

Narrabri Coal Project Community Consultative Committee Meeting #4

Environmental Monitoring Report November 2008 – January 2009

Noise Monitoring

Since the previous meeting, attended noise monitoring was undertaken on the 17th December to verify if noise levels were within compliance limits. The results of the December monitoring are in the table below.

Noise monitoring results 17th December 2008

Location	Time	dB(A), Leq	Wind Speed / Direction	Noise Source
Kurrajong	8:51am	37.3	Calm	Traffic(35), Domestic(34), NCM(<20)
Bow Hills	9:12am	58.2	0.5 m/s, W	Truck(58), NCM(<25)
Greylands	9:35am	38.8	0.5 m/s, W	Birds(37), Traffic(33), NCM(25)
Westhaven	9:57am	38.0	2 m/s, W	Wind(35), Domestic(34), NCM(inaudible)
Naroo	8:20am	38.0	1.5 m/s, W	Traffic(36), Birds(32) NCM(inaudible)

The above monitoring results demonstrate compliance at all receivers throughout the survey.

Unattended noise monitoring was also undertaken through December as required under the consent. Noise logs have been provided to Narrabri Coal from the consultant as part of the background noise collation. This data does not distinguish between mine and other noise sources and as such the data is not presented in this report. It is anticipated that following the first 12 months of mining from the project site, the requirement for ongoing unattended noise monitoring will be removed.

Deposited Dust Monitoring

Month	ND1 Turrabaa	ND2 Claremont	ND3 Bow Hills	ND4 Matoppo	ND5 Claremont	ND6 Willarah	ND7 Claremont	ND8 Claremont
January 2008	0.6	0.5	0.4	1.4	0.2	1.6	0.6	0.4
February 2008	0.9	0.8	0.5	1.0	2.3	6.2	1.3	0.6
March 2008	1.6	3.7	1.5	1.1	1.3	1.7	1.2	1.1
April 2008	2.5	1.1	0.9	1.2	1.7	1.0	1.0	0.6
May 2008	3.5	2.6	2.2	2.1	2.3	2.0	0.6	1.5
June 2008	4.2	1.7	3.5	0.9	1.7	0.4	1.3	0.6
July 2008	3.1	0.6	4.4	0.5	1.9	0.4	0.3	0.3
August 2008	1.2	0.5	3.6	1.6	3.3	0.4	0.5	0.5
September 2008	3.8	1.4	1.4	8.6	4.3	1.0	0.8	0.6
October 2008	28.6	0.8	0.8	10.9	1.9	4.6	0.9	0.6
November 2008	13.1	1.6	0.9	24.9	1.3	1.5	1.4	0.1
December 2008	2.2	1.3	0.8	15.6	1.5	2.3	1.1	0.1
Annual Average	5.4	1.4	1.7	5.8	1.9	1.9	0.9	0.6

The above results indicate that dust levels surrounding the site have remained relatively consistent with the exception of the Turrabaa monitor and the Matoppo monitor. Deposited dust levels at these two sites were significantly higher over the period September 08 to December 08 as compared to previous results.

On review of lab analysis reports from Ecowise for these two monitoring points the following was noted:-

ND1 – Sample brown and cloudy with leaf matter (October)
Sample cloudy brown with insects (November)

ND4 – Sample cloudy brown with insects (September)
Sample brown and cloudy with leaf matter (October)
Sample cloudy brown with insects and leaf matter (November)
Sample dark brown with insects (December)

The lab analysis indicates a level of contamination in the samples from both vegetative matter and insects which would have impacted on the total insoluble matter recorded. Ash content from those samples (the combustible material ie. not attributable to dust) was also relatively high. On review of the weather station data for those months it was also determined that:

September 2008: Rainfall 89.0mm with wind directions predominant from the north west and south east.

October 2008: Rainfall 49.0mm with wind directions predominant from the north west and south east.

November 2008: Rainfall 129.6mm with wind directions predominant from the south east.

December 2008: Rainfall 189.4mm with wind directions predominant from the north west and south east.

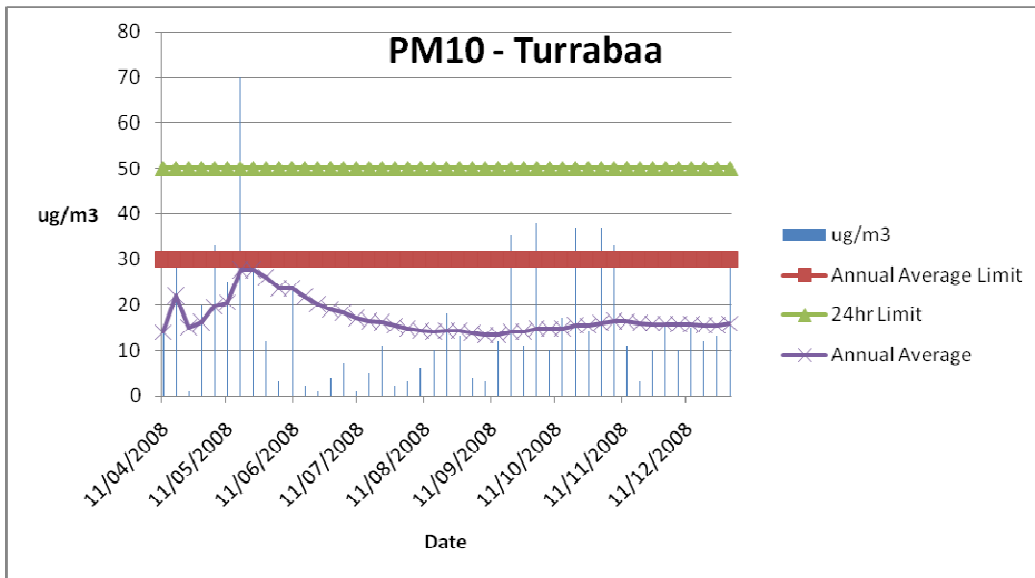
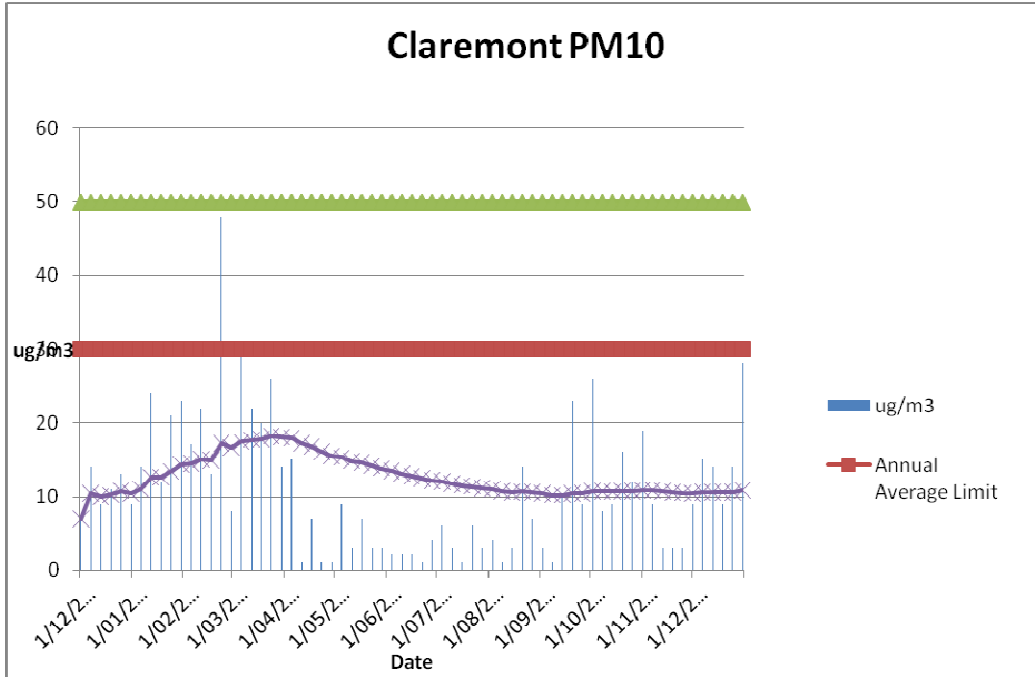
As indicated from the weather station data, rainfall over this period has been higher than previous months which would have reduced surface dust generation from the project site. It is also noteworthy that during this period, surface construction activity has reduced significantly as compared to previous months. Activities that have been occurring on site which may have contributed to the elevated dust levels include refurbishment and construction of surface water storage dams located to the north and north east of the Turrabaa monitor, as well as refurbishment of a surface water storage dam on the pit top area boundary south of the Matoppo monitor. Other activities that have been identified off the project site include construction works on Kurrajong Creek Road and general farming activities.

