> <sup>1</sup>

<sup>1</sup> Trucks on private section of haul road.

Noise Monitoring Results – 15 <sup>th</sup> December 2010 (night)				
Location	Time	dB(A),Leq (15 min)	Wind speed/direction	Identified Noise Sources
Bollol Ck Station	11:40 pm	44	Calm	Insects (44), <b>TCM (32)</b>
Tarrawonga	10:23 pm	45	<0.5m/s NW	Frogs and insects (45), <b>TCM (30)</b>
Ambardo	11:37 pm	41	Calm	Insects (41), <b>TCM (29)</b>

The results show that noise emissions from operations associated with the mine were higher than the operational noise criterion of 35 dB(A),L<sub>eq(15min)</sub> at the monitoring locations of “Ambardo”, “Pine Grove” and “Bollol Ck Station” during the day survey and “Ambardo” during the evening survey. The noise at “Ambardo” and “Pine Grove” was due to emissions from trucks travelling on the private section of the haul road. On the basis of private agreements with the residents of the two properties, this is not considered a non-compliance. “Bollol Ck Station” is a mine owned property.

In addition to the operational noise, the noise from the mine must not exceed 45 dB(A),L<sub>1(1min)</sub> between the hours of 10 pm and 7 am. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the mine.

During the night time measurement circuit the L1 (1min) noise from the mine did not exceed 45 dB(A) at any monitoring location.

## **Blast Monitoring**

### **Blasting Results**

Since the first shot there have been 270 blasts (until 14<sup>th</sup> of January 2011).

All blasts during this report period have been compliant within the limits of 115dB<sub>L</sub> and 5mm/s.

To date, the highest overpressure recorded remains at 117.0 dB<sub>L</sub> recorded at “Bollol Creek Station” on the 5<sup>th</sup> July 2007. The highest ground vibration recorded is 2.88 mm/s recorded at “Templemore” on the 25<sup>th</sup> October 2010.

## **Air Quality**

### **Air Quality (Dust Deposition) Results**

MONTH	TEMPLEMORE (EB-4)	BOLLOL CREEK STN (EB-5)	AMBARD (EB-6)	TARRAWONGA (EB-7)	THUJIN (EB-8)	PINE GROVE (EB-9)	TARRAWONGA MINE (EB-10)	TARRAWONGA MINE (EB-11)	PINE GROVE (EB-12)
January 2010	3.3	8.8	3.3	1.4	1.2	1.7	2.0	3.3	2.7
February 2010	1.5	2.8	0.8	2.2	2.1	0.9	0.8	1.2	6.2
March 2010	0.9	1.4	1.2	1.0	1.3	0.7	1.7	3.5	5.6
April 2010	4.9	1.4	1.0	0.8	3.3	0.5	1.2	0.9	3.5
May 2010	3.3	2.9	1.2	0.7	1.8	0.5	0.8	0.9	0.6
June 2010	3.0	3.8	0.4	0.4	3.0	0.4	2.1	2.9	1.0
July 2010	1.2	1.5	0.3	0.4	0.3	1.9	0.8	1.3	0.5
August 2010	1.3	1.4	1.1	0.5	1.9	0.7	0.7	0.9	0.2
September 2010	0.9	2.1	0.7	0.8	1.5	0.6	3.6	2.1	0.7
October 2010	1.6	4.8	1.0	1.3	2.6	0.9	4.5	1.4	0.7
November 2010	0.9	1.7	0.8	1.0	3.0	0.7	28.3	2.3	1.2
December 2010	8.2	2.0	0.6	1.2	3.4	0.6	6.8	2.4	1.8
<b>ANNUAL AVERAGE</b>	<b>2.6</b>	<b>2.9</b>	<b>1.0</b>	<b>1.0</b>	<b>2.1</b>	<b>0.8</b>	<b>4.5</b>	<b>2.0</b>	<b>2.1</b>

Elevated deposited dust results occurred over October at EB-5 (4.8g/m<sup>2</sup>/month) and EB-10 (4.5 g/m<sup>2</sup>/month), November at EB-10 (28.3g/m<sup>2</sup>/month) and December at EB-4 (8.2 g/m<sup>2</sup>/month) and EB-10 (6.8 g/m<sup>2</sup>/month). Despite these elevated dust readings Tarrowonga Mine (EB-10) was the only monitoring point to exceed the annual average criteria of 4g/m<sup>2</sup>/month. This is due to the abnormally elevated result received during November 2010 which is most likely related to some form of contamination. Given the low results received at all other monitoring locations for that month it is expected that this reading is not caused from mine related activities.

### **PM<sub>10</sub> Results**

The annual average for PM<sub>10</sub> readings is currently at 12.74µg/m<sup>3</sup> (compared to 18.07µg/m<sup>3</sup> 3 months ago), which is well below the annual average limit of 30µg/m<sup>3</sup>. PM<sub>10</sub> levels have remained compliant since the last CCC meeting.

The highest 24hr reading to date is 97µg/m<sup>3</sup> which was recorded on the 8<sup>th</sup> December 2009.

## **Water Monitoring**

### **Ground Water**

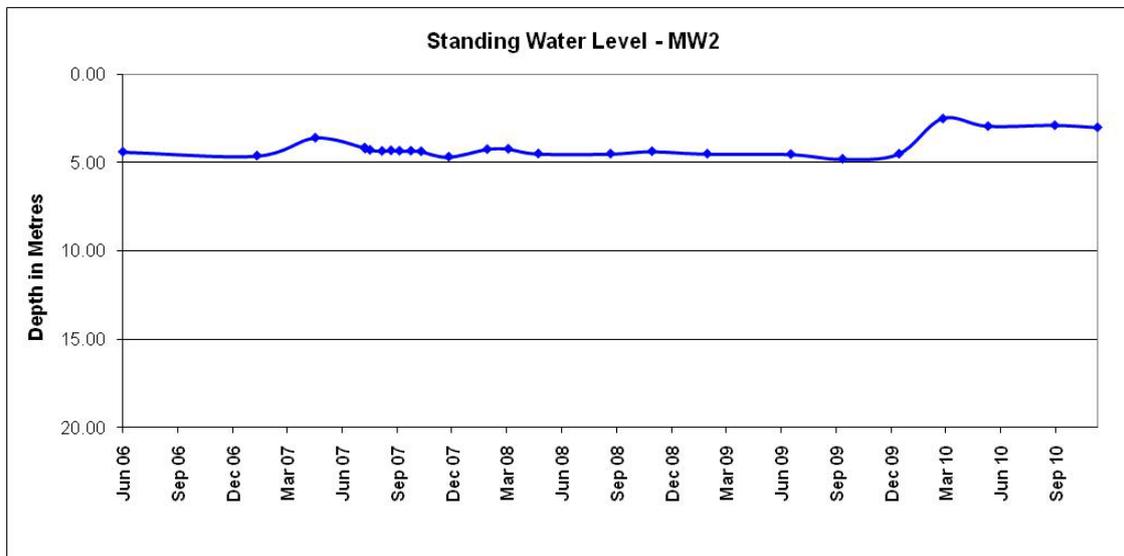
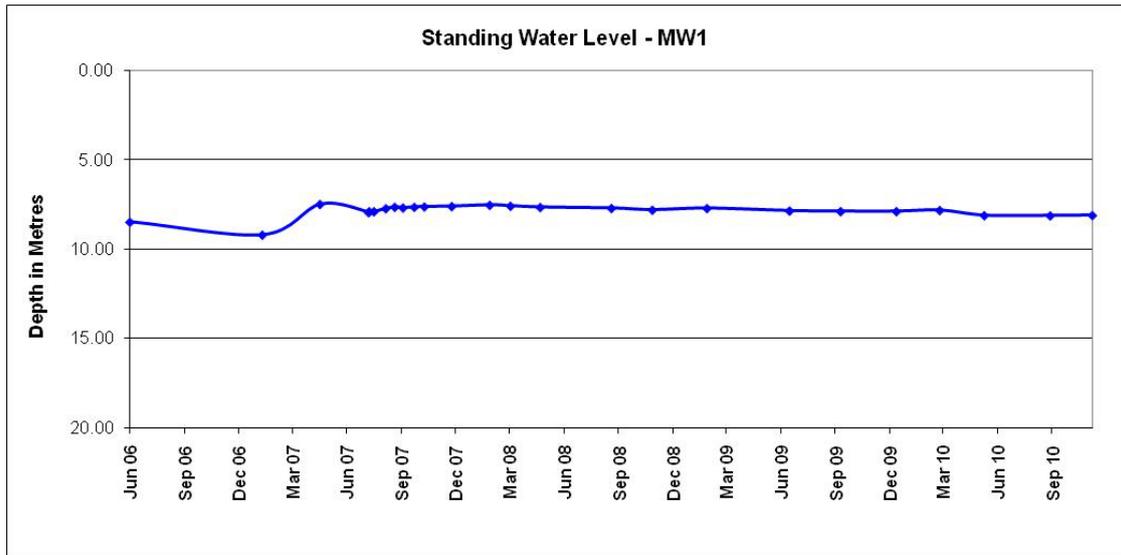
Groundwater monitoring data obtained to date, including the last round of SWL monitoring in November 2010, is presented in the following table. The next round of monitoring is scheduled for February 2011.

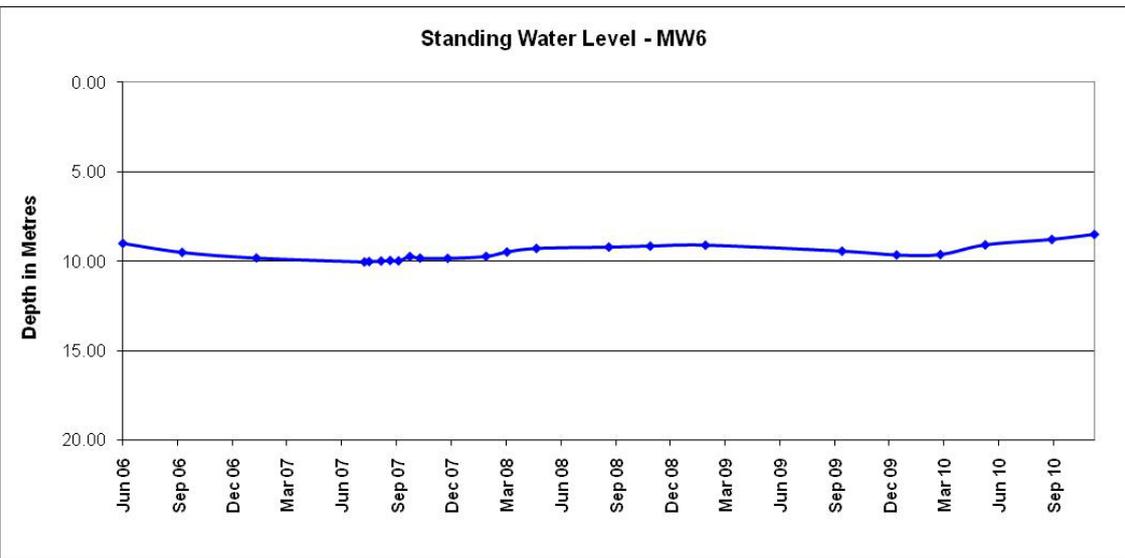
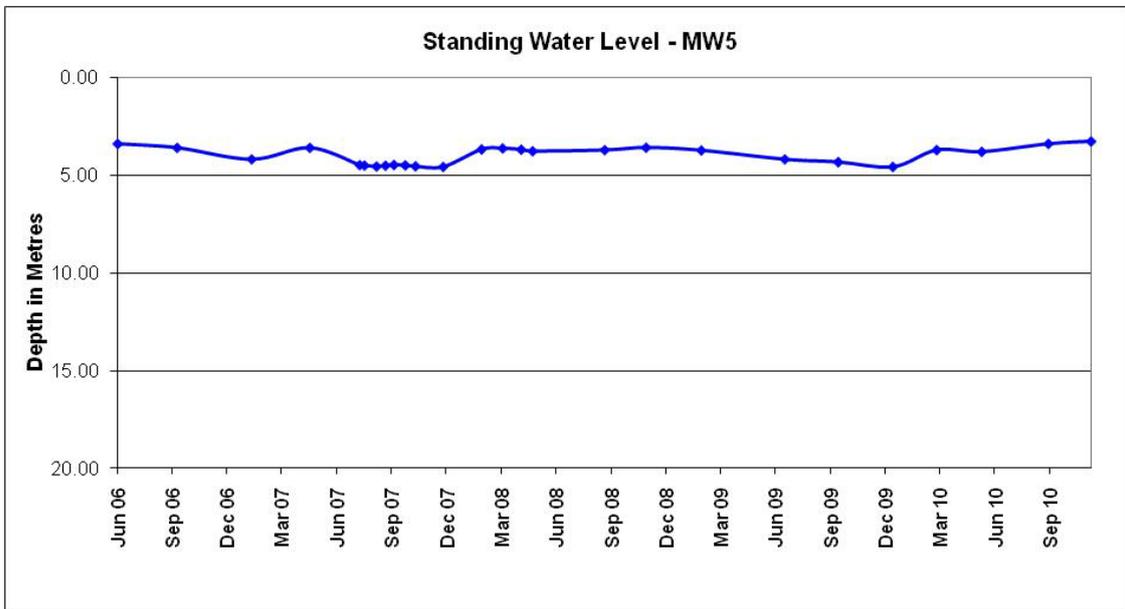
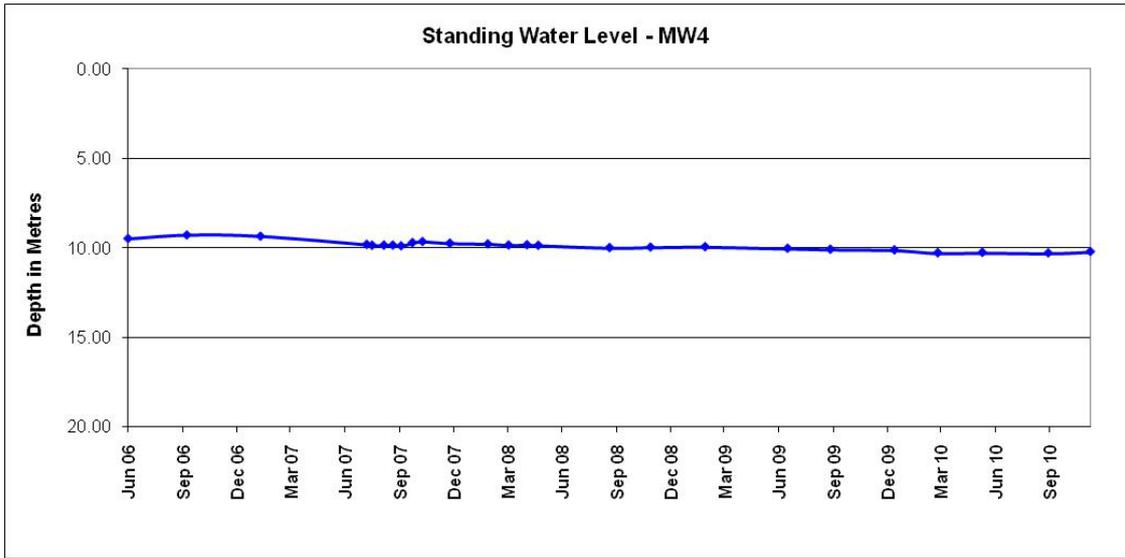
<b>Site</b>	<b>Date</b>	<b>SWL (m)</b>	<b>pH</b>	<b>Elect. Conduct</b>
<b>MW1</b>	January 07	9.22	7.1	2410
	April 07	7.49		
	July 07	7.91	7.3	2500
	August 07	7.66		
	September 07	7.66		
	October 07	7.64		
	November 07	7.62		
	January 08	7.55		
	March 08	7.60		
	April 08	7.67	7.3	3120
	August 08	7.73		
	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	
<b>MW2</b>	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			

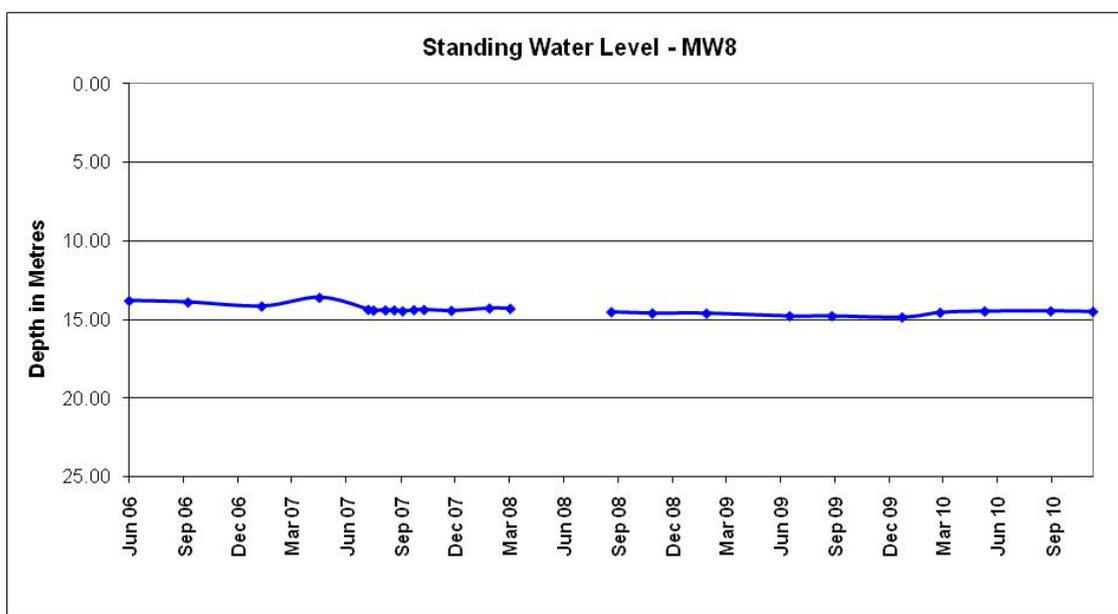
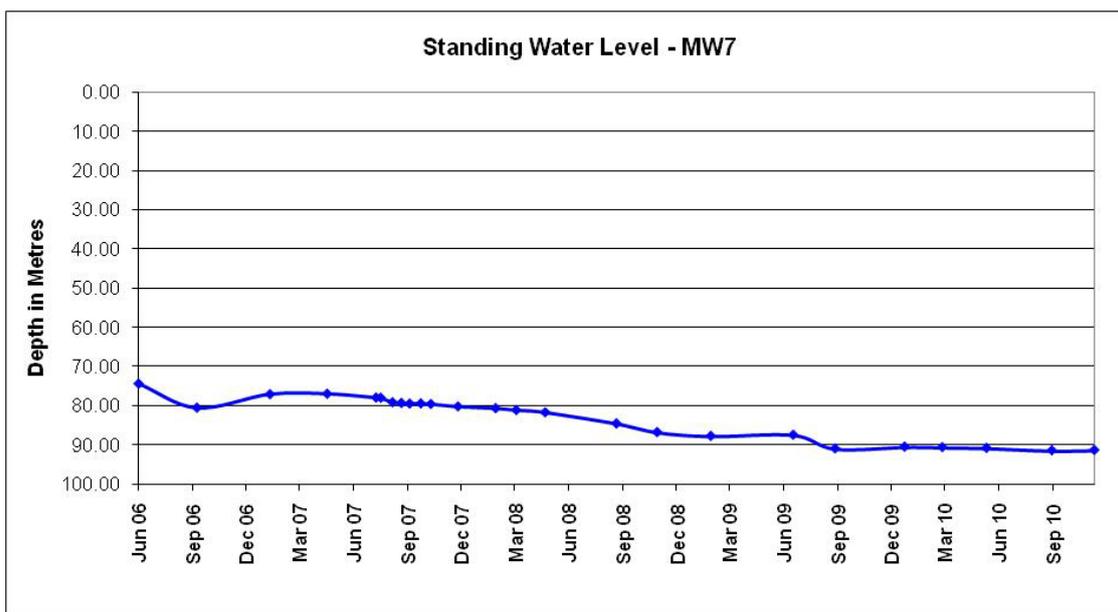
	August 10	2.89	7.4	590
	November 10	3.01	7.32	513
<b>MW4</b>	September 06	9.25		
	January 07	9.37	7.1	3430
	July 07	9.88	6.8	5400
	August 07	9.87		
	September 07	9.73		
	October 07	9.67		
	November 07	9.76		
	January 08	9.80		
	March 08	9.87		
	April 08	9.88	7.1	5160
	August 08	10.01		
	September 08			
	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
<b>MW5</b>	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
<b>MW6</b>	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
<b>MW7</b>	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
<b>MW8</b>	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	







The results indicate relatively consistent SWL at all monitoring sites since the last round of monitoring. Sites MW5 and MW6 are beginning to show slight instances of groundwater recharge. 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

Routine surface water monitoring was conducted in August 2010. The results indicated a high pH reading at SB16 (9.19) and SD16 (9.49). This could be a result of drainage from the southern waste emplacement which contains alkaline material. Later samples of SD16 during a discharge event in December 2010 indicated the pH had dropped to 8.03. Results of ongoing surface water sampling will be closely monitored to track future pH movements. Apart from this there were no results that indicated any change in water quality since mine commencement. The next round of surface water monitoring will be conducted in February 2011.

Four wet weather discharge events have occurred since the last CCC meeting

### **12<sup>th</sup> November 2010**

Discharge occurred at SB14 after 46.2mm of rainfall over the preceding 5 days. In the previous month 99.2mm of rainfall was recorded on site which saturated the soil and filled storages. With ground conditions at saturation, surface flows into SB14 had insufficient settling time before discharge, and the site did not have the capacity to utilise the volume of water required to empty SB14 prior to additional rainfall events. A Total Suspended Solids (TSS) reading of 58 mg/L was recorded at SB14, which slightly exceeds the concentration threshold of 50mg/L, however the threshold does not apply as the rainfall quantity was greater than the 5 day 90% design criteria of 38.4mm for Gunnedah. The high TSS is thought to be associated with the waste emplacement and pre-strip area which is in close proximity and provides a large catchment to SB14.

Downstream flows occurred at Nagero Creek and Bollol Creek which were sampled and recorded no significant change in water quality.

### **1<sup>st</sup> December 2010**

Discharge occurred at SD16 following 39mm of rain over the previous 5 days. All results from the discharge sample indicated no exceedance of EPL criteria.

### **3<sup>rd</sup> December 2010**

Discharge occurred from SB14 after 40.6mm of rain over the previous 5 days and 140mm over the previous month. The rainfall was greater than the 5 day 90% design criteria of 38.4mm for Gunnedah. The results indicated a TSS reading of 122mg/L, which exceeds the EPL threshold of 50mg/L. As the amount of rainfall was greater than the 5 day 90% design criteria of 38.4mm for Gunnedah the concentration threshold does not apply.

Downstream flows occurred at Bollol Creek which were sampled with results indicating no change in water quality, apart from the TSS dropping to 46 mg/L. This indicates that the sediment in the discharge water was able to settle out prior to entering the downstream waterways.

### **10<sup>th</sup> December 2010**

Discharge occurred from points SD-17, SD-16, SD-9 & SB-14 after 50mm of rainfall on that day and a total of 160mm over the previous month. Given the volume of water delivered over such a short time, all storage capacities had insufficient settling time before discharge. The extent of rainfall over the previous month had also made any efforts to reduce volumes of water storage impractical.

The 50mg/L TSS threshold was exceeded at SD-17 (152mg/L), SD-9 (66mg/L) and SB-14 (156mg/L). As the rainfall was substantially greater than the 5 day 90% design criteria of 38.4mm for Gunnedah the concentration threshold does not apply. No exceedance of EPL criteria occurred at SD-16. Monitoring was also conducted upstream and downstream at Nagero Creek and downstream at Bollol Creek. The results from upstream Nagero Creek show a TSS of 181mg/L, whilst downstream Nagero Creek only recorded a TSS of 79mg/L and downstream Bollol Creek recorded a TSS of 65mg/L. With the downstream TSS levels being lower than those from upstream, it is likely that the water discharged from site had minimal impact on the TSS levels of surrounding waterways.

## **Complaints**

Since the last meeting there has been one complaint lodged directly to the Environmental Manager.

### **17<sup>th</sup> January 2011**

The complaint was made to Danny Young (Environmental Manager), in relation to the amount of litter and rubbish along the Manilla Road section of the haul route. Arrangements were made for a team of Whitehaven staff to view the area and clean any rubbish lying on either side of the haul road. The matter of throwing rubbish from vehicles has also been discussed with the Tarrawonga Project Manager to raise with staff, as well as with Toll to ensure drivers are not throwing rubbish from their windows. Whitehaven will endeavor to keep this section of the road clean on a regular basis in the future.

## **Rehabilitation**

No rehabilitation has occurred since the last CCC meeting.

As the modification approval has now been granted, and the western emplacement is extending to top height, rehabilitation activities will recommence when profiling of the dump allows.

# **Minutes of the Special CCC Meeting of the Tarrawonga Coal Mine Community Consultative Committee**

**Meeting Held:** 2<sup>nd</sup> March 2011 10:15am

**Venue:** Tarrawonga Coal Mine, Training Room

## **1. Present and Apologies**

**Present:** Clr Ken Bates (Narrabri Shire Rep), Chairman  
Mr Danny Young (Environmental Manager)  
Miss Jill Scealy (Environmental Officer)  
Mr Bob McGregor (Community Rep)  
Mr Bart Crosby (Community Rep)  
Clr Colleen Fuller (Gunnedah Shire Rep)  
Mr Ged Conder (Temporary Project Manager)  
Mr Tim Muldoon (Community Liaison Officer)  
Mr Sandy Bull (Community Rep)  
Mr David Sharpe (Engineering Surveyor – Tarrawonga)  
Mr Brian Cullen (GM – Technical Services, Whitehaven)  
Mr Richard Kirwood (Principal, Resource Strategies)

**Apologies:** Mr Peter Laird (Community Rep)  
Mr Jason Conomos (Project Manager)

## **2. Presentation**

- 2.1.** Danny Young provided a Powerpoint presentation which outlined the proposed extension. The Preliminary Environmental Assessment (PEA) was submitted to DoP on the 28<sup>th</sup> February 2011 and DoP will issue it to relevant Government agencies. The outcome would be issue of DGRs (Director Generals Requirements).
- 2.2.** Danny advised that a newsletter would be issued to surrounding landholders and CCC members over the next couple of weeks.
- 2.3.** Danny advised that a community meeting would be held (most likely in Boggabri) prior to submission of the EA. Specialist consultants would be present at the meeting to discuss any concerns with community members. The meeting will likely be held later in the year and any issues raised would be dealt with in the EA.
- 2.4.** Ken Bates said that the presentation was excellent and asked what the length of the diversion of Goonbri Creek would be. Danny Young and Richard Kirwood indicated it would be approximately 2.5km. Richard said that the plan was diagrammatic and that the diversion would be designed to mimic the existing creek line. Ken said the diversion to the creek is a major concern to him and that once you change a watercourse you don't know what will happen. He said water is your life blood and we don't want to see it depleted.

- 2.5.** Sandy Bull said he didn't like the idea of changing a watercourse. He said if you change it, you might cut off other water from springs etc. He asked how much the expansion will affect farming and quality of life (dust etc). Danny Young acknowledges that there is a consistent message with the water issue and that Whitehaven would consider what has been discussed. He said it is Whitehaven's intention to have the water specialist talk with local residents about flood history and water flows and that Whitehaven is happy to take suggestions on who to talk to. In relation to other impacts, Danny said the impact studies are yet to be undertaken but when we model the impacts we will be in a much better position to address those concerns.
- 2.6.** Sandy Bull said at present the lights are blazing towards his house. Danny said issues associated with current lighting could be addressed now through discussions with site personnel and adjustments to lighting positions. Sandy said as the mine moves further around the lights get brighter and brighter. Danny indicated that with the proposed extension, out of pit dumping to the south would occur only in the initial years of the project, with all dumping thereafter to the north and in-pit.
- 2.7.** Bart Crosby asked what area would the mine encompass. Danny said approximately 600ha.
- 2.8.** Bart Crosby also raised concern about diversion of the creek and placement of infrastructure in the flood prone area. He said he knows we have specialists looking at it but it's not just the surface water flows but also underground flows. He asked how we would deal with these. Danny said we will do a groundwater assessment that incorporates results from the soil test pits in order to identify the extent of the alluvium. Pump tests plus installation of vibrating wire piezometers would also occur. Danny said that surface water and groundwater assessments must form part of the EA. Richard Kirwood acknowledged that surface water and groundwater studies are critical for the EA. Bart Crosby said it is critical to the local farmers plus areas downstream including Narrabri and Wee Waa. Danny said Whitehaven has approached Boggabri Coal and Maules Creek for information on their groundwater studies in order to identify the cumulative impact and incorporate the modelling information used in their projects in the Tarrawonga proposal.
- 2.9.** Bob McGregor asked if the infrastructure can move to higher ground so it's not on the flood plain. Danny explained that it had been placed in that area because it is already mostly cleared and it allows for optimisation of operations. Richard Kirwood said that various alternatives had been considered and that placing the infrastructure to the west of the mine may sterilise a potential coal resource in that direction. Bob McGregor said to let the creek flow where it wants to because that area is a huge area for recharge. Bart Crosby said it is a major intersection for flood waters. Bob McGregor said if we place the infrastructure on the floodplain the natural water flow directions would be interrupted and there would be potential for flows to impact on property and livelihoods. Danny said Whitehaven would look at the

proposed location in terms of surface water flows and operational requirements, and that a number of options would be considered for infrastructure location in the Environmental Assessment process.

- 2.10.** Bob McGregor said he thinks the proposed infrastructure area on the flood plain is a more critical issue than the diversion upstream. He said interfering with the flood plain will do two things – divert the water from where it needs to go plus prevent recharge.
- 2.11.** Bob McGregor suggested using the cleared country behind Bollol Creek Station as an alternate location for infrastructure.
- 2.12.** Bart Crosby said that Whitehaven hasn't seen a major flood since the mine started. Danny asked whether any community members had photos or records of floods that Whitehaven would be able to view. Bob McGregor said there are photos he can provide.
- 2.13.** Ken Bates said at the end of the day we want to see the generations to continue farming. He said it's on his agenda and it should be on everyone's agenda. He said we have to look after the future and that mines come and go but it's our responsibility to protect the environment or make it better.
- 2.14.** Bart Crosby and Bob McGregor acknowledged that the proposed area for mining is not farming country.
- 2.15.** Ken Bates asked for a copy of the presentation to be attached to the newsletter. Bart Crosby asked if we could leave the newsletters in a public place but the committee agreed that they are best distributed by the CCC members who would be able to better explain what is proposed and that the proposal may change. Brian Cullen explained this is why we have the community information day closer to submission of the EA when the specialists have done their studies and the company will have a defined project to enable informed discussion and response.
- 2.16.** Bart Crosby asked if there would be any advertising in papers etc. Danny said Whitehaven will advertise the community day. Brian Cullen said DoP will also advertise the PEA and EA. Richard Kirwood explained that there are specific steps that DoP follow.
- 2.17.** Ken Bates said that today's presentation was a key step to the community knowing what is going on. Bart Crosby said this is why the CCC wants to be involved from an early stage and to be in discussions with the mine in order to answer queries from the community.
- 2.18.** Danny Young said an update would be provided at the next CCC meeting
- 2.19.** Richard Kirwood explained that in the proposal established in the PEA, Whitehaven has already reconfigured part of the project to avoid

diversion of a section of the creek located south of the current project area.. Brian Cullen said this refinement, which limits dumping to the south will have greater cost implications on the company as we will need more trucks to haul a greater distance but it will be better for the project. It was also noted that changes in one aspect of the project could have implications in other areas. ie making the dump higher to reduce footprint could have implications on noise propagation.

- 2.20.** Ken Bates asked if the conveyor to Boggabri Coal is the preferred option. Brian Cullen said that it is but the mine would still require ongoing road transport in case of issues with the conveyor. It was identified that it was in no-one's interest to create multiple CHPP's or feed points in the area, and it was on this basis that discussions are currently being held with Boggabri Coal in relation to access to their proposed CHPP and rail loop, but they are commercial in confidence and not guaranteed at this stage.
- 2.21.** Bart Crosby asked what impact this extension will have on the already approved operations (eg. the 6m high bund wall). Danny said once we do the impact assessment, we will need to review all approved measures and alter them as required depending upon the outcomes of modelling and required measures to mitigate impact.
- 2.22.** Bart Crosby raised concern about the large surface area of exposed material on the waste dumps and the inability to water the whole dump thereby resulting in dust lift off. Richard Kirwood said that DoP placed contemporary conditions in the recent modification including real time air quality monitoring so we will get good information from that in terms of dust levels and mitigation strategies.
- 2.23.** Colleen Fuller declared a non-pecuniary interest – Namoi Conservation Advisory Committee. She asked where the mine sits with Zone 3 for conservation and referenced discussions with Boggabri Coal. She said she would discuss Aboriginal issues with Whitehaven as the project develops.
- 2.24.** Colleen Fuller said that the newsletter will be good.
- 2.25.** Bob McGregor said the presentation had been good. He said it probably should have happened earlier but acknowledged that the information wasn't available.
- 2.26.** Bart Crosby asked if the CCC members were allowed to discuss this information in public. Brian Cullen said that the PEA is with DoP and it will soon be advertised and placed on the Department's website so there is no issue with discussing the information.
- 2.27.** Danny Young provided a plan showing mining leases in the Gunnedah area.
- 2.28.** Ken Bates asked about Vickery operations. Brian Cullen said that the lease runs out in 2012 so the Company would have to have done

something by then. Whitehaven is only doing baseline studies at the moment.

### 3. Site Tour

- 3.1. Bob McGregor suggested that the infrastructure should be kept on the northern side of the creek.
- 3.2. Sandy Bull said it would be shorter to cart the coal down Dripping Rock Road.
- 3.3. Ken Bates asked if the current area of farming land would be returned once mining had ceased because it is a large area to lose. Bob McGregor said that part of it would be within the pit. Danny Young said that the mine will be required to rehabilitate some of the area back to woodland and some to agricultural land.
- 3.4. Ken Bates said the proposed creek diversion has really got him worried.
- 3.5. Bart Crosby asked if the Bollol Creek Station residence would stay. Danny Young said it would as it is outside the pit limit.
- 3.6. Bob McGregor suggested that the creek diversion could flow into the existing depression adjacent to the creek (on the other side of the road). Richard Kirwood said that the surface water specialists (Gilbert and Associates) would look at this option. Bob said then it might recharge in that area. Richard suggested that the diversion could be a more defined drainage line at the start and then allow it to open out into a shallow waterway.

Meeting closed at 12:30pm.

..... / /  
Ken Bates - Chairman

# Tarrawonga Community Consultative Committee

## Tarrawonga Coal Project - Overview

2 March 2010



**WHITEHAVEN COAL**

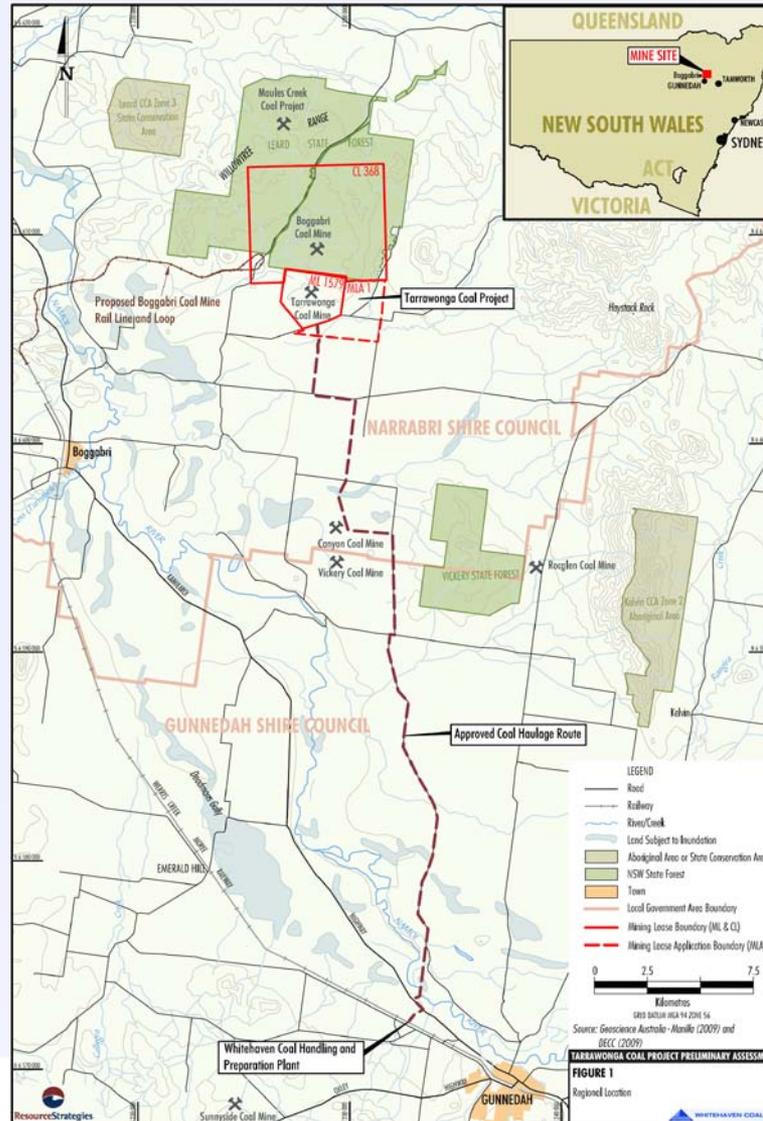
# Agenda

- Background – Existing/Approved Tarrawonga Coal Mine
- Project Description
- Environmental Assessment Studies
- Project Consultation
- Project Timeframe

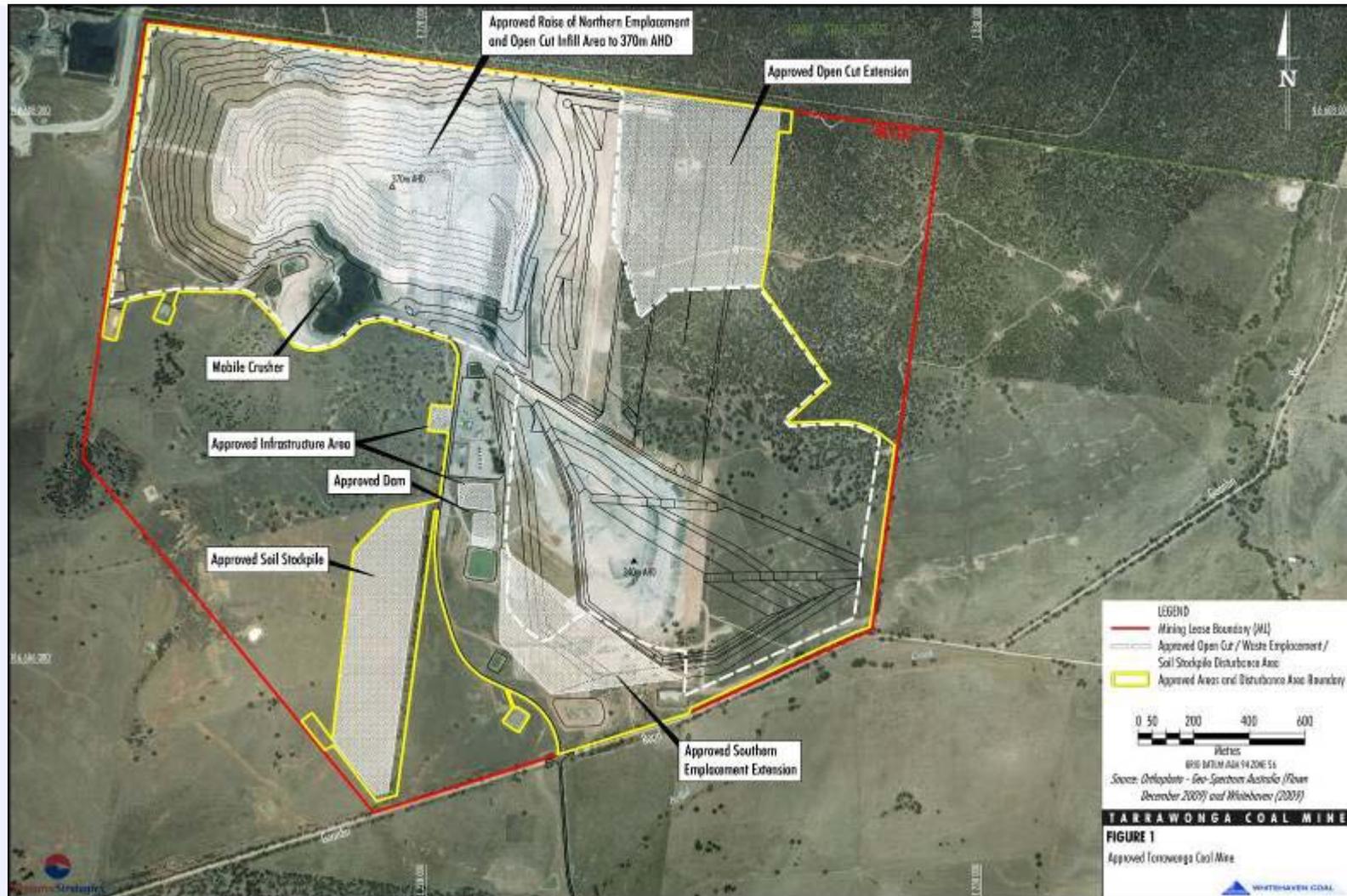
# Existing Tarrawonga Coal Mine

- Approximately 70 full time employees.
- Joint Venture between Whitehaven Coal (70%) and Idemitsu Boggabri Coal (30%).
- Approved in November 2005.
- Modified in 2010.
- Approved mine life 8-10 years.
- Max. 2 Mtpa open cut mining.