Deposited dust levels at these monitors will be closely monitored over the next few rounds of analysis. Of particular relevance over this period will be the completion of surface water storage refurbishment and establishment of groundcover in these areas, as well as completion of works on Kurrajong Creek Road.

High Velocity Air Sampling (PM10)

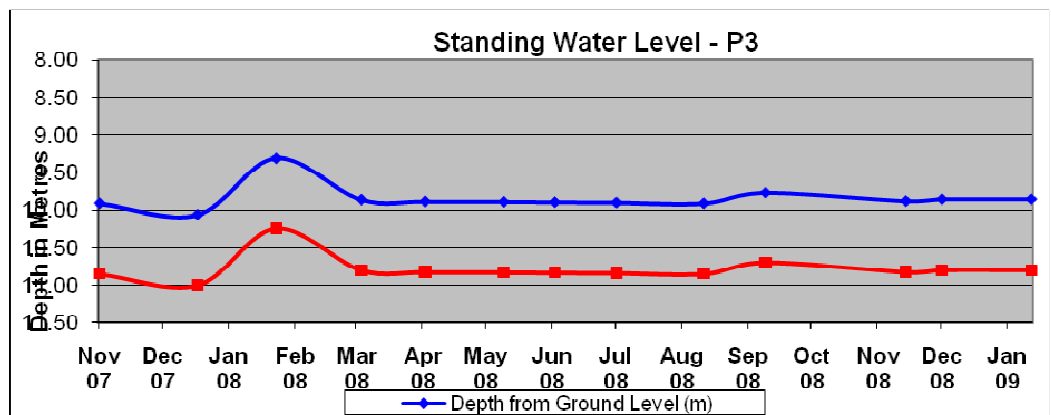
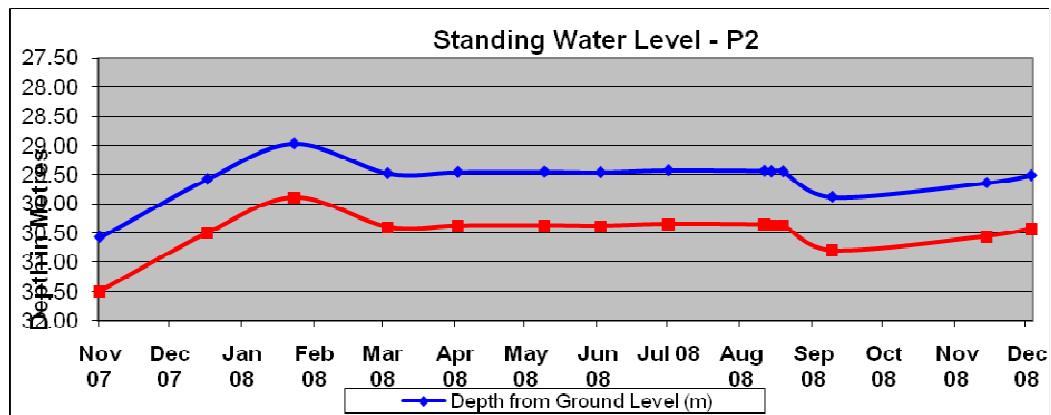
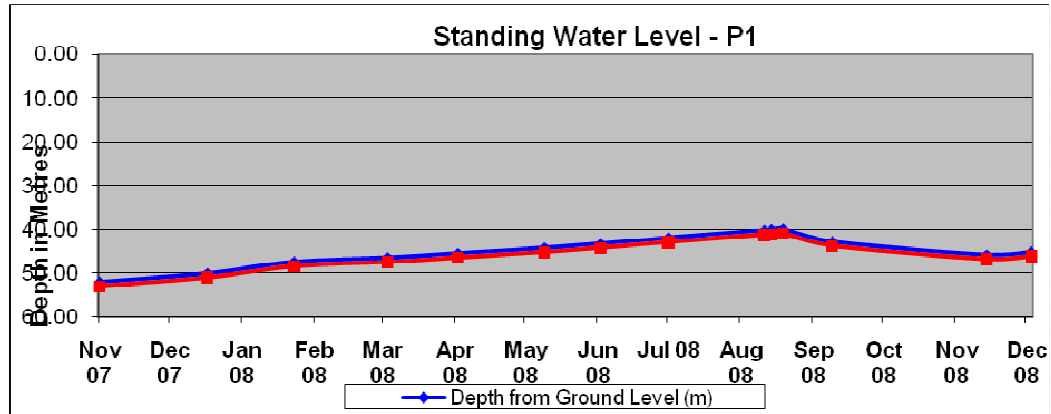
PM10 measurements taken to date for the Claremont High Velocity Air Sampler is returning a running annual average of 10.90ug/m³ which is well below the annual average limit of 30ug/m³. The highest reading from this sampler remains at 48ug/m³ as measured on 23rd February 2008.

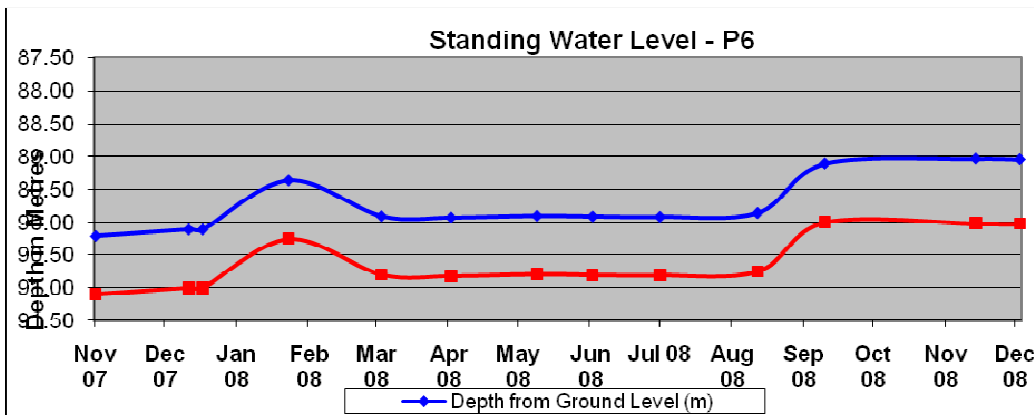
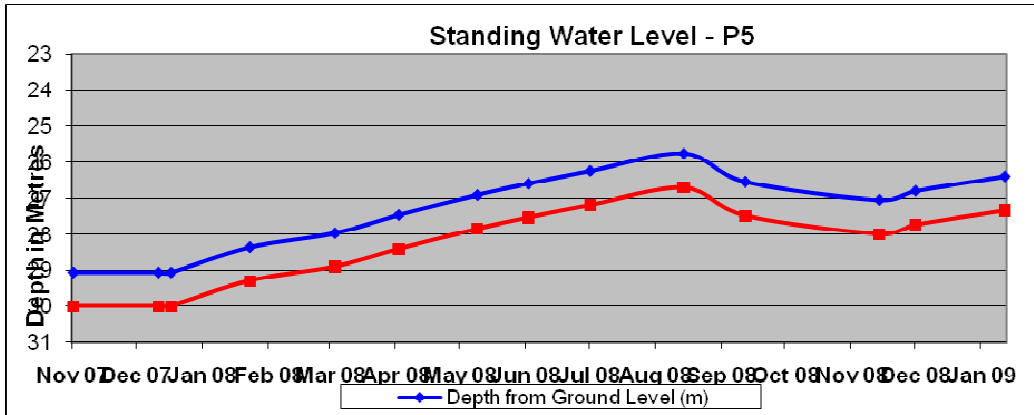
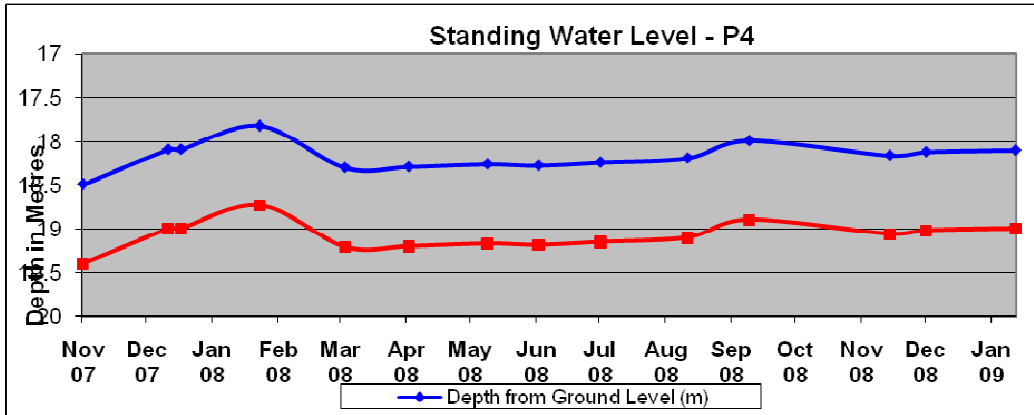
PM10 measurements taken to date for the Turrabaa High Velocity Air Sampler is returning a running annual average of 15.89ug/m³ which is well below the annual average limit of 30ug/m³. The highest reading from this sampler remains at 70ug/m³ as measured on 17th May 2008.