# Existing Tarrawonga Coal Mine



# Existing Tarrawonga Coal Mine



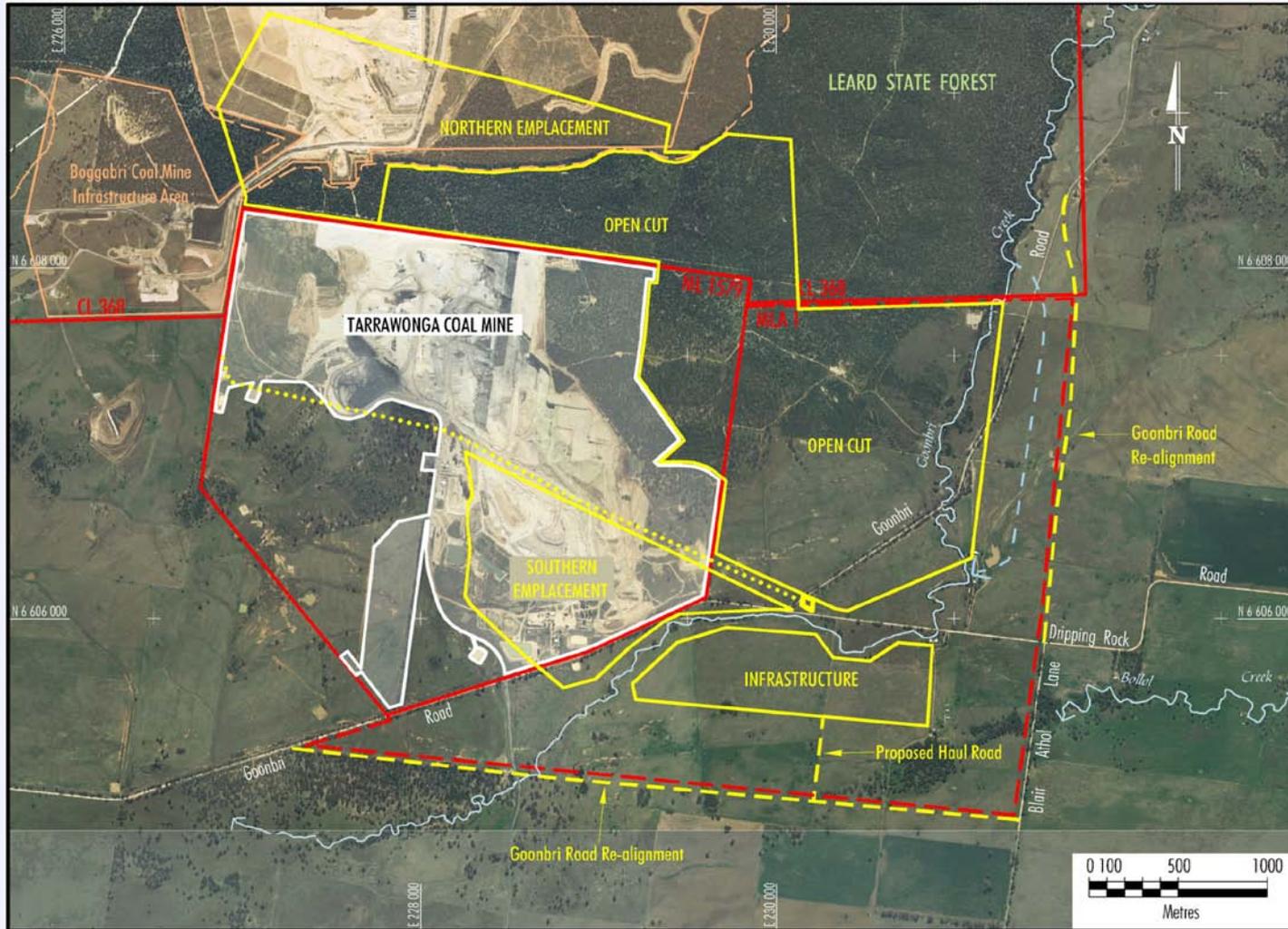
# Project Description

- Continued and increased employment:
  - Approx. 120 full time jobs at full development.
  - Approx. 20 temporary construction jobs.
- Extension of open pit to east (1500 m) and north (400 m).
- Approx. additional 40 Mt of coal (life of mine 55 Mt).
- Increase total mine life from 8-10 years to 23 years.

# Project Description (Cont.)

- Increased coal production to 3 Mtpa.
- Majority of coal to be transported off-site by road to Gunnedah and/or via conveyor to the Boggabri Coal Mine.
- Mobile crushing and screening plant for domestic coal and gravel production.
- Extension of existing emplacement areas.
- Estimated Project capital cost is \$65 million.

# Project Description (Cont.)



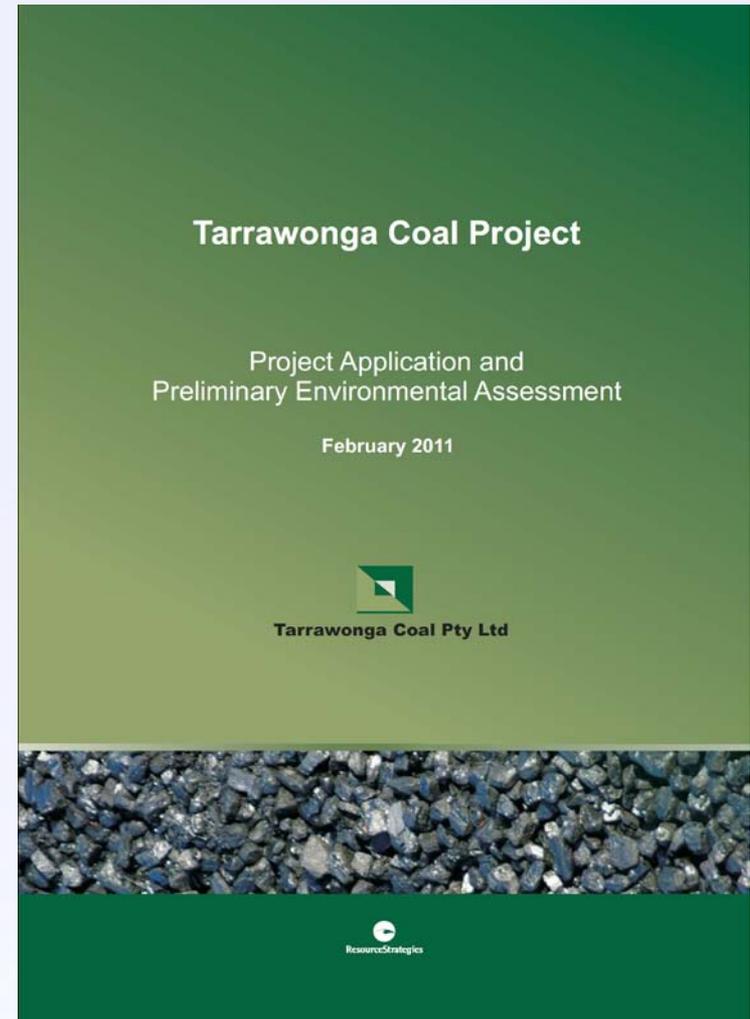
# Project Description (Cont.)

- Several emplacement design concepts considered:
  - Extending Southern Emplacement south east across Goonbri Creek.
  - Extending Southern Emplacement south west onto mostly cleared land within ML 1579.
  - Raising current emplacements above the approved maximum of 370 m.
  - Extending Northern Emplacement north and integrating it with the nearby Boggabri Coal Mine emplacement.
- Economic, agricultural and ecological factors considered in review.
- Consultation with Department of Planning and Idemitsu undertaken.
- Selected emplacement design concept involves infilling the valley located between the Tarrawonga open cut and the planned final emplacement at the Boggabri Coal Mine.



# Environmental Assessment Studies

- Surface Water
- Groundwater
- Terrestrial Flora and Fauna
- Aquatic Ecology
- Noise and Blasting
- Air Quality
- Road Transport
- Aboriginal and Non-Aboriginal Heritage
- Socio-Economic
- Visual
- Waste Geochemistry
- Rehabilitation
- Preliminary Hazard Analysis
- Environmental Risk Assessment



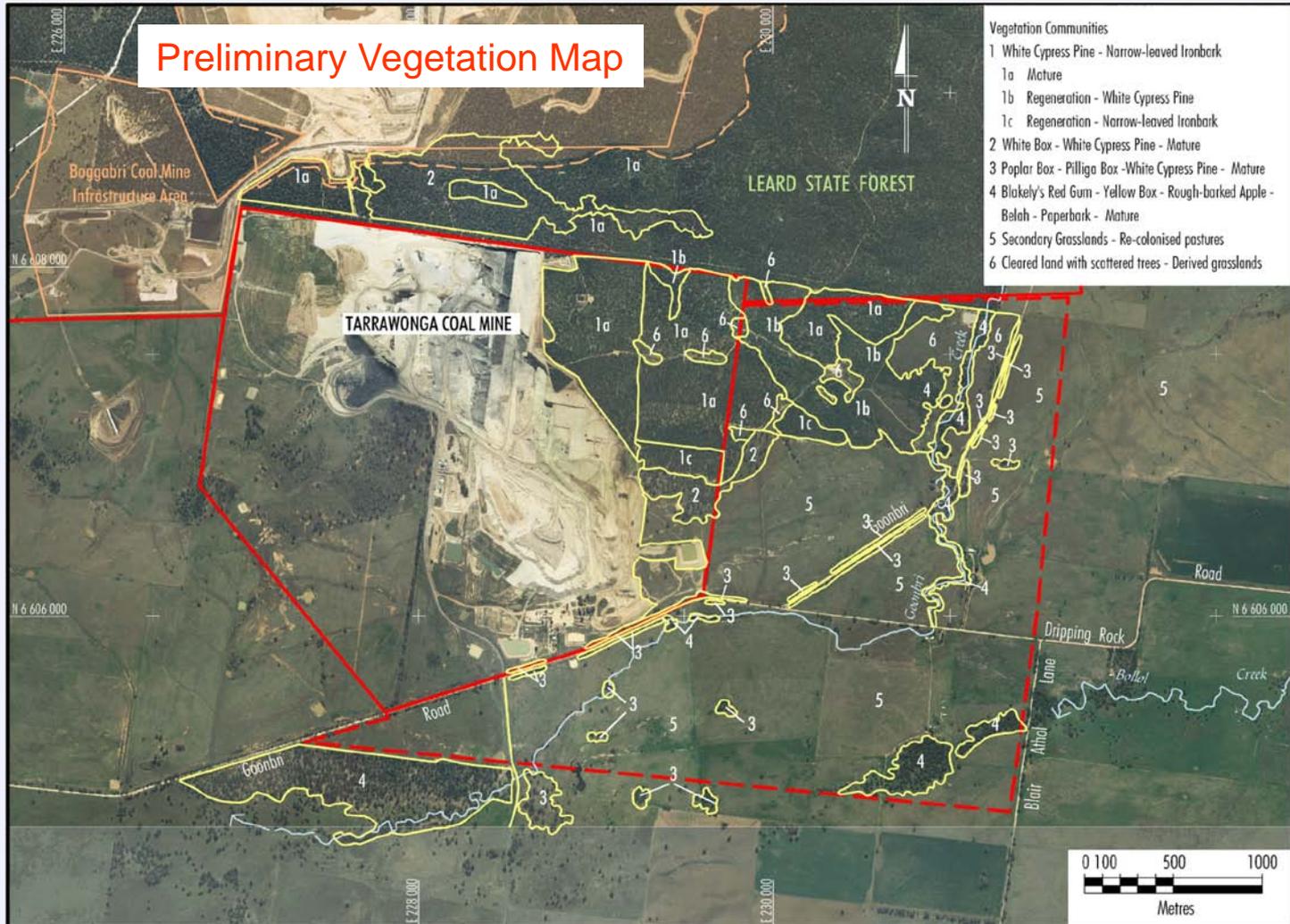
# Environmental Assessment Studies

- **Surface Water and Groundwater**
  - Groundwater Assessment.
    - o Dr. Noel Merrick. Heritage Computing
  - Surface Water Assessment.
    - o Mr. Lindsay Gilbert. Gilbert & Associates.
  - Characterise existing surface water and groundwater resources.
  - Assess potential effects of project, including need for Goonbri Creek diversion, effects on local and regional aquifers and registered bores.
  - Cumulative assessment of Boggabri and Maules Creek Projects.
  - Assess need for additional water supply.
  - Consider measures to avoid, minimise, manage and remediate.

# Environmental Assessment Studies

- **Flora and Fauna Assessments**
  - Terrestrial Flora
    - o Dr. Colin Bower. FloraSearch
  - Terrestrial Fauna and Aquatic Ecology
    - o Professor. David Goldney. Cenwest Environmental Services
  - Compile baseline information, including results of local and regional studies.
  - Undertake targeted surveys across study area (Flora: December 2010, January-February 2011. Fauna: January and March 2011).
  - Assess potential effects on flora and fauna ecosystems.
  - Cumulative assessment of Boggabri and Maules Creek Projects.
  - Consider measures to avoid, minimise, manage and remediate effects.
  - Develop offsets for unavoidable impacts.

# Environmental Assessment Studies



# Environmental Assessment Studies

- **Noise, Blasting and Air Quality Assessments**
  - Noise and Blasting Assessment – Wilkinson Murray.
  - Air Quality – PAE Holmes.
  - Identify increased or additional noise/dust sources (e.g. extending open pit and waste emplacement).
  - Undertake predictive modelling of Project.
  - Cumulative assessment of Boggabri and Maules Creek Projects.
  - Additional attenuation measures and monitoring.

# Environmental Assessment Studies

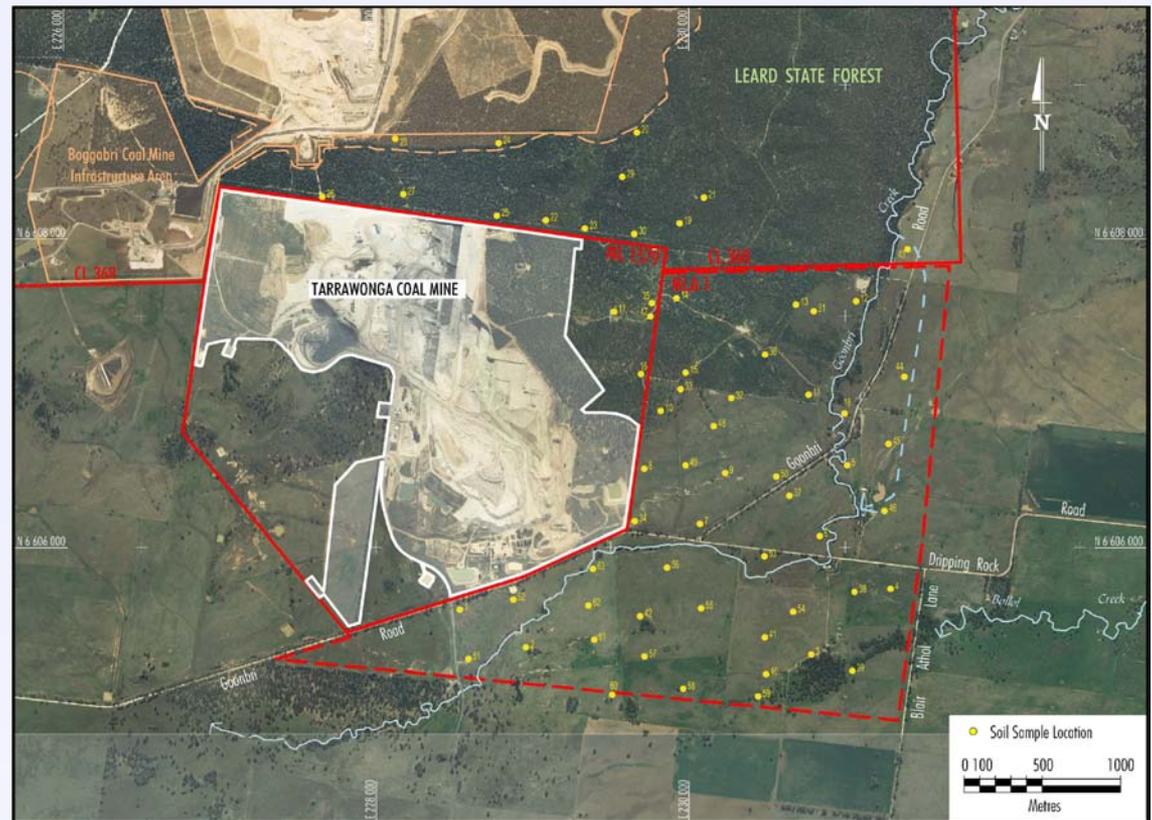
- **Road Transport Assessment**

- Consultation with RTA, local councils and other stakeholders.
- Collate existing traffic data and undertake additional traffic counts.
- Review of road and intersection conditions and capacities.
- Cumulative assessment of Boggabri and Maules Creek Projects.
- Transport assessment by specialist road engineer.

# Environmental Assessment Studies

- **Soils, Land Capability/Agricultural Suitability Assessment.**

- Dr. David McKenzie (McKenzie Soil Management Pty Ltd).
- Mapping of soil types.
- Assessment of land capability and agricultural suitability.
- Use for rehabilitation planning.
- Consideration of offsets.



# Environmental Assessment Studies



Pit 27: Leard State Forest.

- 63 soil pits locations across study area.
- Pits to 1.5m and 3m at each location.
- Soil samples collected for laboratory analysis.



Pit 63: Agricultural land near Goonbri Creek.

# Project Consultation

- WHC to provide newsletters, updates, briefings on key findings of studies prior to finalisation and lodgment of Environmental Assessment (EA).
- Community Meeting during development of the EA and environmental studies.
- Additional CCC meeting(s) prior to EA lodgment.
- Ongoing consultation with regulatory stakeholders throughout EA process.
- All interested stakeholders to be provided with a copy of the finalised EA for review and comment.
- EA comments to be provided to Department of Planning.
- WHC to respond to all EA comments.
- Department of Planning review EA, comments and responses – Minister makes a determination.

# Project Timeframe

- Q1 2011 – Lodge Project Application and preliminary environmental assessment (28 February 2011).
- Q4 2010 to Q3 2011 – Undertake baseline studies and prepare Environmental Assessment.
- Q4 2011 – Lodge Environmental Assessment.
- Q3 2012 – Minister for Planning Determination.