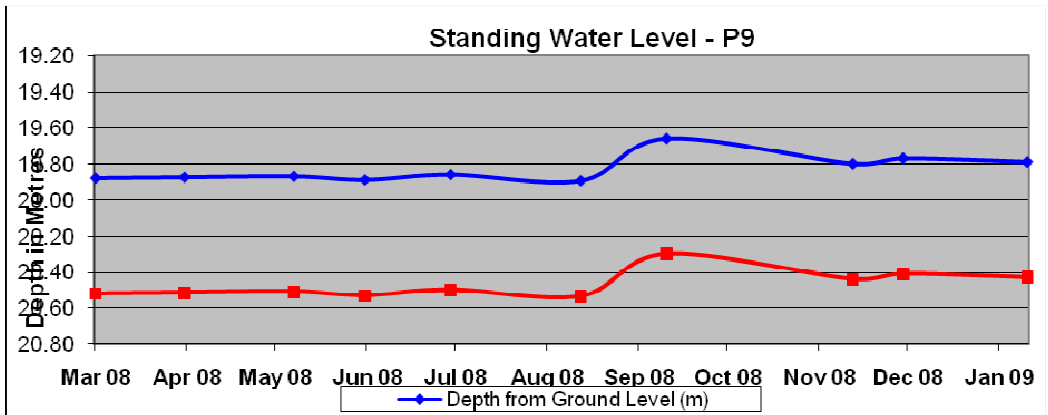
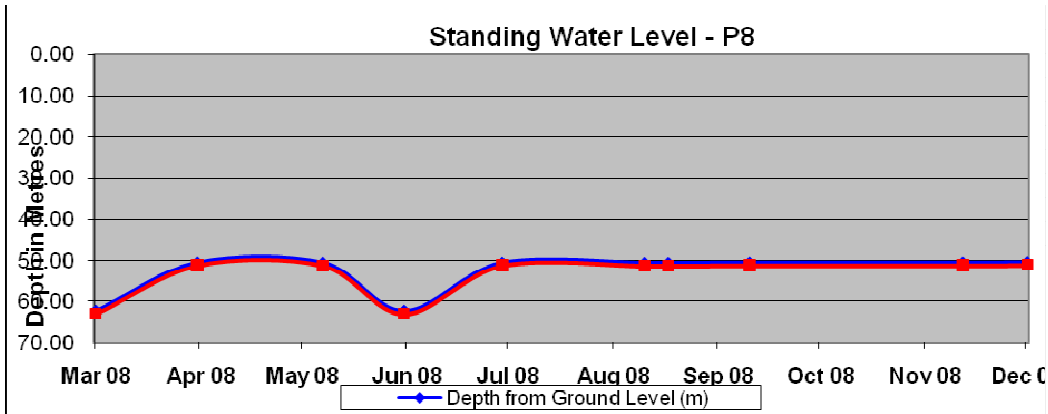
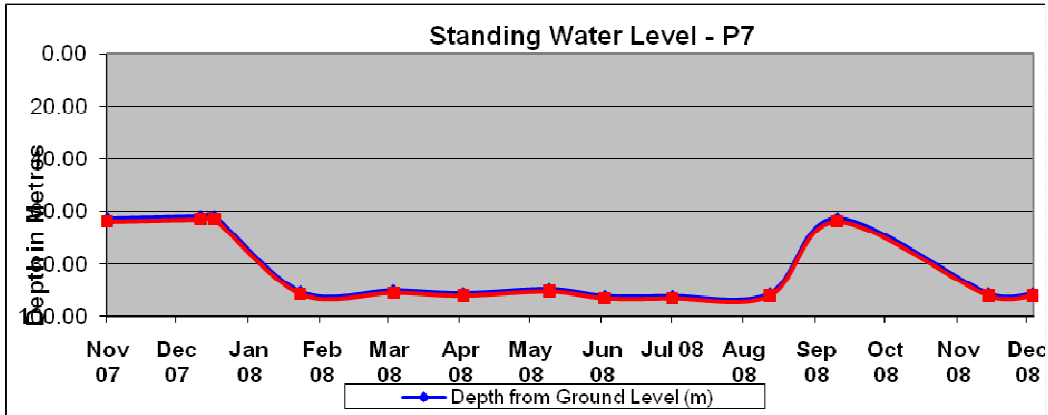


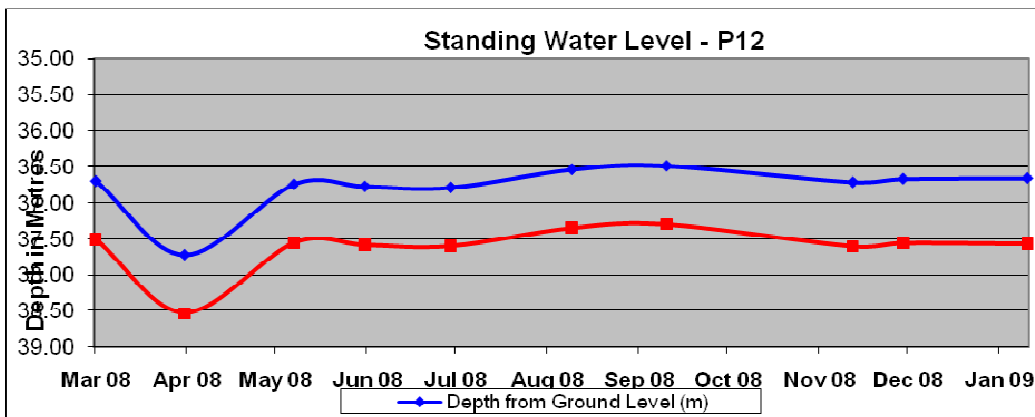
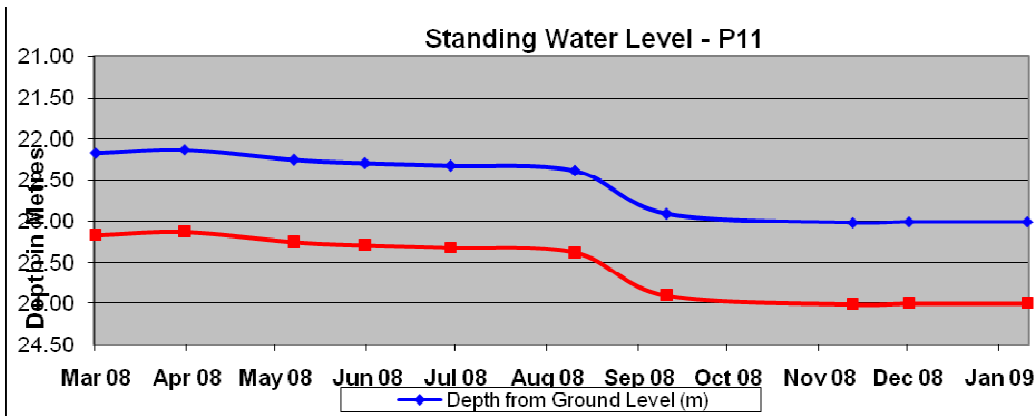
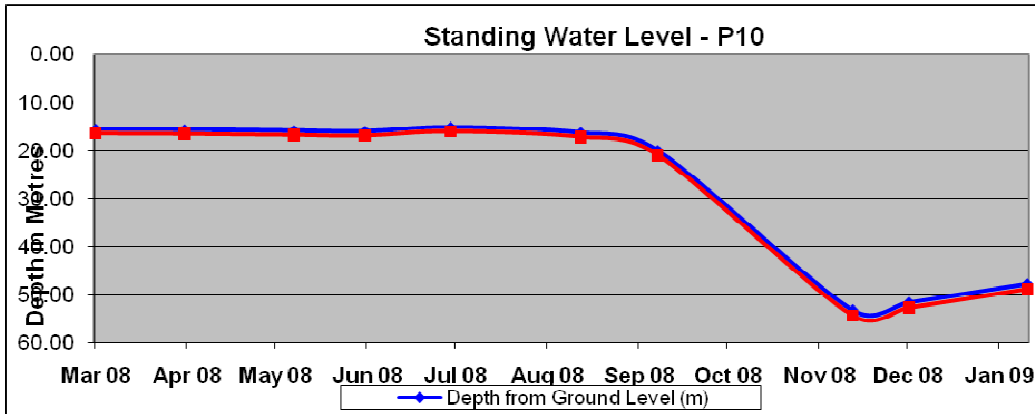
Groundwater Monitoring