**THANK YOU**

# Minutes of the 21<sup>st</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee

**Meeting Held:** 4<sup>th</sup> May 2011 at 10:00am

**Venue:** Tarrawonga Coal Mine, Training Room

## 1.0 Present and Apologies

**Present:** Cllr Ken Bates (Narrabri Shire Rep), Chairman  
Mr Danny Young (Environmental Manager)  
Mr Bart Crosby (Community Rep)  
Mr Peter Laird (Community Rep)  
Mr Tim Muldoon (Community Liaison Officer)  
Mr Sandy Bull (Community Rep)

**Apologies:** Mr Jason Conomos (Project Manager)  
Mr Bob McGregor (Community Rep)  
Ms Jill Scealy (Environmental Officer)  
Cllr Colleen Fuller (Gunnedah Shire Rep)

## 2.0 Previous Minutes

Minutes of the previous meeting were adopted as a true record on the motion of Sandy Bull and Bart Crosby.

## 3.0 Business Arising

- 3.1 Ken Bates advised that the fight continues with regard to the royalties for regions campaign, and that there has been general disappointment with the Coalition governments proposed \$40m/year over four years. The matter will continue to be discussed and progressed through the Mining Related Councils.
- 3.2 John Molloy from Toll was not present at the meeting so unable to obtain update from John on the trial of longer shifts for Toll drivers. John will be invited to attend the next CCC meeting to provide an update to the committee. Sandy Bull raised the matter of other trucks (not Toll) using exhaust brakes at the corner of the haul road and Manilla Road, particularly those at 12 and 2am in the morning. It was not known if these trucks were related to Tarrawonga operations or not. Danny to investigate general timing of fuel deliveries to Tarrawonga to determine if it could be fuel trucks.
- 3.3 Ken Bates advised that he had received a response from the RTA following the CCC letter outlining concerns in relation to the design and traffic dangers associated with the Kamilaroi Highway and intersections off Blue Vale Road and into the CHPP. The RTA advised that the upgrade undertaken was to required RTA standard, but they would consider the concerns raised. No timeframe was given on a response.

- 3.4 Ken Bates advised that some works had been done in the area on unsealed roads by NSC since the committee's letter. Bart Crosby advised that they did not do anything with the worst section of Manilla Road and that it required urgent attention. It was moved by Bart Crosby and seconded by Sandy Bull that a further letter issue to Council on this matter. Danny asked if there was any response from Council on the installation of speed signs on the road. Ken Bates advised that it had not been raised but would be in subsequent communications.
- 3.5 The newsletter has been issued to surrounding landholders. Danny advised that he had only received one call in relation to the identified bore census. The committee members indicated that they had not received any comment or questions.
- 3.6 The special CCC meeting was held presenting the Tarrawonga extension proposal. A subsequent field investigation was also undertaken by Bob McGregor, Bart Crosby and Ken Bates with Danny Young, Lindsay Gilbert (Gilbert & Associates) and Sean Konings (Gilbert & Associates) to understand surface water flow paths and drainage in the area. Bart and Ken indicated that they felt the field survey was well worthwhile and that it was pleasing the information provided on the day has been considered and incorporated into a drainage plan that will be a component of the Environmental Assessment for the project.
- 3.7 Danny confirmed that the matter of lighting plants had been discussed with the Project Manager and OCE's. Both Bart and Sandy indicated that they had noticed an improvement in light positioning.

## **4.0 General Business**

### **4.1 Mine Progress Report**

In the absence of Project Manager, Jason Conomos, Danny Young reported February – April 2011 production results as follows:

4.46 million BCM overburden removed  
274,000 tonnes of coal recovered

The rehabilitation status remains unchanged since the last meeting because of the increasing height of the waste emplacement as per the 2010 modification approval.

## 4.2 Environmental Monitoring Report

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

## 5.0 New Business

- 5.1 Bart Crosby asked about the groundwater investigation program and whether it included shallow monitoring bores to address the issue of shallow groundwater which is of paramount importance to surrounding landholders. Danny indicated that this matter would be discussed with the groundwater consultants to ensure it is considered in the assessment and investigation program.
- 5.2 Peter Laird raised the issue of the "Willeroi" property recently purchased by Whitehaven and indicated it was of historical significance as it is believed there may be grave sites on the property. Danny Young advised that Whitehaven had no intention of disturbance on the property as it was for offset purposes. Danny also asked if Peter could obtain any information in relation to the location of grave sites so the matter could be appropriately investigated.
- 5.3 It was raised that Toll trucks were dirty again to the point that it was impossible to identify the truck by their truck number. Danny advised that the matter would be addressed with Toll.
- 5.4 Ken Bates raised the prospect of holding a joint committee meeting with Boggabri Coal, at least once per year, in order for the committee to understand and discuss matters pertinent to both operations, including cumulative impacts. Ken to discuss option with Boggabri Coal.

## 6.0 Complaints

Complaints were discussed in the Environmental Monitoring Report.

## 7.0 Next Meeting

The next meeting will be held at the Tarrawonga Coal Mine Training Room on Wednesday 3<sup>rd</sup> August 2011 at 10:00am.

Meeting closed at 11:25 am.

..... / /  
Ken Bates - Chairman

# Tarrawonga Coal Mine Community Consultative Committee Meeting #21

## Environmental Monitoring Report February – April 2011

### Noise Monitoring

Noise monitoring was undertaken on Monday 14<sup>th</sup> and Tuesday 15<sup>th</sup> March 2011 as per requirements under the consent. Results from the monitoring are outlined below:

<b>TCM Noise Monitoring Results – 14 March 2011 (Day) (Ambardo and Pine Grove on 15 March)</b>				
<b>Location</b>	<b>Time</b>	<b>dB(A),Leq (15 min)</b>	<b>Wind speed/ direction</b>	<b>Identified Noise Sources</b>
Bollol Ck Station	4:27 pm	40.9	1.3 m/s, E	Birds (41), <b>TCM (&lt;25)</b>
Tarrawonga	4:23 pm	39.0	2-3 m/s SE	Wind (37), Birds (34), <b>TCM (&lt;25)</b>
Ambardo	7:19 am	54.7	Calm	Birds (54), <b>TCM (37)</b> <sup>1</sup>
Pine Grove	7:01 am	46.7	Calm	Birds (45), traffic (39), <b>TCM (39)</b> <sup>1</sup>

<sup>1</sup> Trucks on private section of haul road.

<b>TCM Noise Monitoring Results – 14 March 2011 (evening)</b>				
<b>Location</b>	<b>Time</b>	<b>dB(A),Leq (15 min)</b>	<b>Wind speed/ direction</b>	<b>Identified Noise Sources</b>
Bollol Ck Station	8:55 pm	36.8	4.1 m/s, SE	Wind (36), <b>TCM inaudible</b>
Tarrawonga	9:30 pm	42.8	3.5 m/s, ESE	Wind (40), insects (39), <b>TCM inaudible</b>
Ambardo	7:44 pm	40.5	1.5 m/s, SE	Birds & insects (40), <b>TCM (&lt;25)</b> <sup>1</sup>

<sup>1</sup> Trucks on private section of haul road.

<b>TCM Noise Monitoring Results – 14 March 2011 (night)</b>				
<b>Location</b>	<b>Time</b>	<b>dB(A),Leq (15 min)</b>	<b>Wind speed/ direction</b>	<b>Identified Noise Sources</b>
Bollol Ck Station	11:51 pm	38.6	0.9 m/s, S	Insects (36), wind (34), <b>TCM inaudible</b>
Tarrawonga	12:14 am	41.2	1.9 m/s, SSE	Wind (40), insects (35), <b>TCM inaudible</b>
Ambardo	10:38 pm	40.0	1.5 m/s, SE	Insects (40), <b>TCM inaudible</b>

The results show that noise emissions from operations associated with the mine were higher than the operational noise criterion of 35 dB(A), $L_{eq(15min)}$  at the monitoring locations of “Ambardo” and “Pine Grove” during the day survey. The noise at “Ambardo” and “Pine Grove” was due to emissions from trucks travelling on the private section of the haul road. On the basis of private agreements with the residents of the two properties, this is not considered a non-compliance.

In addition to the operational noise, the noise from the mine must not exceed 45 dB(A), $L_1(1min)$  between the hours of 10 pm and 7 am. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the mine.

During the night time measurement circuit the  $L_1(1min)$  noise from the mine did not exceed 45 dB(A) at any monitoring location.

## **Blast Monitoring**

### **Blasting Results**

Since the first shot there have been 282 blasts (until 19<sup>th</sup> of April 2011).

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

To date, the highest overpressure recorded remains at 117.0 dB recorded at “Bollo Creek Station” on the 5<sup>th</sup> July 2007. The highest ground vibration recorded is 2.88 mm/s recorded at “Templemore” on the 25<sup>th</sup> October 2010.

## **Air Quality**

### **Air Quality (Dust Deposition) Results**

MONTH	TEMPLEMORE (EB-4)	BOLLOL CREEK STN (EB-5)	AMBARD (EB-6)	TARRAWONGA (EB-7)	THUIN (EB-8)	PINE GROVE (EB-9)	TARRAWONGA MINE (EB-10)	TARRAWONGA MINE (EB-11)	PINE GROVE (EB-12)
April 2010	4.9	1.4	1.0	0.8	3.3	0.5	1.2	0.9	3.5
May 2010	3.3	2.9	1.2	0.7	1.8	0.5	0.8	0.9	0.6
June 2010	3.0	3.8	0.4	0.4	3.0	0.4	2.1	2.9	1.0
July 2010	1.2	1.5	0.3	0.4	0.3	1.9	0.8	1.3	0.5
August 2010	1.3	1.4	1.1	0.5	1.9	0.7	0.7	0.9	0.2
September 2010	0.9	2.1	0.7	0.8	1.5	0.6	3.6	2.1	0.7
October 2010	1.6	4.8	1.0	1.3	2.6	0.9	4.5	1.4	0.7
November 2010	0.9	1.7	0.8	1.0	3.0	0.7	28.3	2.3	1.2
December 2010	8.2	2.0	0.6	1.2	3.4	0.6	6.8	2.4	1.8
January 2011	0.2	1.7	0.7	1.0	1.9	0.5	2.6	2.3	1.3
February 2011	13.1	4.3	1.2	1.1	6.6	1	2.6	2.7	1.3
March 2011	10.2	2.5	0.5	0.7	3.3	0.5	2.4	1.6	2.7
<b>ANNUAL AVERAGE</b>	<b>4.1</b>	<b>2.5</b>	<b>0.8</b>	<b>0.8</b>	<b>2.7</b>	<b>0.7</b>	<b>4.7</b>	<b>1.8</b>	<b>1.3</b>

Elevated deposited dust results occurred over February and March at EB-4 (13.1 and 10.2g/m<sup>2</sup>/month), this was due to sample contamination (bird droppings and animal matter). This has increased the annual average at EB-4 to 4.1g/m<sup>2</sup>/month. The annual average at EB-10 (Tarrowonga mine) is decreasing month by month with the annual average expected to be back in compliance in the near future. The November result skewed the average of this monitor, which was related to sample contamination. All other monitoring points have an annual average below 4g/m<sup>2</sup>/month. Some minor elevated results were recorded at EB-5 and EB-8, however these sites remain within the annual average compliance limits.

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

The annual average for PM<sub>10</sub> readings is currently at 10.41µg/m<sup>3</sup> (compared to 12.74µg/m<sup>3</sup> 3 months ago), which is well below the annual average limit of 30µg/m<sup>3</sup>. PM<sub>10</sub> levels have remained compliant since the last CCC meeting.

The highest 24hr reading to date is 97µg/m<sup>3</sup> which was recorded on the 8<sup>th</sup> December 2009.

## Water Monitoring

### Ground Water

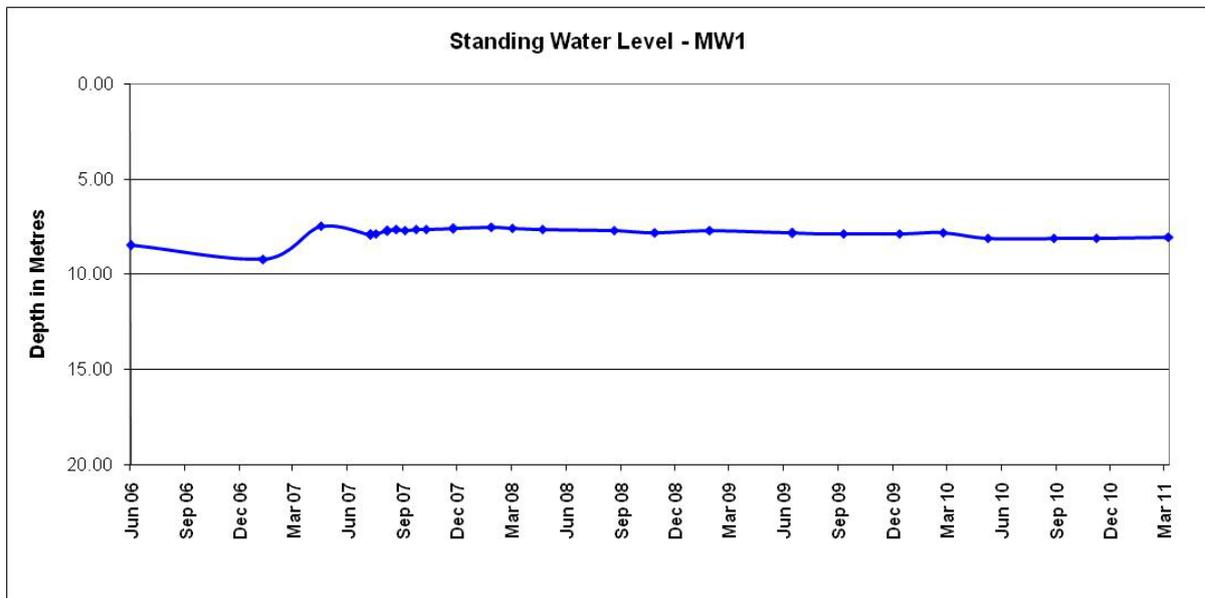
Groundwater monitoring data obtained to date, including the last round of SWL monitoring in March 2011, is presented in the following table. The next round of monitoring is scheduled for June 2011.

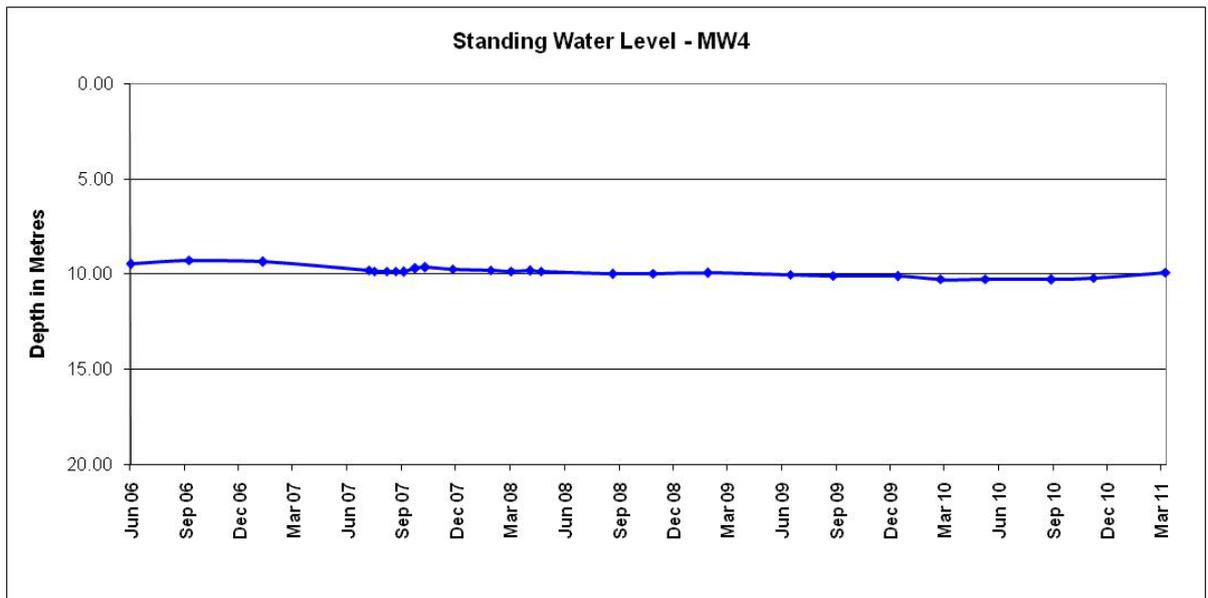
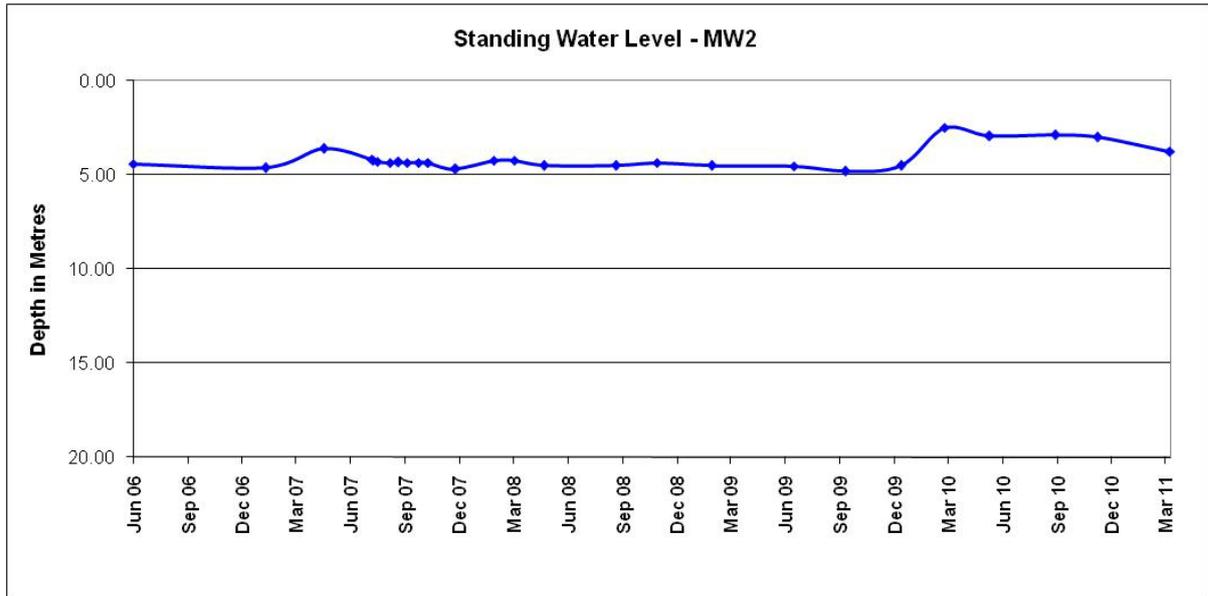
Site	Date	SWL (m)	pH	Elect. Conduct
<b>MW1</b>	January 07	9.22	7.1	2410
	April 07	7.49		
	July 07	7.91	7.3	2500
	August 07	7.66		
	September 07	7.66		
	October 07	7.64		
	November 07	7.62		
	January 08	7.55		
	March 08	7.60		
	April 08	7.67	7.3	3120
	August 08	7.73		
	September 08			
	October 08	7.82	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	
<b>MW2</b>	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				

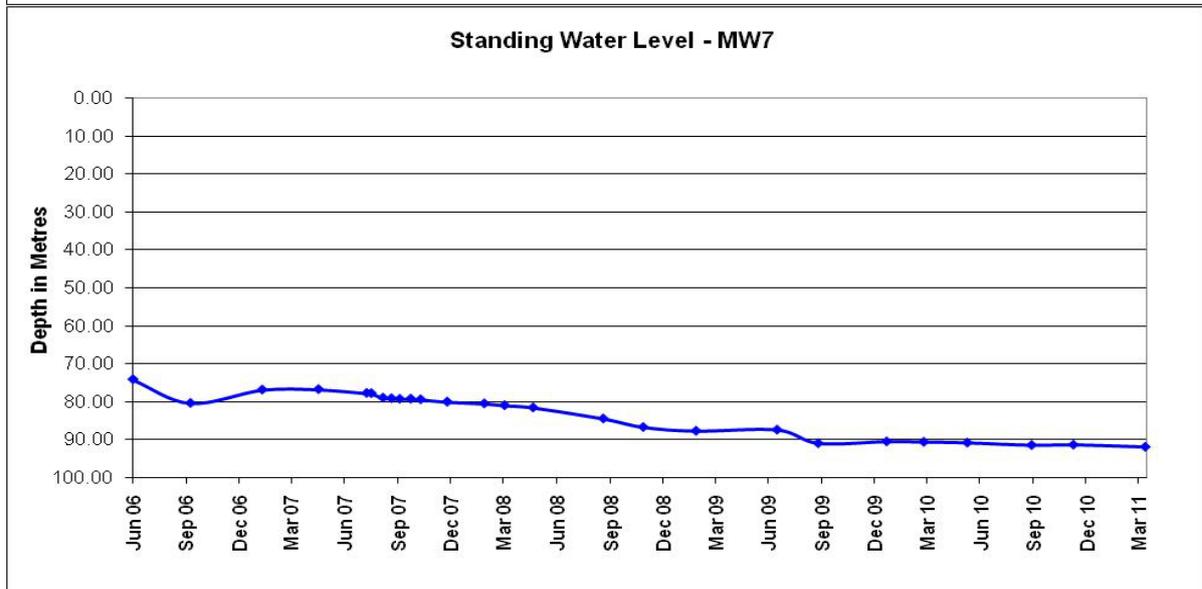
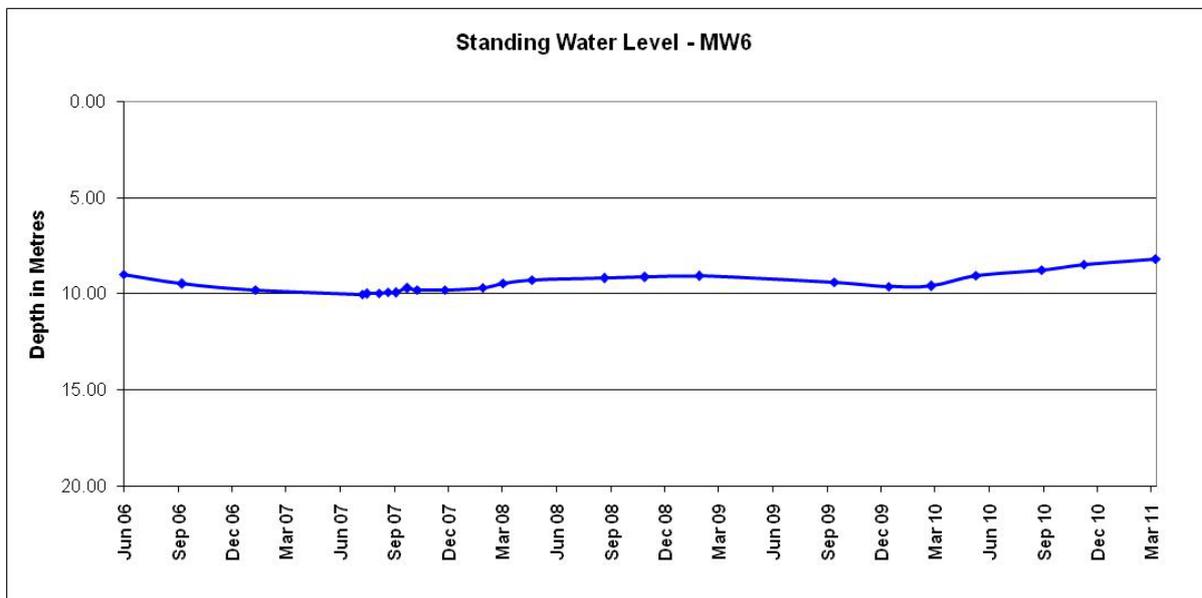
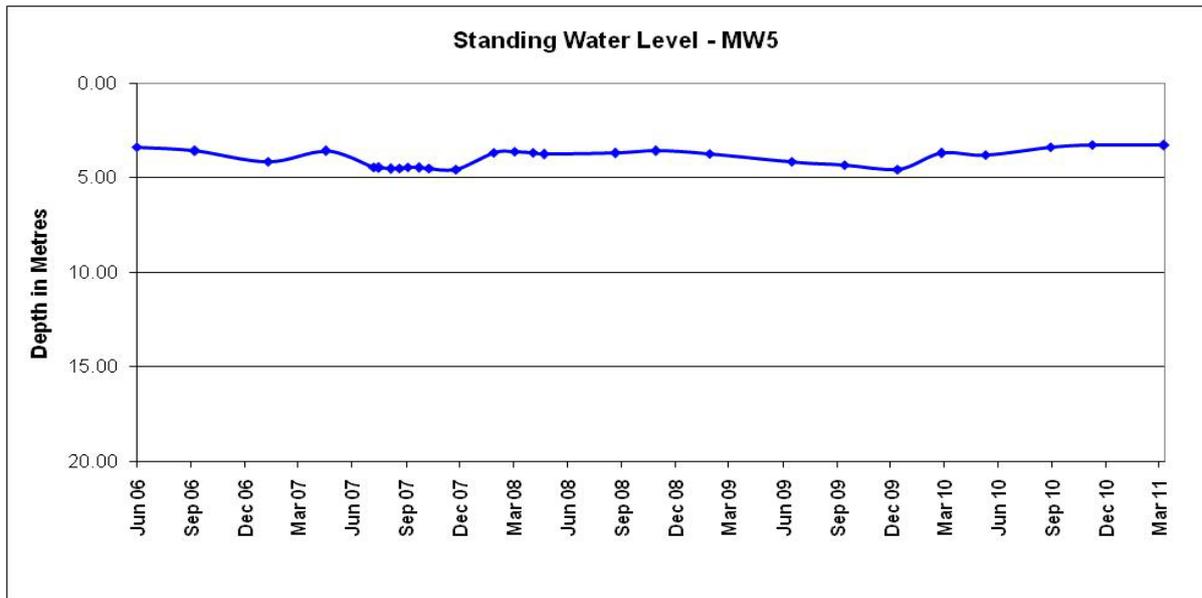
	December 08			
	January 09	4.51		
	June 09	4.53	7.7	660
	September 09	4.8		
	December 09	4.51	7.5	640
	February 10	2.51		
	May 10	2.94		
	August 10	2.89	7.4	590
	November 10	3.01	7.32	513
	March 11	3.75	7.31	566
<b>MW4</b>	September 06	9.25		
	January 07	9.37	7.1	3430
	July 07	9.88	6.8	5400
	August 07	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
<b>MW5</b>	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

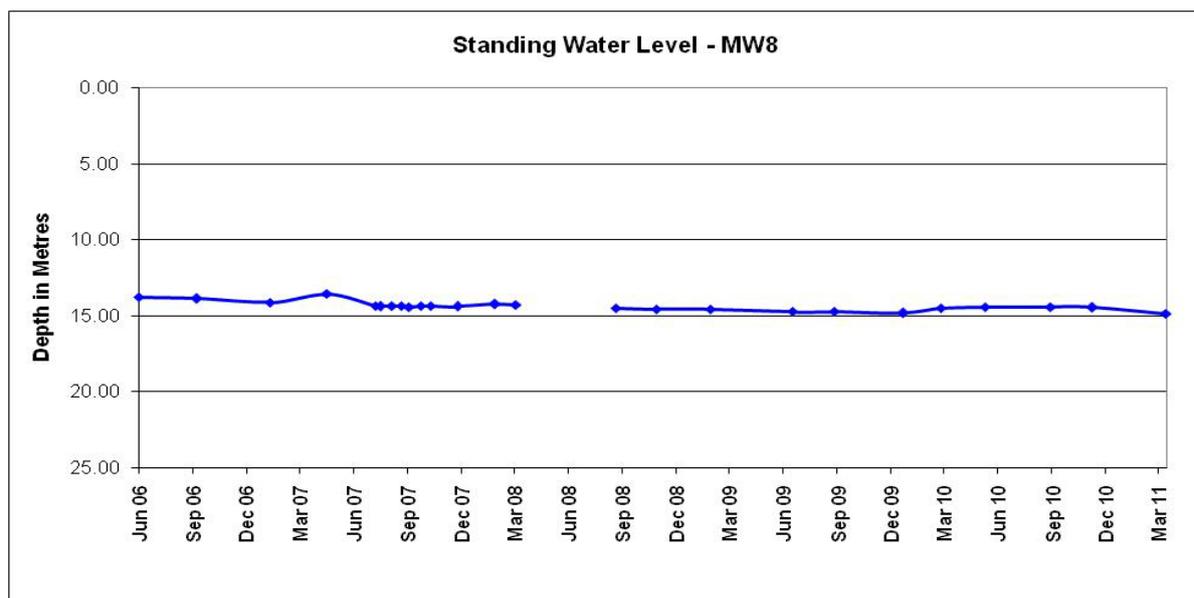
	November 10	3.28	7.35	2620
	March 11	3.31	7.39	1917
<b>MW6</b>	September 06	9.54		
	January 07	9.81	6.9	2030
	July 07	10.01	7.5	2060
	August 07	9.95		
	September 07	9.73		
	October 07	9.82		
	November 07	9.83		
	January 08	9.72		
	March 08	9.48		
	April 08	9.28	7.1	2120
	August 08	9.21		
	September 08			
	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
<b>MW7</b>	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
<b>MW8</b>	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	









The results indicate relatively consistent SWL at all monitoring sites since the last round of monitoring. Sites MW5 and MW6 are continuing to show slight instances of groundwater recharge. 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

Routine surface water monitoring was conducted in March 2010. The results indicated a lower pH reading at SB16 (7.17) and SD16 (8.71), compared to the last round of monitoring where results were elevated. Total suspended solids are generally low in all storages.

No wet weather discharge events have occurred since the last CCC meeting.

### Complaints

Since the last meeting there have been two complaints lodged to the Environmental Manager.

#### **28<sup>th</sup> February 2011**

The complaint was raised from a representative of DECCW via email, on behalf of a local landholder. The complaint was in relation to dust on Friday 25<sup>th</sup> and Monday the 28<sup>th</sup> February from both Tarrawonga and Boggabri Coal. This dust issue was investigated by the Environmental manager, which included talks with site personnel and analysing meteorological data. The conclusion was made that no excessive dust or adverse conditions were thought to be present on the 25<sup>th</sup>, with all dust suppression measures in place, including 3 operational water carts. A temperature inversion may have been present during the night and early morning which prevented dust from dispersing, making the dust more visible during the morning. The 28<sup>th</sup> however was identified as a problematic day, with weather conditions producing high winds of up to 15m/s and average wind speeds of 5m/s along with hot, dry conditions. This caused dust lift off, from

both production and non-production areas. Scraper operations were ceased at 10am on the 28<sup>th</sup> due to these conditions. DECCW were presented with the findings of the investigation via email, from both Tarrawonga and Boggabri Coal.

## **2<sup>nd</sup> March 2011**

The complaint was raised by a representative of DECCW, via email, on behalf of a local landholder. The complaint was in relation to the landholder not being notified of blasting times at Tarrawonga mine. DECCW was contacted and informed that the complainant is contacted the day of the blast via phone call. On occasions, there are times when there is no answer and with no message bank, where a message cannot be left. On other occasions, messages have been left with others who answer the phone, however, it was unknown if the message is being passed on to the landholder. In response, the landholder's mobile phone number was obtained for notification of all future blasts.

### **Rehabilitation**

No rehabilitation has occurred since the last CCC meeting.

The western emplacement continues to be constructed to its approved height. Upon completion of the western emplacement rehabilitation activities will recommence.

## **Minutes of the 22<sup>nd</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee**

**Meeting Held:** 27<sup>th</sup> July 2011, 10am

**Venue:** Tarrawonga Coal Mine, Training Room

### **1.0 Present and Apologies**

**Present:** Clr Ken Bates (Narrabri Shire Rep), Chairman  
Mr Danny Young (Environmental Manager)  
Mr Peter Laird (Community Rep)  
Mr Tim Muldoon (Community Liaison Officer)  
Clr Colleen Fuller (Gunnedah Shire Rep)  
Ms Jill Scealy (Environmental Officer)  
Mr Bob McGregor (Community Rep)  
Mr Jason Conomos (Project Manager)  
Mr Richard Kirwood (Resource Strategies)  
Mr Brian Cullen (Technical Services Manager)  
Mr John Molloy (Project Manager – Toll) (10:30am)

**Apologies:** Mr Sandy Bull (Community Rep)  
Mr Bart Crosby (Community Rep)

### **2.0 Previous Minutes**

Minutes of the previous meeting were adopted as a true record on the motion of Peter Laird and Ken Bates.

### **3.0 Business Arising**

- 3.1 Danny Young and Richard Kirwood delivered a Powerpoint presentation which outlined the progress of the LOM EA over the last few months (attached to these minutes).

Ken Bates asked how many people responded to the request in the newsletter regarding the bore census. Danny said only one person responded but other key properties were targeted and approximately 8 properties were surveyed. Richard advised that the results of the surveys were provided to each landholder. The groundwater model will be quite comprehensive as it will also include publically available data from registered bores and information from Boggabri Coal and Aston Resources.

Bob McGregor asked what work would be done before the realignment of the creek to assess whether the new alignment will still be above the alluvium. Richard explained that the extent of the proposed open cut is within the alluvium as mapped by the Office of Water. Based on the mapping, the new alignment of Goonbri Creek extends further into the identified area of alluvium to the east. Danny discussed the additional drilling and electromagnetic survey that has been undertaken to assist with more accurate determination of the extent of the alluvium as opposed to the broad scale mapping done by NOW.

Bob asked how deep the low permeability barrier will be. Richard said that the deepest drilling to date has been 38m but the electromagnetic survey will provide more comprehensive data when the results become available. Danny explained that the barrier needs to be keyed into the bedrock so the water can't seep below the barrier. Richard noted the Hunter Valley No. 1 mine which has successfully installed a barrier to a similar depth and length as that proposed for Tarrawonga, which also utilised the same barrier construction methodology as proposed for Tarrawonga.

Ken Bates suggested that the committee visit the Hunter Valley to inspect the barrier but it was agreed this would be of little value given the barrier is buried and therefore not visible. Richard said that a paper has been written about the barrier and perhaps this would be a good starting point for providing information to the committee. Danny also advised that the consultants designing the barrier for Tarrawonga will be present at the community meeting to answer any questions the community may have.

Colleen Fuller requested that Gunnedah Shire Council be made aware of the community open day meeting as she believes water is the biggest concern for this area. Danny advised the committee that the Council will be invited to the meeting and notices will be placed in the local paper.

Peter Laird referred to the shallow water table near the boundary of the Templemore and Ambardo properties and questioned whether bores in that vicinity had been surveyed. Danny advised that we had bores in that area that are only a couple of metres deep and all that information has been included in the study. Bob advised Peter that the committee had done a bus tour of the area and that an additional meeting had been held with specific landholders so all of that information had been captured.

Ken Bates said that it is good that the infrastructure area had been relocated away from the flood plain and Bob agreed.

Ken requested a copy of the presentation.

- 3.2 Ken advised that the Mining Related Council was not happy with the offer of \$40 million per year over 4 years and is pushing for 30%. Update to be provided at next meeting.
- 3.3 John Molloy (Toll) advised that there hasn't been any fatigue issues associated with the longer shifts and that the drivers generally finish their 10 loads out of Tarrawonga within 12.5 to 13 hours.
- 3.4 Ken said that he had not issued a letter to NSC regarding the condition of Manilla Road but he had spoken to them in person. It is unlikely that additional speed signs will be installed and the Council is understaffed so it is difficult to get anything done.
- 3.5 Danny advised that the survey of bores had been completed. Vibrating wire piezometers have been installed, drilling has been conducted and an electromagnetic survey has been undertaken with results to be issued in the near future.

- 3.6 In relation to heritage items on "Willeroi", Peter Laird advised that the graves had been moved. Some had been moved to "Melrose" and some to "Coolah". On this basis, it is believed that none of these items remain on "Willeroi".
- 3.7 Ken said the truck numbers are still obscured when the trucks are dirty. John explained the difficulty of keeping the trucks clean, especially after rain, and advised that he is continually investigating ways to have either employees or contractors clean the trucks.
- 3.8 Ken advised that he had been away and hadn't discussed the option of annual joint meetings with Boggabri Coal.

#### **4.0 General Business**

##### **4.1 Mine Progress Report**

Jason Conomos, Project Manager, provided the May and June production results as follows:

3.35 million BCM overburden removed  
337,000 tonnes of coal recovered

The rehabilitation status remains unchanged since the last meeting because of the increasing height of the waste emplacement as per the 2010 modification approval.

##### **4.2 Environmental Monitoring Report**

Danny Young presented the environmental monitoring results which are attached in the Environmental Monitoring Report. He advised that an additional complaint had been received after the report had been finalised which related to the blast on Monday 25<sup>th</sup> July. A written response will be provided to the complainant and OEH with further details provided at the next CCC meeting.

Peter Laird commented that the windy conditions at the time of Monday's blast dispersed dust and fume to his property.

#### **5.0 New Business**

- 5.1 John Molloy advised that Toll had been penalised for having an overweight truck as the inspector from Moree doesn't recognise HML vehicles east of the Newell Highway, even though GSC and NSC does. The committee agreed that a letter should be issued to both Council's requesting clarification of the matter. Ken requested a report from Toll to

assist with the investigation. John to provide the report to Jill and Jill to write letter for Ken to issue to the Councils.

5.2 Jason Conomos advised the committee that Tarrawonga had agreed to donate gravel to the Boggabri Go Cart Club to assist with building of a new track. The gravel, which will be carted free of charge by Toll, will need to be carted all day Sunday for possibly a couple of weekends. Jason asked if any of the committee had concerns and they agreed that it should be permitted as it's for a good cause. Bart Crosby and Sandy Bull will be notified and committee members to advise any surrounding landholders that may be concerned about carting gravel on Sundays.

5.3 Jill provided a hard copy and CD of the AEMR to the CCC which was recently submitted to DTIRIS.

## 6.0 Complaints

Complaints were discussed in the Environmental Monitoring Report, with the exception of the complaint on Monday which is discussed in Section 4.2 of these minutes

## 7.0 Next Meeting

The next meeting will be held at the Tarrawonga Coal Mine Training Room on Wednesday 16<sup>th</sup> November 2011 at 10:00am.

Meeting closed at 11:45 am.

*Ken Bates 16/11/2011*  
Ken Bates - Chairman

# Tarrawonga Coal Mine Community Consultative Committee Meeting #22

## Environmental Monitoring Report May – July 2011

### Noise Monitoring

Noise monitoring was undertaken on 23<sup>rd</sup> and 24<sup>th</sup> June 2011 as per requirements under the consent. Results from the monitoring are outlined below:

TCM Noise Monitoring Results – 23/24 June 2011 (Day)				
Location	Time	dB(A),Leq (15 min)	Wind speed/direction	Identified Noise Sources
Bollol Ck Station	5:10 pm	33	Calm	Birds (33), <b>TCM (23)</b>
Tarrawonga	8:21 am	35	Calm	Cattle (34), <b>TCM (28)</b>
Ambardo	7:59 am	54	Calm	Birds (54), trucks on public road (39), <b>TCM (39)</b> <sup>1</sup>
Pine Grove	8:50 am	50	Calm	Birds (50), trucks on public road (37), <b>TCM (40)</b> <sup>2</sup>

<sup>1</sup> Trucks on private section of haul road 38, mine noise 32.

<sup>2</sup> Trucks on private section of haul road

TCM Noise Monitoring Results – 23 June 2011 (evening)				
Location	Time	dB(A),Leq (15 min)	Wind speed/direction	Identified Noise Sources
Bollol Ck Station	8:41 pm	30	0.5 m/s, NE	<b>TCM (30)</b>
Tarrawonga	6:11 pm	35	0.5 m/s, E	Cattle (34), <b>TCM (28)</b>
Ambardo	6:35 pm	43	0.5 m/s, E	Trucks on public road (39), Birds (36), <b>TCM (39)</b> <sup>1</sup>

<sup>1</sup> Trucks on private section of haul road.