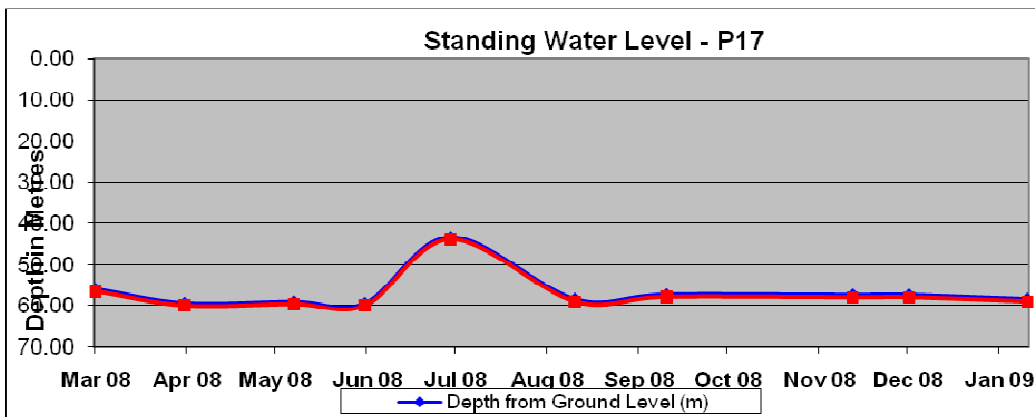
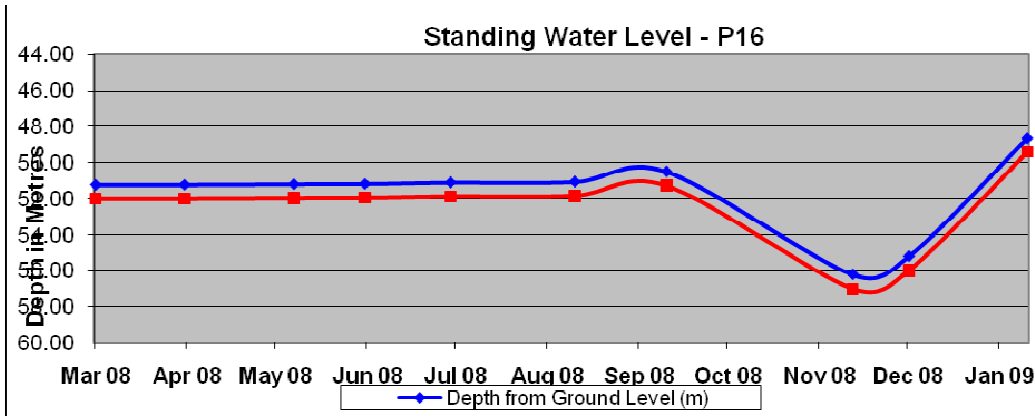
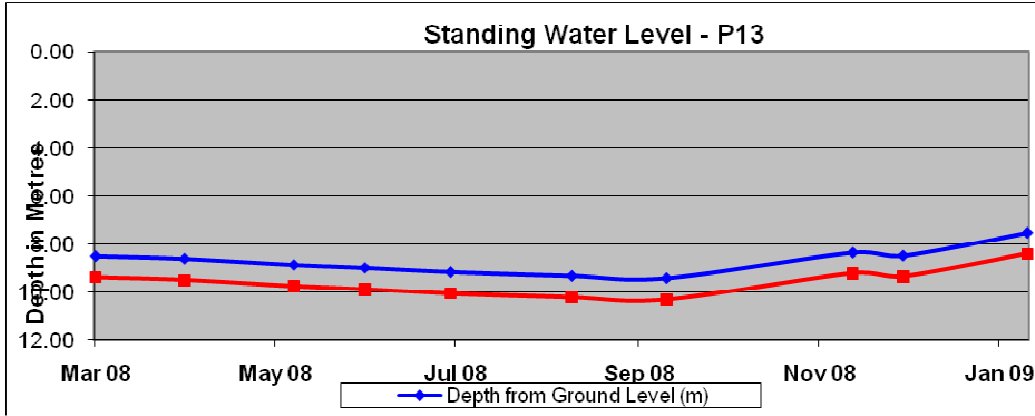
Groundwater monitoring data to date as follows:-