TCM Noise Monitoring Results – 23/24 June 2011 (night)				
Location	Time	dB(A),Leq (15 min)	Wind speed/direction	Identified Noise Sources
Bollol Ck Station	12:35 am	30	<0.5 m/s, SE	<b>TCM (30)</b>
Tarrawonga	10:03 pm	25	0.5 m/s, NE	Cattle (25), <b>TCM inaudible</b>
Ambardo	10:22 pm	30	0.5 m/s, SE	Traffic (28), Wind (25), <b>TCM inaudible</b>

The results show that noise emissions from operations associated with the mine were higher than the operational noise criterion of 35 dB(A), $L_{eq(15min)}$  at the monitoring locations of “Ambardo” and “Pine Grove” during the day survey, and “Ambardo” during the evening survey. The noise levels at “Ambardo” and “Pine Grove” was due to emissions from trucks travelling on the private section of the haul road. On the basis of private agreements with the residents of the two properties, this is not considered a non-compliance.

In addition to the operational noise, the noise from the mine must not exceed 45 dB(A), $L_1(1min)$  between the hours of 10 pm and 7 am. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the mine.

During the night time measurement circuit the L1 (1min) noise from the mine did not exceed 45 dB(A) at any monitoring location.

## **Blast Monitoring**

### **Blasting Results**

Since the first shot there have been 307 blasts (until 14<sup>th</sup> of July 2011).

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

To date, the highest overpressure recorded remains at 117.0 dBL recorded at “Bollol Creek Station” on the 5<sup>th</sup> July 2007. The highest ground vibration recorded is 2.88 mm/s recorded at “Templemore” on the 25<sup>th</sup> October 2010.

## **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 STN (EB13)	TARRAWONGA MINE (EB14)	TARRAWONGA MINE (EB15)	JERALONG NORTH (EB16)
July 2010	1.2	1.5	0.3	0.4	0.3	1.9	0.8	1.3	0.5	2.0	2.5	3.2	0.4
August 2010	1.3	1.4	1.1	0.5	1.9	0.7	0.7	0.9	0.2	0.8	0.8	2.5	0.2
September 2010	0.9	2.1	0.7	0.8	1.5	0.6	3.6	2.1	0.7	4.1	1.2	6.4	3.1
October 2010	1.6	4.8	1.0	1.3	2.6	0.9	4.5	1.4	0.7	0.9	9.1	3.2	2.0
November 2010	0.9	1.7	0.8	1.0	3.0	0.7	28.3	2.3	1.2	1.2	1.9	4.6	2.5
December 2010	8.2	2.0	0.6	1.2	3.4	0.6	6.8	2.4	1.8	23.7	1.9	1.5	1.5
January 2011	0.2	1.7	0.7	1.0	1.9	0.5	2.6	2.3	1.3	2.0	2.1	4.2	0.7
February 2011	13.1	4.3	1.2	1.1	6.6	1	2.6	2.7	1.3	3.3	1.6	2.0	2.1
March 2011	10.2	2.5	0.5	0.7	3.3	0.5	2.4	1.6	2.7	3.5	2.8	7.2	1.6
April 2011	10.7	1.6	0.5	0.4	3.6		0.9	2.8		2.1	1.1	10.6	1.8
May 2011	1.6	6.3	0.7	0.7	2.3	0.9	1.6	0.6	1.0	0.5	1.0	2.4	1.4
June 2011	3.3	1.5	0.7	0.8	6.5	0.4	0.6	1.0	1.3	2.5	1.2	2.6	2.2
<b>ANNUAL AVERAGE</b>	<b>3.5</b>	<b>2.6</b>	<b>0.7</b>	<b>0.8</b>	<b>3.0</b>	<b>0.8</b>	<b>4.6</b>	<b>1.8</b>	<b>1.1</b>	<b>3.8</b>	<b>2.2</b>	<b>4.2</b>	<b>1.6</b>

Dust levels over May and June 2011 have generally been within compliance limits, with marginally elevated results at the Bollol Creek Station monitor during May and the Thuin monitor during June. The annual average levels remain compliant at all monitors with the exception of the Tarrawonga Mine monitors EB10 and EB15 which are currently averaging 4.6g/m<sup>2</sup>/month and 4.2g/m<sup>2</sup>/month respectively. As these monitors are on mine owned land and not adjacent to dwellings, the dust criteria do not apply.

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

The annual average for PM<sub>10</sub> readings is currently at 10.83µg/m<sup>3</sup> (compared to 10.41µg/m<sup>3</sup> 3 months ago), and remains well below the annual average limit of 30µg/m<sup>3</sup>. PM<sub>10</sub> levels have remained compliant since the last CCC meeting.

The highest 24hr reading to date is 97µg/m<sup>3</sup> which was recorded on the 8<sup>th</sup> December 2009.

## Water Monitoring

### Ground Water

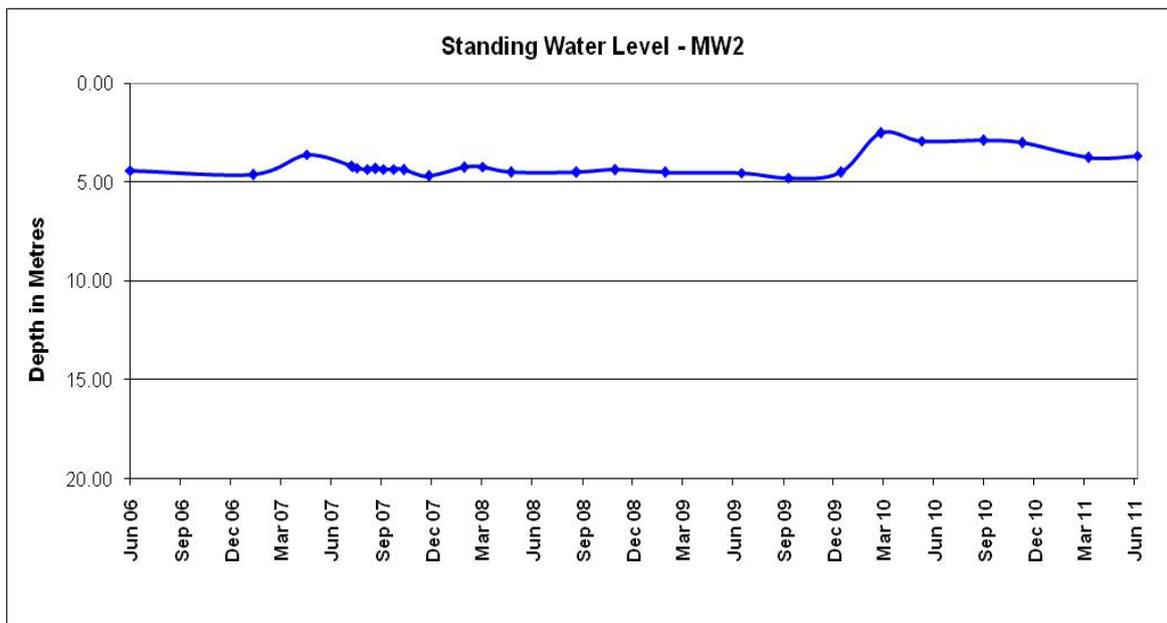
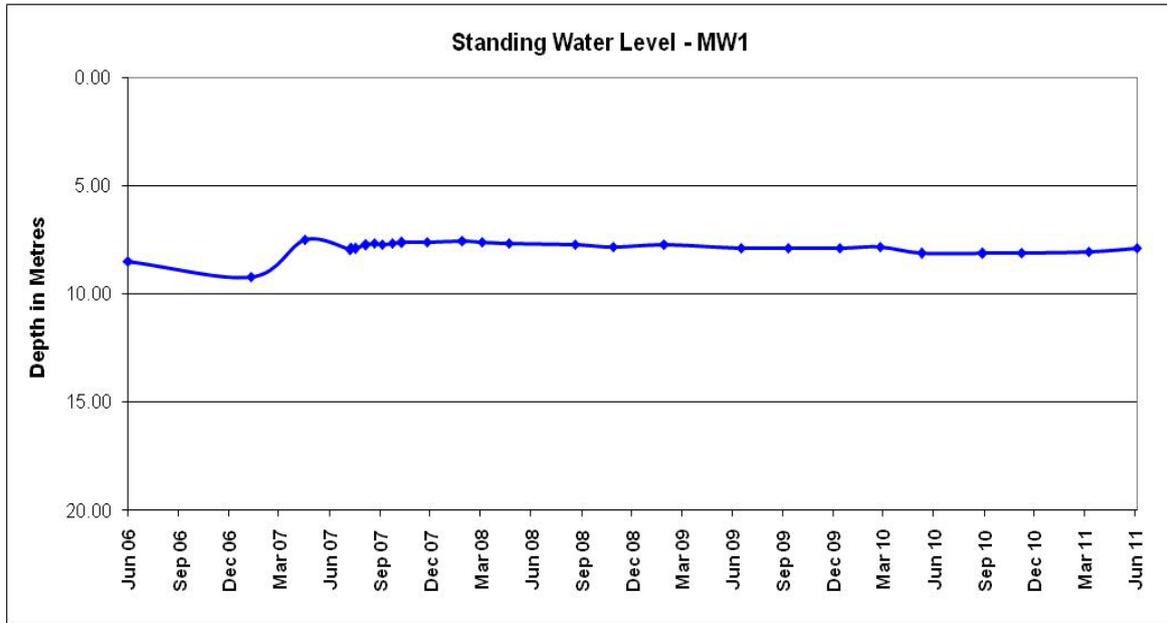
Groundwater monitoring data obtained to date, including the last round of SWL monitoring in June 2011, is presented in the following table. The next round of monitoring is scheduled for September 2011.

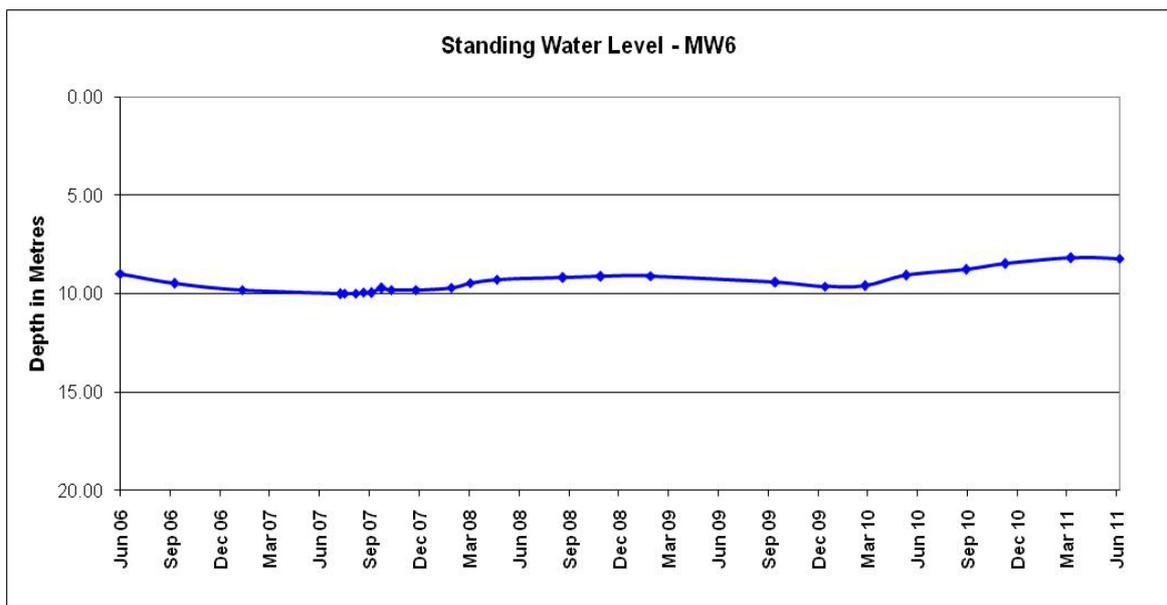
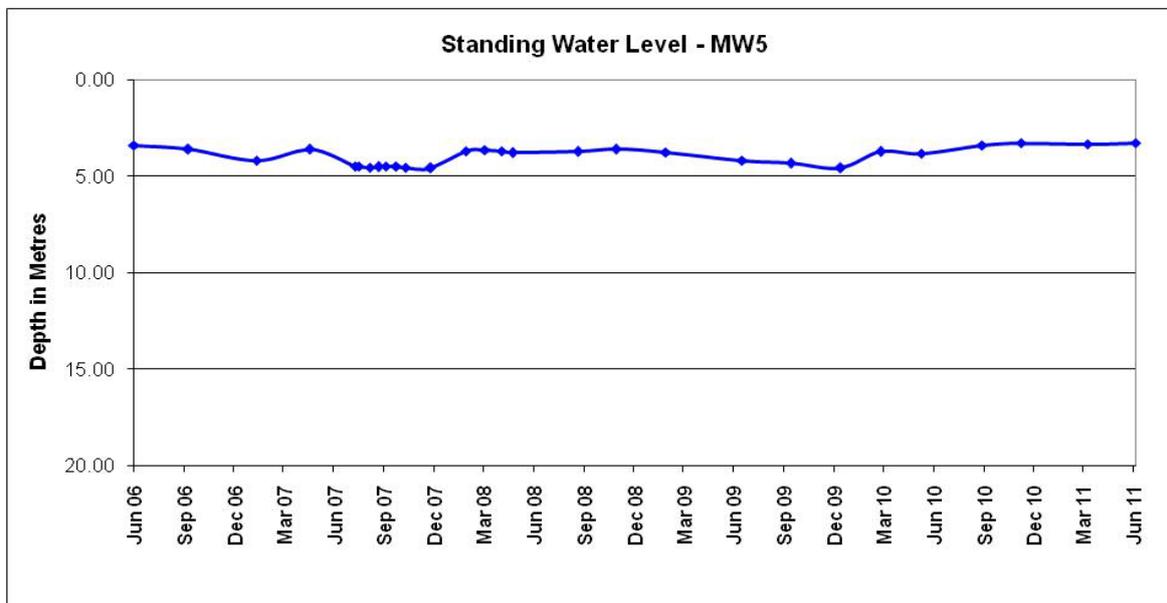
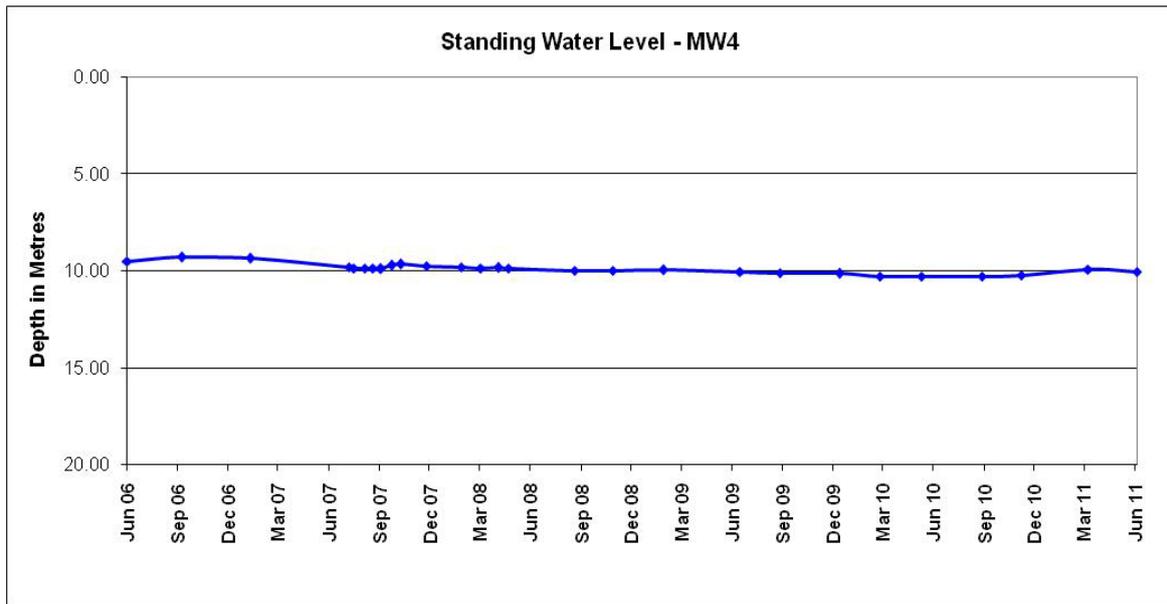
Site	Date	SWL (m)	pH	Elect. Conduct
<b>MW1</b>	January 07	9.22	7.1	2410
	April 07	7.49		
	July 07	7.91	7.3	2500
	August 07	7.66		
	September 07	7.66		
	October 07	7.64		
	November 07	7.62		
	January 08	7.55		
	March 08	7.60		
	April 08	7.67	7.3	3120
	August 08	7.73		
	September 08			
	October 08	7.82	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	
<b>MW2</b>	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			

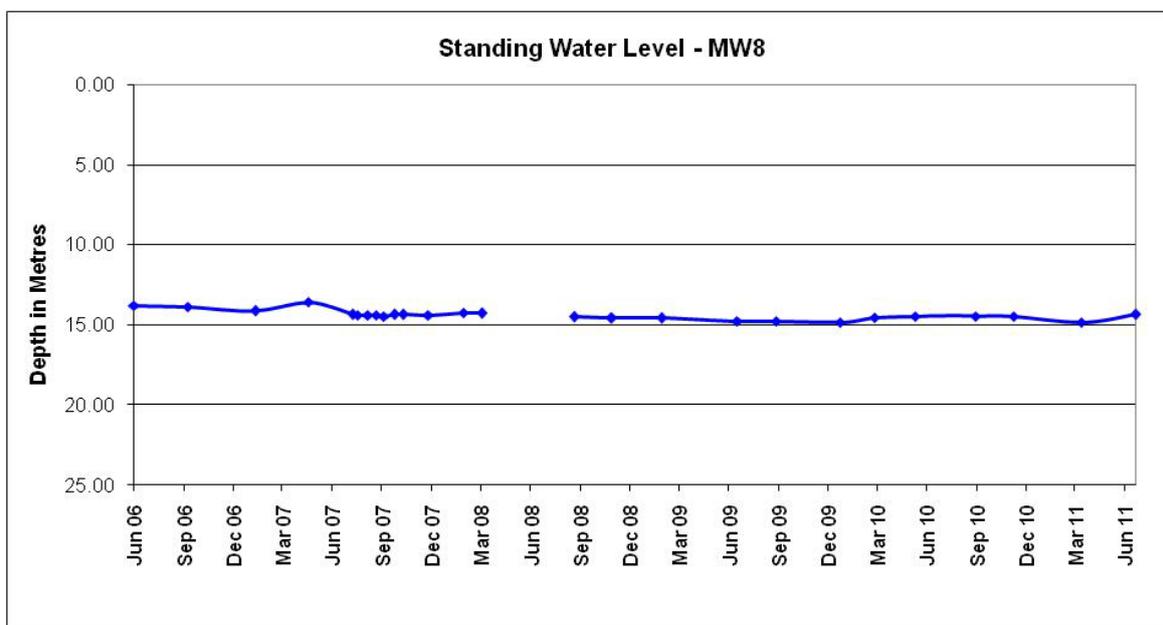
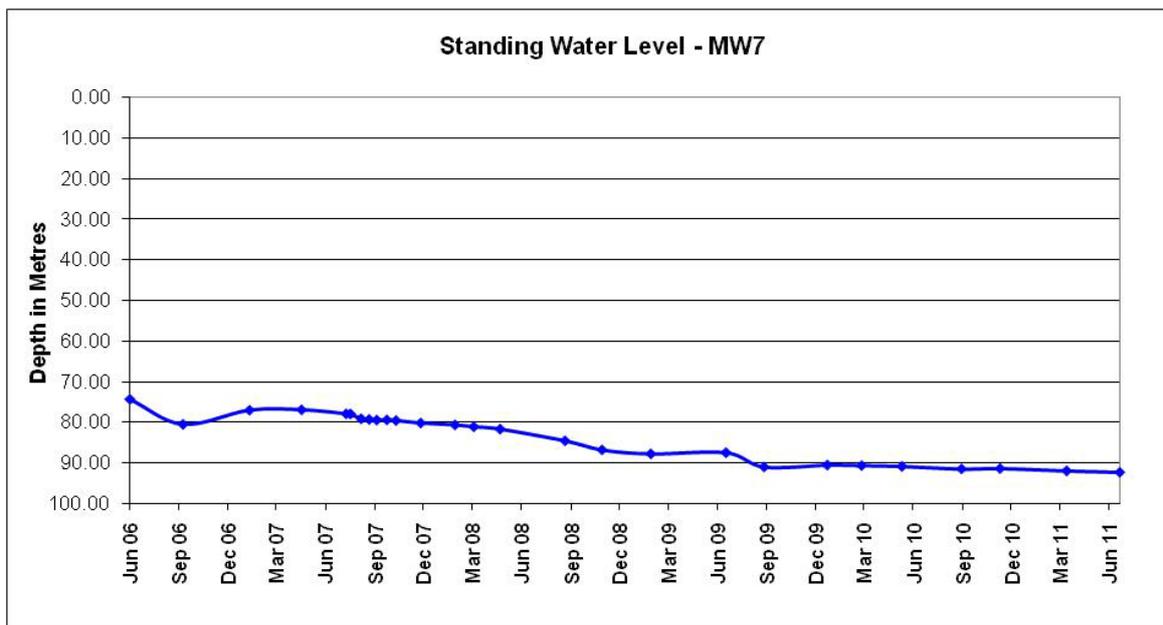
	December 09	4.51	7.5	640
	February 10	2.51		
	May 10	2.94		
	August 10	2.89	7.4	590
	November 10	3.01	7.32	513
	March 11	3.75	7.31	566
	June 11	3.65	7.3	553
<b>MW4</b>	September 06	9.25		
	January 07	9.37	7.1	3430
	July 07	9.88	6.8	5400
	August 07	9.87		
	September 07	9.73		
	October 07	9.67		
	November 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
<b>MW5</b>	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
<b>MW6</b>	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
<b>MW7</b>	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
<b>MW8</b>	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







The results indicate relatively consistent SWL at all monitoring sites since the last round of monitoring.

### Surface Water

Routine surface water monitoring was conducted in May 2011. Total suspended solids results were generally low in all storages indicating compliant sediment loads if discharge were to occur.

No wet weather discharge events have occurred since the last CCC meeting.

### Complaints

Since the last meeting there have been four complaints lodged to the Environmental Manager.

### **13<sup>th</sup> May 2011**

A complaint was raised in relation to dust on the 9<sup>th</sup> May and general noise from the mine. On investigation, visible dust on the morning of 9<sup>th</sup> May could have been related to a temperature inversion causing a layer of warm air at elevation preventing dust from dispersing as would normally be the case. In terms of noise, it was offered to locate the real time noise monitor at the complainant's property to obtain real time continuous noise data. This offer was accepted and the unit remains at the property collecting noise data.

### **16<sup>th</sup> May 2011**

A complaint was raised in relation to dust on the morning of 16<sup>th</sup> May. Upon receipt of the complaint, the Environmental Officer travelled out to site to view conditions. It was evident that dust was evident throughout the valley, with some localized dust generation identified at both Tarrawonga and Boggabri Mines. Tarrawonga staff confirmed that water carts commenced watering haul roads at Tarrawonga prior to production commencing on Monday morning as no activities had occurred at Tarrawonga on the Sunday. A staff member living in proximity to site commented that dust was prevalent prior to 7am, with dust from vehicles travelling on unsealed roads a significant contributor to dust haze that morning.

### **27<sup>th</sup> May 2011**

A complaint was raised in relation to dust from scraper operations at the Tarrawonga site. Scrapers were in the process of transferring topsoil to the new topsoil stockpile area west of the access road. On investigation of the complaint it was determined that scraper operations had been in place for approximately 1 hour and that additional water carts would be applied to the scraper route to reduce dust lift off.

### **21<sup>st</sup> June 2011**

A complaint was raised in relation to dust from the Tarrawonga site. The Environmental Officer reviewed site operations in conjunction with the Project Manager and confirmed scraper operations were the main cause of dust lift off with relatively strong north westerly winds prevalent. Action was taken to reduce the length of the scraper run and employ additional water carts on the scraper route. Observation confirmed reduced dust lift off.

### **Rehabilitation**

Infill planting of tubestock was undertaken on the western emplacement during the reporting period. This concentrated on planting of understorey species to supplement existing rehabilitation efforts. Active reshaping/topsoiling works currently on hold until areas are made available following the recent modification approval and pending extension areas.

# Minutes of the 23<sup>rd</sup> Meeting of the Tarrawonga Coal Mine Community Consultative Committee

**Meeting Held:** 16<sup>th</sup> November 2011, 10am

**Venue:** Tarrawonga Coal Mine, Training Room

## 1.0 Present and Apologies

**Present:** Cllr Ken Bates (Narrabri Shire Rep), Chairman  
Mr Danny Young (Environmental Manager)  
Cllr Colleen Fuller (Gunnedah Shire Rep)  
Mrs Jill Johnson (Environmental Officer)  
Mr Jason Conomos (Project Manager)  
Mr Bart Crosby (Community Rep)

**Apologies:** Mr Sandy Bull (Community Rep)  
Mr Tim Muldoon (Community Liaison Officer)

## 2.0 Previous Minutes

Minutes of the previous meeting were adopted as a true record on the motion of Colleen Fuller and Danny Young.

## 3.0 Business Arising

- 3.1 Danny Young advised that the Information Day for the proposed LOM extension had been held on the 7<sup>th</sup> October 2011 with approximately 40 attendees. A full bus load participated in the first mine tour and only a couple of people were present for the second tour so a vehicle was used for the second tour. Whitehaven believes that the day was well received.

In terms of progress of the LOM project, meetings have been held with a number of government agencies to discuss the project. The Environmental Assessment (EA) was lodged with the Department of Planning and Infrastructure (DoPI) on the 14<sup>th</sup> November 2011 for adequacy review. DoPI will assess the EA to determine if it meets the requirements of the Director General's Requirements (DGR) that were issued at the commencement of the project. If the DGRs are not met, DoPI will return the EA to Whitehaven for amendment. If they are met, the EA will go on public exhibition. Whitehaven is not sure on the date of exhibition given the Christmas period. It may either be exhibited for a longer period over Christmas or exhibited in the new year.

- 3.2 Ken Bates advised that Mining Related Councils are going to continue to push for funding. Update to be provided at the next meeting.
- 3.3 Ken Bates advised that it had been decided to leave the CCC meetings as they currently are rather than combining Tarrawonga and Boggabri Coal once a year.

- 3.4 Jill Johnson advised that Sandy Bull and Bart Crosby were notified of the intention to haul gravel on a Sunday in order to provide gravel to the Boggabri Go Cart Club. Jason Conomos said that Toll b-doubles were used with the haul route being Goonbri Road, Leards Forest Road and the Boggabri Coal private haul route. A water truck was used on the unsealed roads. One load of gravel was also provided to the golf club.
- 3.5 Issue with Toll being fined by Moree inspector for HML vehicles has been resolved by Toll. No further action required by the Committee.

## **4.0 General Business**

### **4.1 Mine Progress Report**

Jason Conomos, Project Manager, provided the July, August and September 2011 production results as follows:

- 5.373 million BCM overburden removed
- 443,332 tonnes of coal recovered

Rehabilitation status is as follows:

- 18.3 ha rehabilitated and under maintenance
- 13.82 ha seeded to cover crop

The site currently has 96 employees and 14 contractors.

Bart Crosby asked if the recent heavy rain had caused erosion. Jason said it had not affected rehabilitated areas but there had been some blowouts on the waste dumps. He said this isn't a major issue as they just start working over them once the area had been repaired by the dozer.

### **4.2 Environmental Monitoring Report**

Danny Young presented the environmental monitoring results which are attached in the Environmental Monitoring Report. He advised that the real time noise monitor had been at the "Sylvania" and "Coomalgah" properties over the last few months and there had been no indication that noise levels from the mine had exceeded criteria at these locations.

Bart Crosby asked how dams are managed onsite. Danny advised that the site targets discharge dams to extract water for dust suppression so that water levels remain as low as possible in preparation for wet weather. He said the site can also pump water back up through the sediment basin chain if necessary. Danny said that the Environment Protection Licence specifies that the site must demonstrate it has made an effort to reduce water levels in the discharge dams.

Bart asked whether the results from Orica blast monitoring could be trusted given the other issues within the company at the moment. Danny said Whitehaven had requested reports from Orica in the event of any issues associated with blasting activities and these reports had been issued to OEH.

Bart also suggested that the community has some concern about Orica's management of blasting in the area and the local depot because management issues such as those at Newcastle are often company wide. Danny advised that he was meeting with Orica on the 21<sup>st</sup> November 2011 and he would raise these concerns with them.

Bart advised the committee that the complaint regarding coal falling from a Toll truck and smashing a windscreen was from him. He requested some clarification from Toll regarding their policy for not replacing broken windscreens as he believes the law says you are responsible for anything that falls from your vehicle. Jill Johnson said she would seek advice from Toll.

Danny advised the Committee of the discussions between Boggabri Coal, Tarrawonga and Aston Resources regarding cumulative management and monitoring of impacts from the mines such as dust. The three companies had a meeting with OEH on the 15<sup>th</sup> November and OEH were impressed with the amount of work the mines had done of their own accord.

Bart asked what times the monitoring would operate and where the monitors would be located. Danny said the monitors will be sited based on advice from specialist consultants and monitoring will be undertaken 24/7.

Bart asked whether the information would be available to the Department and the community. Danny said the information will be provided to all three mines in real time and an independent specialist will be engaged to review and verify the results in order to provide a monthly summary that will be available on the three company's websites. Danny also discussed the predictive management capabilities of the system.

Danny advised that assuming approval of the LOM project, the southern waste emplacement will be rehabilitated first (which will be in the next couple of years).

## **5.0 New Business**

- 5.1 Ken acknowledged that he didn't need to raise concern about the visibility of the numbers of the Toll trucks because they have been much more visible over the last couple of months. Jill advised that in addition to the more regular cleaning of trucks, Whitehaven had also engaged a street sweeper for the CHPP access road and its junction with the Kamilaroi Highway to reduce any coal being tracked out onto the road.

- 5.2 Bart said he is concerned about the amount of coal dust on the signs and guide posts on the section between the CHPP and the speedway. He said it is a public road and not being able to read the signs is a safety issue. Danny said that the council had cleaned them and that he would look into the issue further.
- 5.3 Ken Bates asked if the meeting minutes could be emailed to him as soon as they have been typed up. He also requested a CD with all previous meeting minutes and environmental reports. Colleen Fuller also requested the minutes to be emailed to her.
- 5.4 Colleen Fuller thanked Whitehaven for their efforts in cleaning up the oil spill on Manilla Road on the 2<sup>nd</sup> November 2011. The spill was not the responsibility of Whitehaven as it was caused by a farmer on a tractor so the efforts of Whitehaven are appreciated.
- 5.5 Ken Bates said the attendance at the Community Information Day was disappointing but he thinks it was beneficial.
- 5.6 Ken Bates asked how the planning was progressing for a trip to Hunter Valley No 1 to inspect their low permeability barrier. Danny said he had contacted Rio Tinto and had received an acknowledgement of request but he was not sure how long it would be for us to receive a reply. Ken said the crop above the barrier didn't look like it was doing very well. Jill suggested that you would need to look at all possible contributing factors rather than just assuming the barrier was the issue.
- 5.7 Colleen Fuller thanked Whitehaven for their \$200 donation to Meals on Wheels which meant the cost of meals did not have to increase.
- 5.8 Bart Crosby asked Jason to request via toolbox talk that his employees slow down. He said it is getting beyond a joke and the "runway" in front of his house is like a drag strip at the moment.
- 5.9 Jason Conomos said that Boggabri Coal's proposal to direct traffic onto Goonbri Road will increase dust. Bart also said that NSC had told him that traffic counts indicated an average of 33 vehicle movements on Manilla Road in 2003 and 414 movements in 2010/11. Jill asked if that information was from a report available to everyone and Bart said it was stated to him verbally during a conversation with a NSC employee.
- 5.10 Ken Bates asked whether there had been a meeting to discuss the proposed road deviation. Danny said there had been preliminary discussions between the road design consultant and NSC. Ken said he hadn't seen the report yet.

## **6.0 Complaints**

Complaints were discussed in the Environmental Monitoring Report.

## **7.0 Next Meeting**

The next meeting will be held at the Tarrawonga Coal Mine Training Room on Wednesday 8<sup>th</sup> February 2011 at 10:00am.

Meeting closed at 11:10 am.

..... / /  
Ken Bates - Chairman

# Tarrawonga Coal Mine Community Consultative Committee Meeting #23

## Environmental Monitoring Report August – October 2011

### Noise Monitoring

Noise monitoring was undertaken on the 13<sup>th</sup> and 14<sup>th</sup> September 2011 as per requirements under the consent. Results from the monitoring are outlined below:

Noise Monitoring Results – 13 September 2011 (Day) (Ambardo and Pine Grove on 14 September)				
Location	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources
N2 Bollol Ck Station	3:00 pm	39	2 m/s, W	Wind (36), birds (33), TCM (33)
N3 Tarrawonga	4:26 pm	36	1.5 m/s W	Wind in trees (36), birds (25), TCM (barely audible)
N4 Ambardo	7:05 am	49	Calm	Birds (48), TCM (42) <sup>1</sup> , traffic (35)
Pine Grove	7:05 am	44	Calm	Birds (42), TCM (39) <sup>1</sup>

<sup>1</sup> Trucks on private section of haul road (38), mine noise (34).

TCM Noise Monitoring Results – 13 September 2011 (evening)				
Location	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources
N2 Bollol Ck Station	8:10 pm	39	0.5 m/s, WNW	TCM (39), frogs (32)
N3 Tarrawonga	7:53 pm	32	0.8 m/s, WNW	TCM (32)
N4 Ambardo	7:23 pm	43	0.8 m/s, WNW	TCM (43) <sup>1</sup> , traffic (34)

<sup>1</sup> Trucks on private section of haul road (42), mine noise (35).

TCM Noise Monitoring Results – 13 September 2011 (night)				
Location	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources
N2 Bollol Ck Station	10:45 pm	43	0.5 m/s, NW	TCM (43)
N3 Tarrawonga	10:15 pm	33	0.5 m/s, NW	TCM (33)
N4 Ambardo	10:34 pm	32	0.5 m/s, NW	TCM (32)

The results show that noise emissions from the mine were below the operational noise criteria, or within prescribed agreement limits, at all privately owned residences during the monitoring event.

In addition to the operational noise, the noise from TCM must not exceed 45 dB(A) L1 (1min) between the hours of 10 pm and 7 am. This is to minimise the potential for sleep disturbance as a result of individual loud noises from the mine. During the night time measurement circuit the L1 (1min) noise from TCM did not exceed 45 dB(A) at any monitoring location.

## **Blast Monitoring**

### **Blasting Results**

Since the first shot there have been 327 blasts (until the end of October).

Three blasts during the last three months have exceeded 115dBL. All have remained below 5mm/s. Exceedances in the 115dBL airblast overpressure and 5mm/s ground vibration threshold are allowable under the consent for 5% of the total number of blasts over a period of 12 months at residences on privately-owned land. No blasts are allowed to exceed 120dBL or 10mm/s.

Templemore recorded 115.9dBL on the 19<sup>th</sup> October 2011 however this property is mine-owned. Tarrawonga recorded 115.9dBL on the 15<sup>th</sup> July 2011 and 115.3dBL on the 16<sup>th</sup> September 2011. Over the last 12 months (November 2010 – October 2011) there have been 70 blasts. Therefore the two elevated results at Tarrawonga only account for 2.85% of the total number of blasts in the last 12 months.

To date, the highest overpressure recorded remains at 117.0 dBL recorded at “Bollol Creek Station” on the 5<sup>th</sup> July 2007. The highest ground vibration recorded is 2.88 mm/s recorded at “Templemore” on the 25<sup>th</sup> October 2010.

## **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)
October 2010	1.6	4.8	1.0	1.3	2.6	0.9	4.5	1.4	0.7	0.9	9.1	3.2	2.0
November 2010	0.9	1.7	0.8	1.0	3.0	0.7	28.3	2.3	1.2	1.2	1.9	4.6	2.5
December 2010	8.2	2.0	0.6	1.2	3.4	0.6	6.8	2.4	1.8	23.7	1.9	1.5	1.5
January 2011	0.2	1.7	0.7	1.0	1.9	0.5	2.6	2.3	1.3	2.0	2.1	2.0	0.7
February 2011	13.1	4.3	1.2	1.1	6.6	1	2.6	2.7	1.3	3.3	1.6	7.2	2.1
March 2011	10.2	2.5	0.5	0.7	3.3	0.5	2.4	1.6	2.7	3.5	2.8	10.6	1.6
April 2011	10.7	1.6	0.5	0.4		0.5	0.9	2.8	0.4	2.1	1.1	3.5	1.8
May 2011	1.6	6.3	0.7	0.7	2.3	0.9	1.6	0.6	1.0	0.5	1.0	2.4	1.4
June 2011	0.9	5.8	0.5	0.5	6.5	0.5	0.6	1.0	1.3	2.5	1.2	2.6	2.2
July 2011	3.3	1.5	0.7	0.8	3.6	0.4	4.2	1.0	0.5	3.9	2.5	1.3	0.3
August 2011	2.0	2.5	0.5	1.8	6.1	0.8	4.0	1.2	0.5	1.8	2.0	4.3	3.0
September 2011	2.4	3.4	0.8	0.6	5.1	0.8	3.8	1.1	5.1	2.0	1.6	2.8	2.0
<b>Annual Average</b>	<b>4.6</b>	<b>3.2</b>	<b>0.7</b>	<b>0.9</b>	<b>4.0</b>	<b>0.7</b>	<b>5.2</b>	<b>1.7</b>	<b>1.5</b>	<b>4.0</b>	<b>2.4</b>	<b>3.8</b>	<b>1.8</b>

Dust levels have been relatively low at all monitoring locations over the last three months with the exception of EB-8 and EB-10. EB-8 is located in close proximity to soil stripping activities whilst EB-10 is adjacent to the new soil stockpile on the western side of the site access road. The annual average threshold of 4g/m<sup>2</sup>/month is currently being exceeded at EB-4 and EB-10, which are both on mine-owned land.

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

The annual average for PM<sub>10</sub> readings is currently at 14.36µg/m<sup>3</sup> and remains well below the annual average limit of 30µg/m<sup>3</sup>. PM<sub>10</sub> levels have remained compliant since the last CCC meeting.

The highest 24hr reading to date is 97µg/m<sup>3</sup> which was recorded on the 8<sup>th</sup> December 2009.