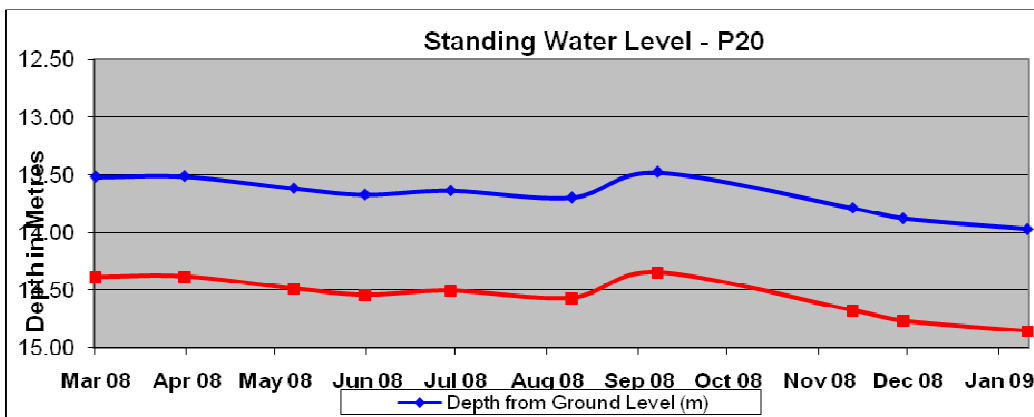
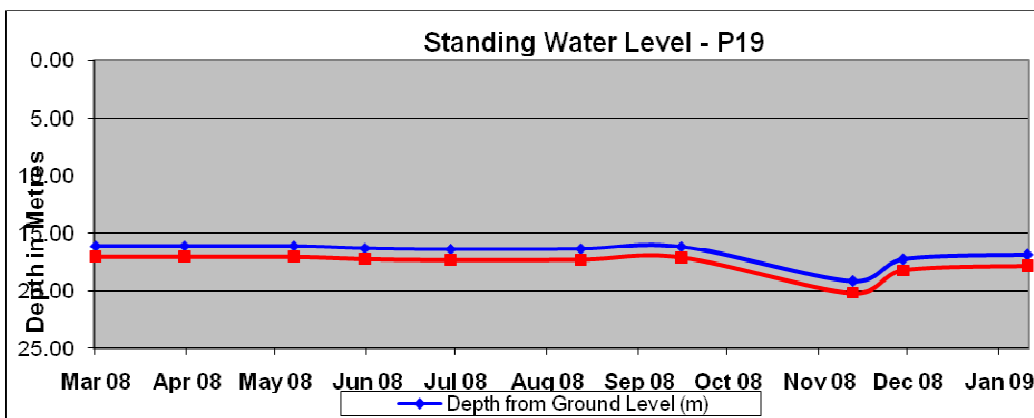
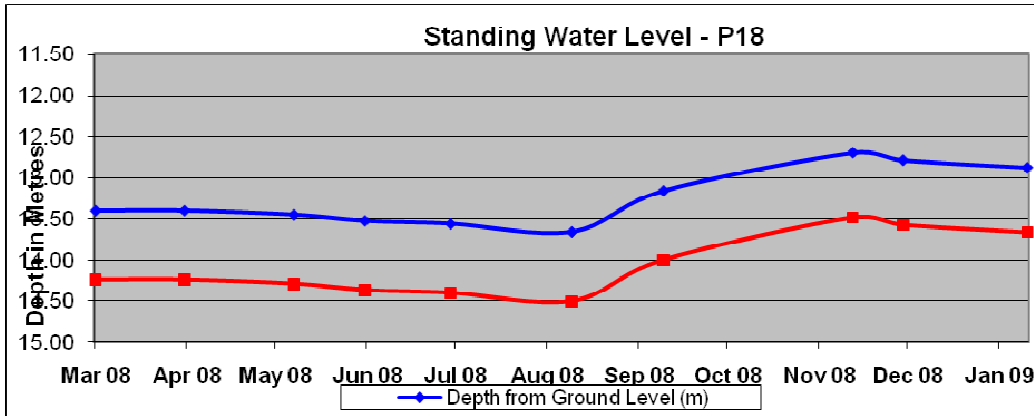


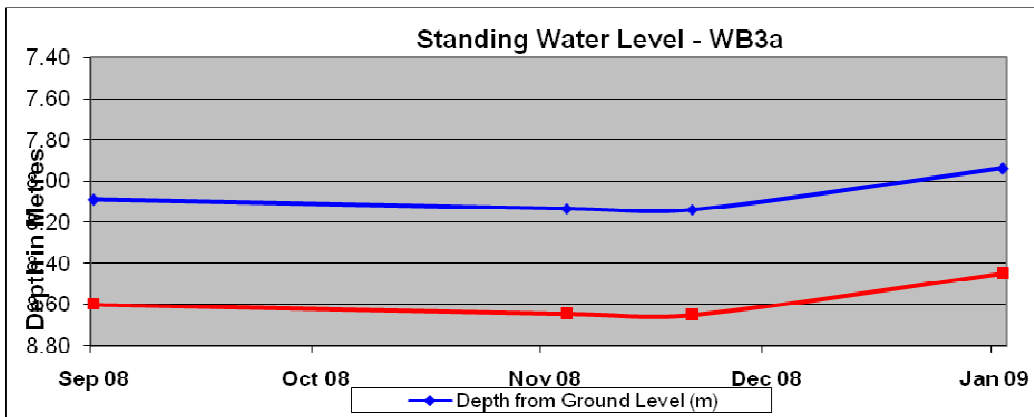
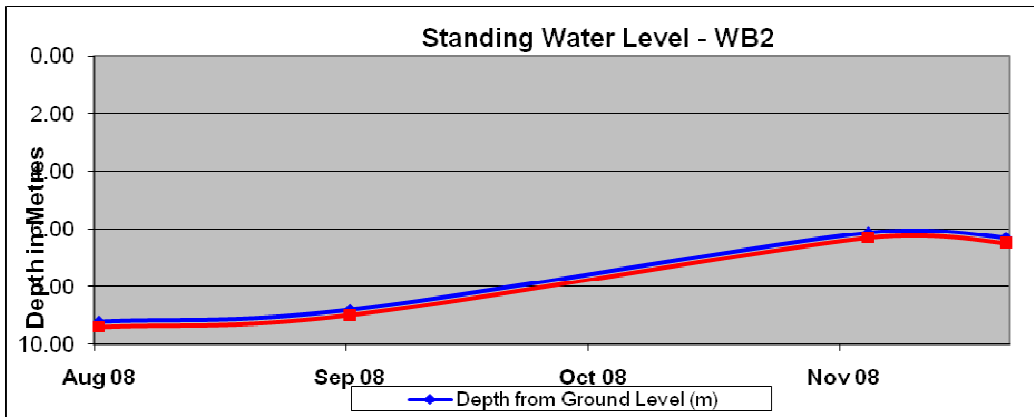
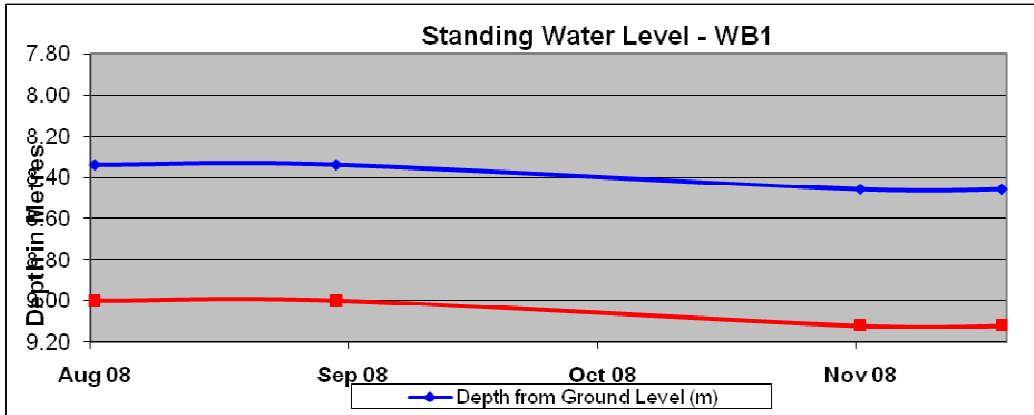


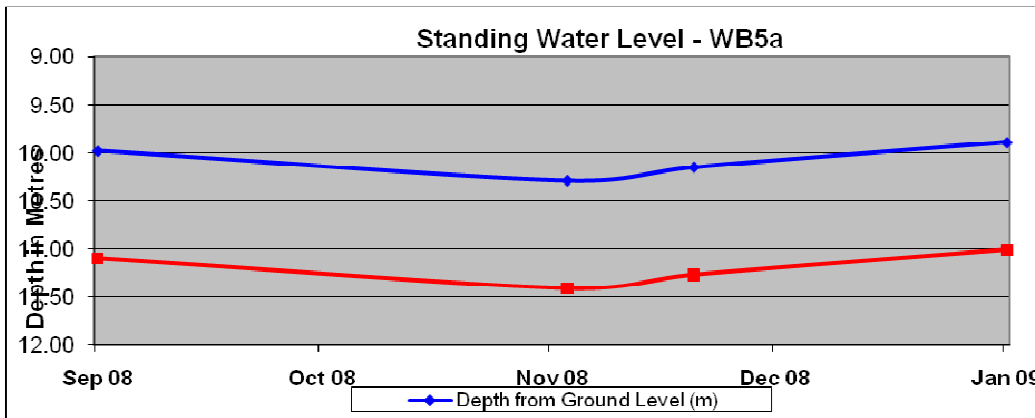
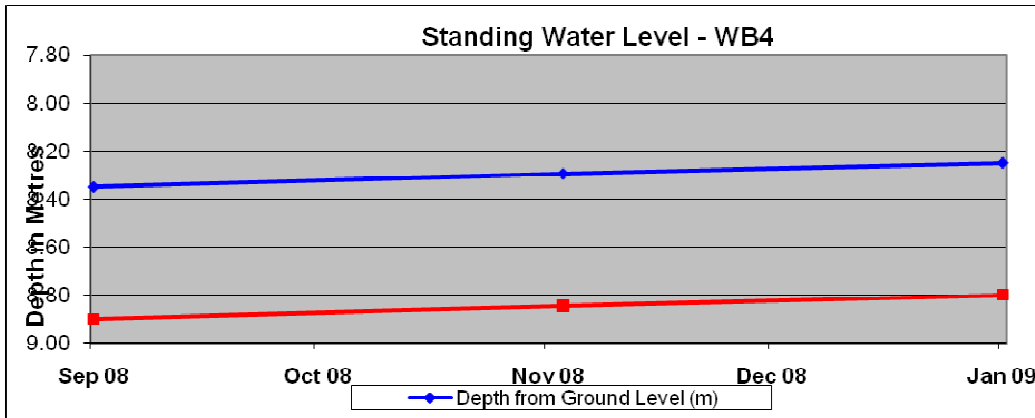
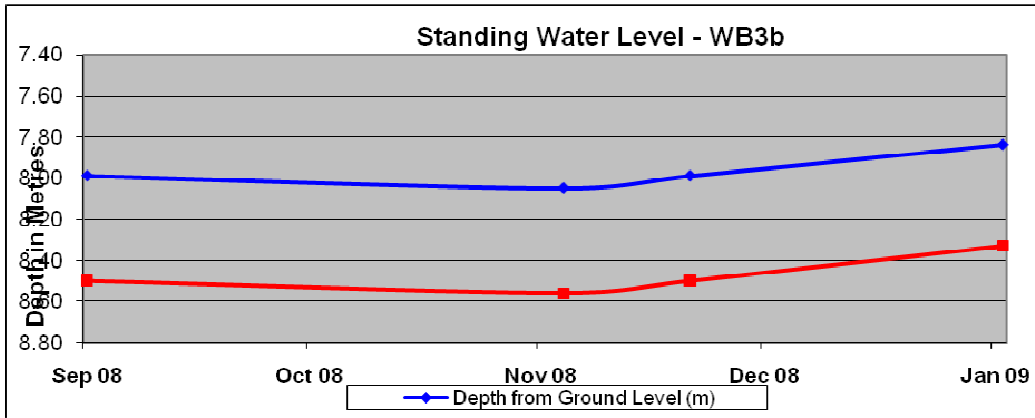