## Water Monitoring

### Ground Water

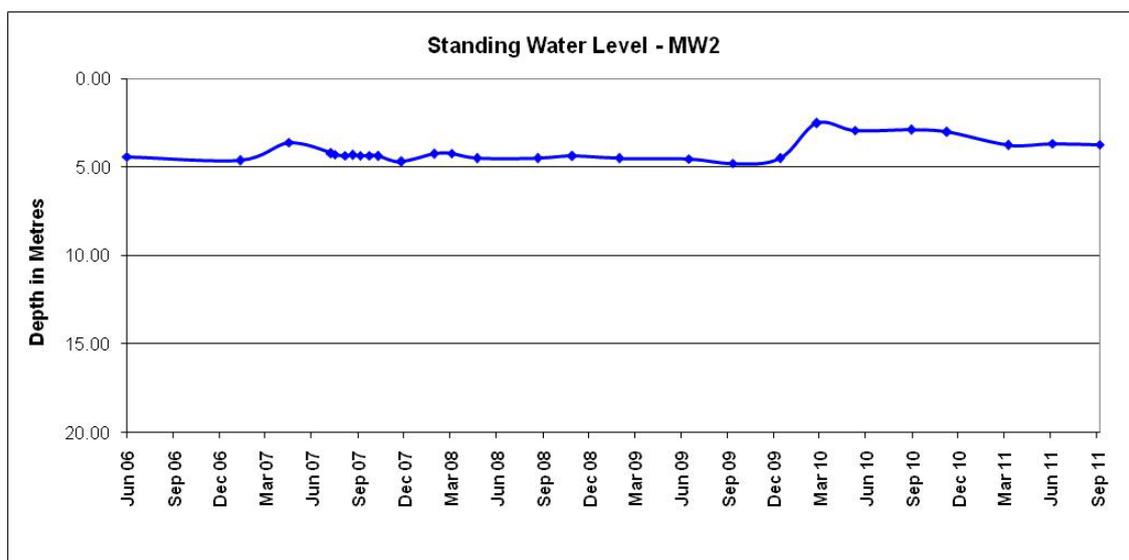
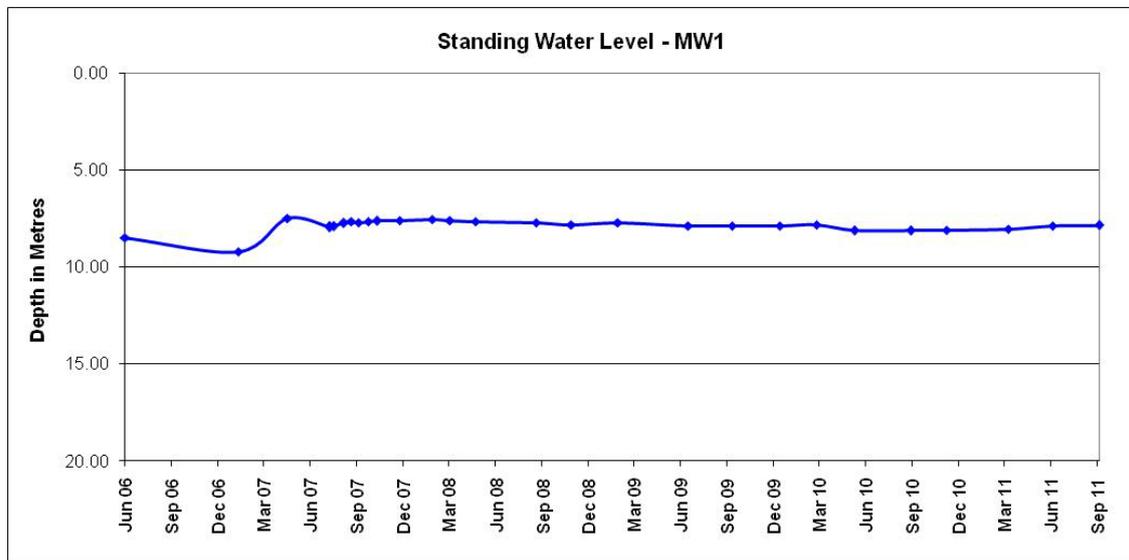
Groundwater monitoring data obtained to date, including the last round of SWL monitoring in September 2011, is presented in the following table. The next round of monitoring is scheduled for December 2011.

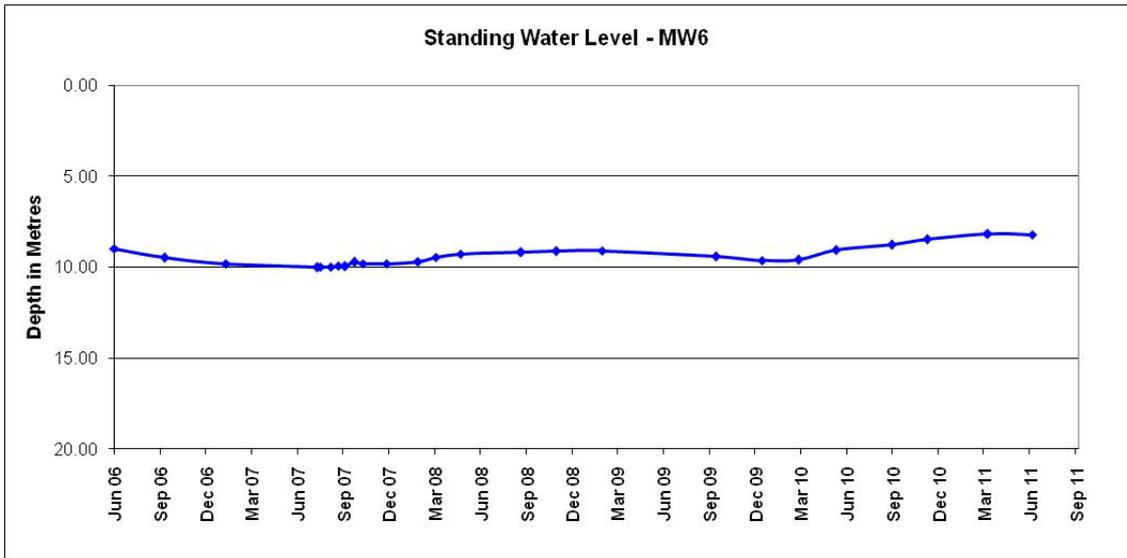
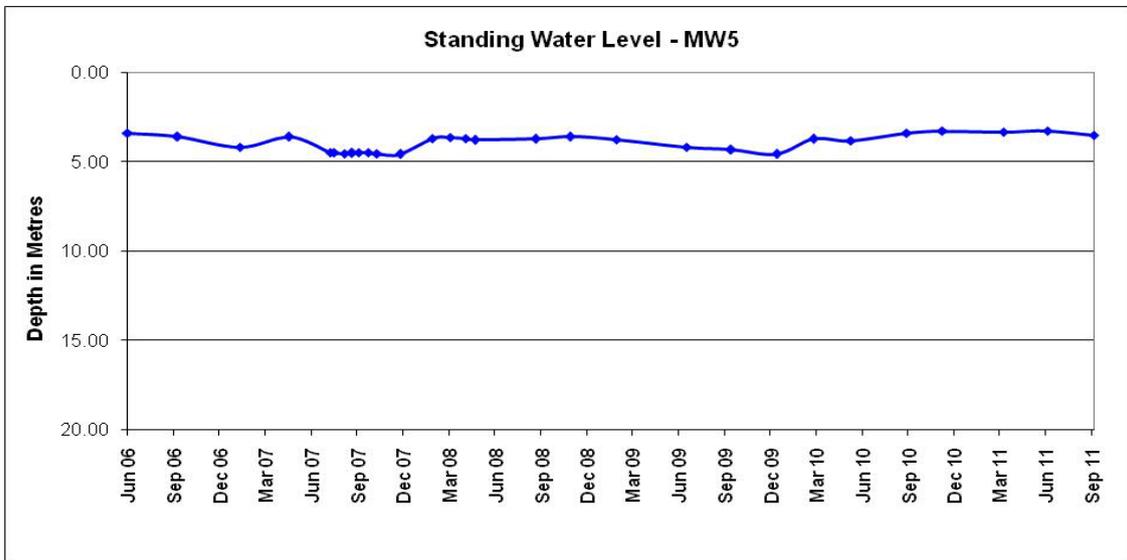
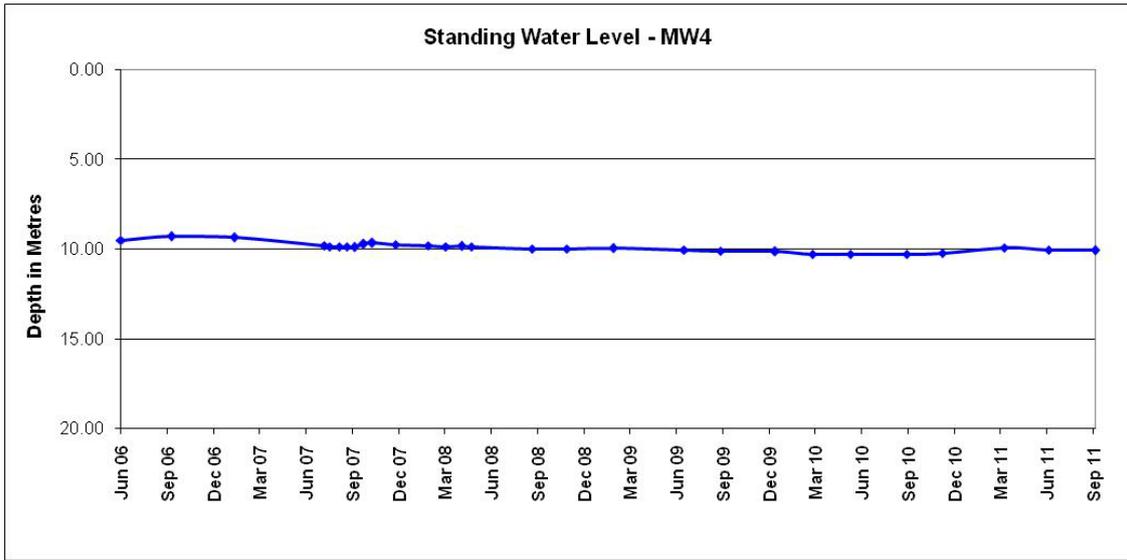
Site	Date	SWL (m)	pH	Elect. Conduct
MW1	January 07	9.22	7.1	2410
	April 07	7.49		
	July 07	7.91	7.3	2500
	August 07	7.66		
	September 07	7.66		
	October 07	7.64		
	November 07	7.62		
	January 08	7.55		
	March 08	7.60		
	April 08	7.67	7.3	3120
	August 08	7.73		
	September 08			
	October 08	7.82	7.8	3500
	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	
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			

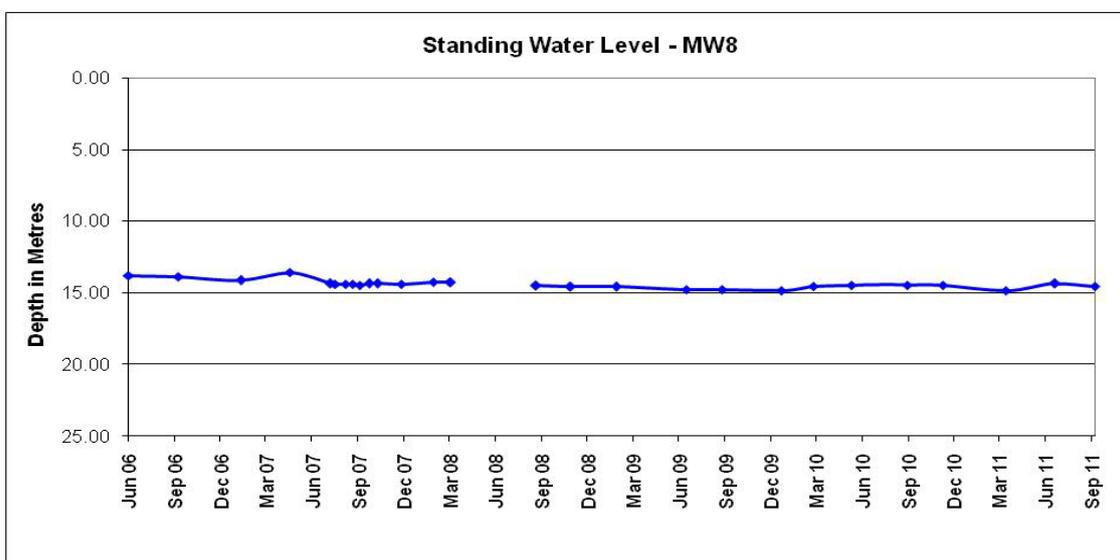
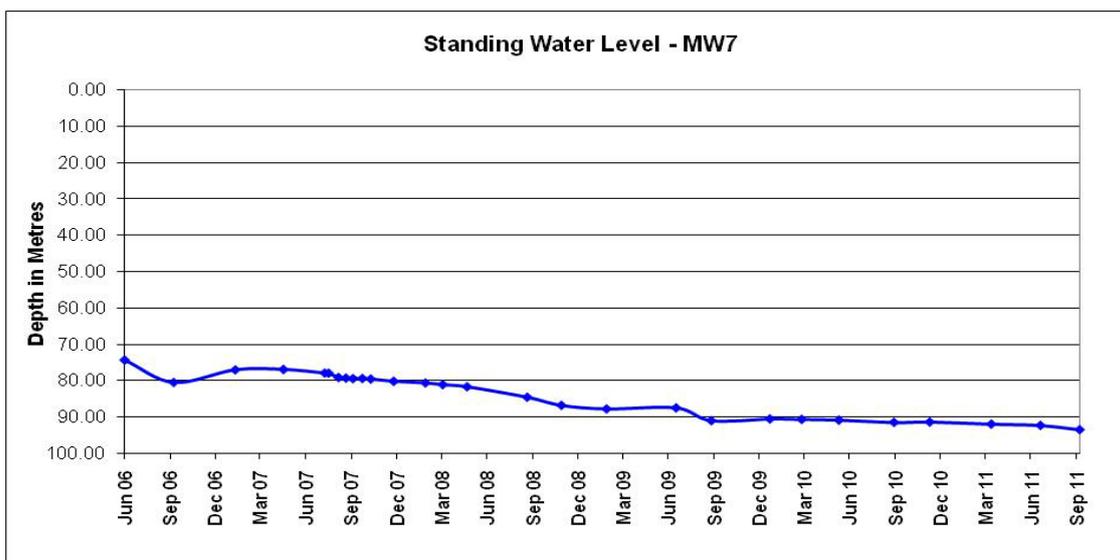
	June 09	4.53	7.7	660
	September 09	4.8		
	December 09	4.51	7.5	640
	February 10	2.51		
	May 10	2.94		
	August 10	2.89	7.4	590
	November 10	3.01	7.32	513
	March 11	3.75	7.31	566
	June 11	3.65	7.3	553
	September 11	2.95	6.9	585
<b>MW4</b>	September 06	9.25		
	January 07	9.37	7.1	3430
	July 07	9.88	6.8	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
<b>MW5</b>	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

<b>MW6</b>	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	-	-	-
<b>MW7</b>	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
<b>MW8</b>	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	







The results indicate very consistent SWL at all monitoring sites since the last round of monitoring. The SWL at MW7, which is located at the north-eastern corner of the mine lease on mine-owned land, continues to drop 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 in August 2011. Total suspended solids results were generally low in all storages indicating compliant sediment loads if discharge were to occur.

Two wet weather discharge events occurred in September 2011.

Discharge occurred from both SB14 and SD9 on the 9<sup>th</sup> September 2011 following 39.2mm of rainfall. The TSS level in SB14 was 131mg/L, thereby exceeding the threshold of 50mg/L. SD9 was compliant at 50mg/L.

SB14 and SD9 also discharged on the 29<sup>th</sup> September 2011 after 38.6mm of rainfall. Both exceeded the TSS threshold with results of 414mg/L and 228mg/L.

Tarrawonga submitted a licence variation application to OEH in August 2011 for, among other things, inclusion of a condition that allows for exceedance of TSS concentration limits for discharge points during rainfall events that exceed 38.4mm (5 day 90<sup>th</sup> percentile rainfall depth). This condition is already in EPLs for other Whitehaven mines and is considered on the basis that discharge dams have sufficient storage to contain 5 day 90<sup>th</sup> percentile rainfall events. Whilst the variation has not been finalised it is noteworthy that had the condition been in place at the time both discharges would have been within the allowable exceedance for TSS.

## **Complaints**

Since the last meeting, there have been eight complaints in relation to operations at Tarrawonga as detailed below.

### **25<sup>th</sup> July 2011**

A complaint was lodged via the Tarrawonga Complaints Line in relation to a blast at Tarrawonga which shook the complainant's windows and house, and the extent of yellow plume drifting to the property following the blast.

The complainant was contacted by the Environmental Manager to discuss the investigation being undertaken, and a message to this effect was left on the answering machine. It was identified that upon availability of the blast results, and receipt of the video for the blast, a report would be issued to the complainant outlining the results.

A letter response was issued on 29<sup>th</sup> July 2011 identifying blast within compliance limits.

The Environmental Manager was also contacted by OEH in relation to the same complaint. OEH were advised that Whitehaven would obtain the blast monitor results to identify vibration and overpressure results. The matter was also discussed with Orica who advised that the fume generation rated a 2 on their scale (up to 5).

A letter was issued to OEH as per the advice issued to the complainant.

### **28<sup>th</sup> July 2011**

A complaint was received by the Environmental Manager in relation to Toll Truck T19 spilling a piece of coal from the rear trailer onto windscreen of the complainant's wife's vehicle, causing windscreen to crack. The incident occurred south of the Rocglen turn off at around 10:55am with truck T19 travelling towards Gunnedah and his wife travelling back to their property. The coal piece was retrieved at the time of the incident and the truck number identified.

The matter was discussed with Toll's Project Manager, John Molloy, and the Environmental Manager met with the complainant at their residence and viewed the damaged windscreen and the nominated coal piece which caused the damage. The complainants were advised that the matter would be discussed between Toll and Whitehaven for resolution and advice would issue back to them as soon as possible.

Whilst Toll generally has a policy not to replace windscreens, on this occasion the cost of replacement was covered by Toll.

## **2<sup>nd</sup> August 2011**

The Environmental Manager received a complaint in relation to extent of dust in the area during the morning, which seemed to be travelling east from the direction of the mines. It was acknowledged that conditions were very dry and prevailing winds determined how dust dispersed however it was requested that more be done to control dust from off the mine sites.

Both Boggabri and Tarrawonga mines acknowledged dust generation from their operations, however, a significant proportion of dust is also generated from traffic on the nearby unsealed roads including Manilla Road, Wean Road, Goonbri Road, Dripping Rock Road and Leard Forest Road. This road dust, combined with dust generation from the mine sites is creating a cumulative dust impact that is most visible in the early morning due to temperature inversions preventing the dust from dispersing.

Visual observations of the mine sites during the day generally confirm a reduced dust impact once the inversion layer has dispersed. Actions under consideration at the time of the complaint included consideration to ongoing gravel collection by Narrabri Shire Council requiring Council to water the affected roads to reduce dust impact; review of water cart operations on both day and night shift to confirm adequate dust suppression is being implemented; and consideration to the use of a surfactant to further reduce dust lift off from haul roads on the mine site.

A meeting was held on the 22<sup>nd</sup> August 2011 between the complainants and representatives from Boggabri Coal and Whitehaven to discuss cumulative impacts.

## **29<sup>th</sup> September 2011**

The complainant contacted the Environmental Manager in relation to a truck exiting the Tarrawonga private section of the haul route onto Manilla Road and crossing the centre line of the road into the incorrect lane. This caused the complainant to brake in order to allow the truck to enter the correct lane.

Immediately following the complaint, the Environmental Manager contacted the Co-ordinator for Domestic Coal Sales at Tarrawonga site to verify if a domestic coal truck had recently departed site. It was confirmed a truck matching the description provided by the complainant had departed site at approximately 1:20pm, carting coal to Blush Tomatoes in Guyra. On the 30<sup>th</sup> September 2011, contact was made with the haulage contractor who agreed to raise the matter with the driver of the truck. It was reiterated to the haulage contractor that any trucks undertaking haulage to and from the Tarrawonga site must be compliant with all rules and regulations or face the prospect of being banned from entering site.

## **25<sup>th</sup> October 2011**

Two complaints were made to the Environmental Manager between 8:30am and 9:30am in relation to the extent of dust in the area during the morning, particularly relating to dust from the Tarrawonga site and dust from gravel trucks departing site for Narrabri Shire Council.

Upon receipt of the complaints, the Environmental Manager travelled to site to review the extent of dust in the area. It was clearly dusty and hazy across the valley. On discussion with the Project Manager at Tarrawonga, he confirmed that dusty/hazy conditions were prevalent early in the morning even prior to Tarrawonga site commencing production. It was commented that gravel trucks departing site along Goonbri Road and then Manilla

Road were creating significant dust lift off, with Council not providing any dust suppression on the Council roads.

Following discussions, it was agreed that scraper operations be suspended at Tarrawonga site until dust levels cleared. It was also agreed that discussions should be held with Council on the basis that Tarrawonga would no longer supply gravel unless Council undertook to provide a water cart for dust suppression of its roads during gravel cartage. Contact was made with Council in relation to this and it was agreed they supply a water cart for this purpose.

A third complaint was received at 12:30pm from OEH in relation to dust from the site and gravel trucks travelling along unsealed roads. The Environmental Manager advised OEH of the actions that had been taken prior in the day. It was also advised that Tarrawonga now also utilises a dust suppressant (surfactant) for spraying on its haul roads as a further means of reducing dust lift off from site.

### **Rehabilitation**

Shaping and topsoiling on the lower batter of the southern emplacement has commenced in recent weeks. This area will not be disturbed by the proposed life-of-mine project.

### **Independent Environmental Audit**

An Independent Environmental Audit was undertaken on the 3<sup>rd</sup> November 2011, as required by DA 88-4-2005 MOD 1. The audit report is expected to be finalised in December 2011 with the report and an action plan to be submitted to the Department of Planning and Infrastructure within 6 weeks of completion of the report.