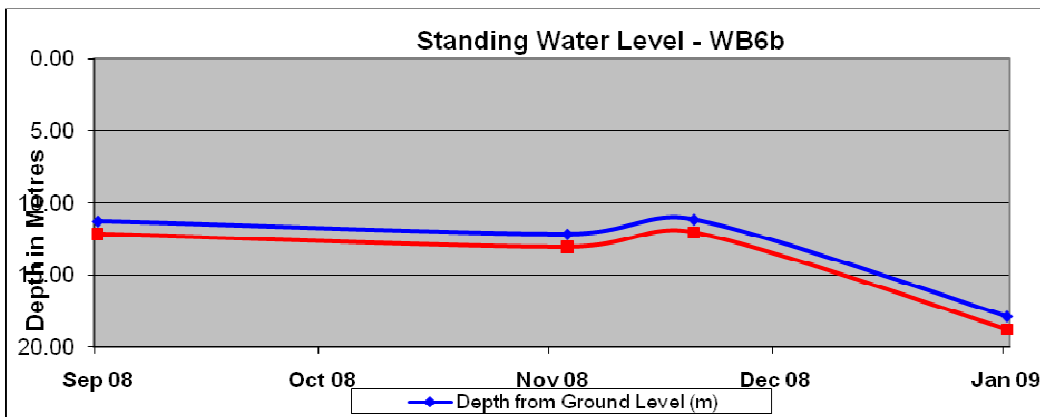
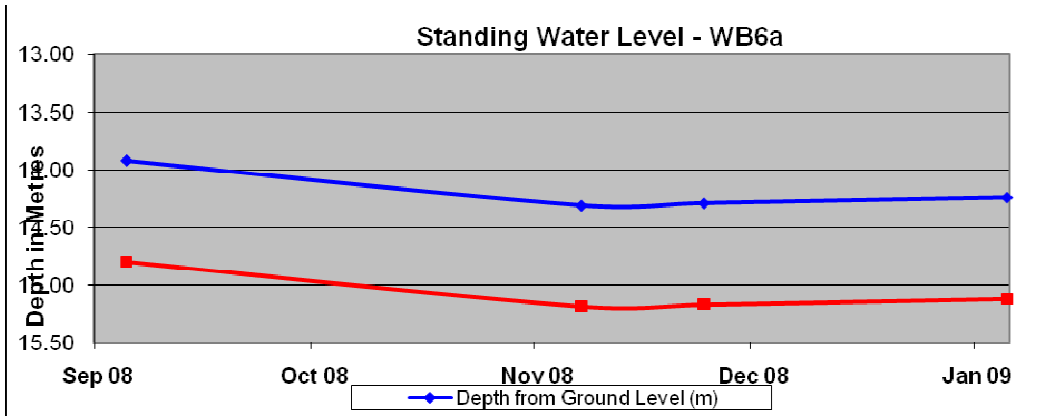
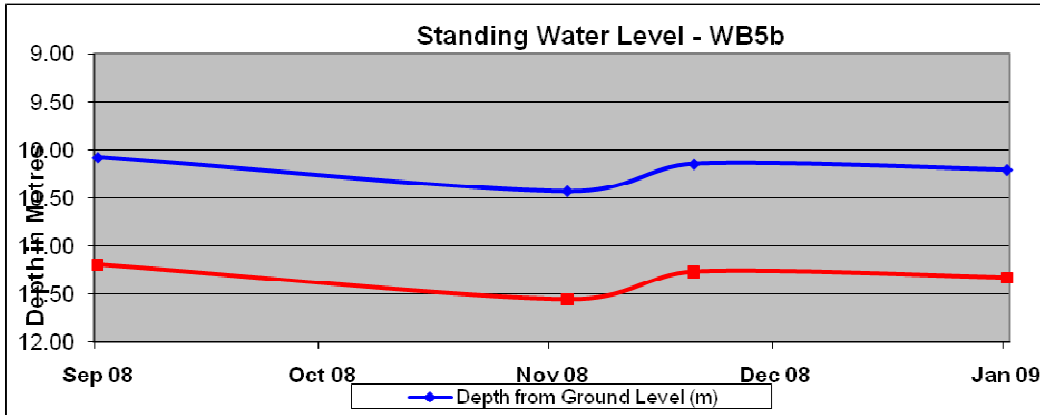


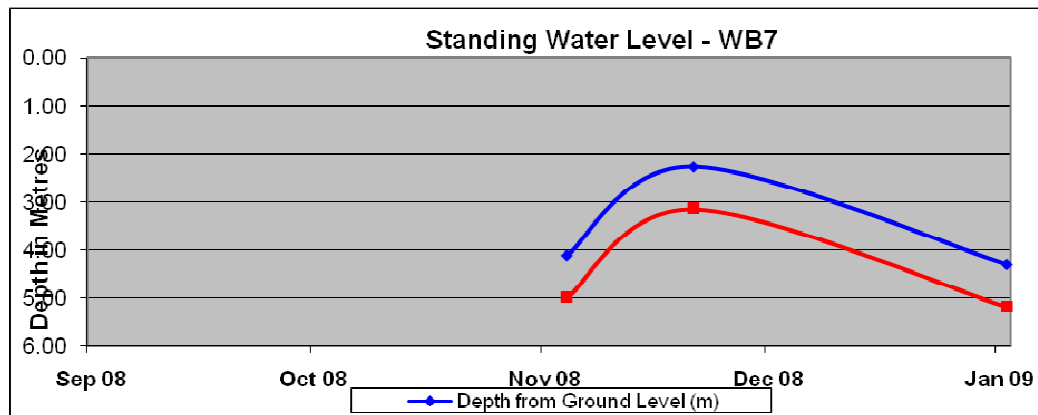












Monitoring data to date indicates minor variability with most monitoring points indicating a level of recharge in groundwater levels following rainfall over the period September to December 2008. Ongoing monitoring will allow for assessment of seasonal variations and then subsequent impact from mining operations once mining commences.

Surface Water Monitoring

A number of rainfall events have provided the opportunity for baseline water sampling upstream and downstream of the project site in Kurrajong Creek and Pine Creek.

During January 2009, officers from the Department of Environment and Climate Change visited the site in order to finalise surface water discharge locations to enable variation to the existing licence for inclusion of discharge monitoring locations and concentration thresholds. The licence variation is currently awaiting formal approval.

The following tables provide surface water sampling results obtained since the previous meeting.

Date	Time	Sample Location	pH	Electrical Conductivity (µS/cm)	Total Suspended Solids (mg/L)	Grease & Oil (mg/L)
15 December 2008	1605	KCUS	7.1	355	21	<2
15 December 2008	1614	KC2US	6.9	95	8	<2
15 December 2008	1623	KCUS	7.5	55	6	<2
15 December 2008	1645	PC	7.2	125	12	<2

15 December 2008	1700	PC1	6.9	95	8	<2
15 December 2008	1713	KC1DS	8.2	315	42	<2
15 December 2008	1725	KC2DS	7.4	185	289	<2

Date	Time	Sample Location	pH	Electrical Conductivity (us/cm)	Total Suspended Solids (mg/L)	Grease & Oil (mg/L)
29 December 2008	1535	KC1US	6.9	95	48	<2
29 December 2008	1519	KC2US	6.8	90	17	<2
29 December 2008	1500	SD5	7.4	220	362	<2
29 December 2008	1512	KCDS	7.1	450	26	<2

Complaints

There have been no formal complaints made since the previous meeting.

Discussions were held with Mr Lennox of "Kurrajong" pertaining to surface water management issues related to works on Kurrajong Creek Road during January. This matter was resolved.

Rehabilitation

Groundcover establishment has been undertaken on sections of the visual amenity bund with some areas requiring retreatment. Groundcover has also been established on the access road verge. Additional seeding is proposed for waterways, the amenity bund, the banks of surface water structures in the next few weeks. Tree planting will be undertaken at the south eastern end of the amenity bund, along the amenity bund and at strategic locations around the site during April and May 2009.