

Narrabri Coal Project Community Consultative Committee Meeting #2

Environmental Monitoring Report

Management Plan Status

Since site commencement, Narrabri Coal has developed and received Departmental Approval for the following management plans:

Environmental Management Strategy
Construction Phase Surface Water Management Plan
Noise Monitoring Program
Air Quality Monitoring Program
Blast Monitoring Program
Aboriginal Cultural Heritage Management Plan
Waste Management Plan

Currently, Narrabri Coal is developing the full site water management plan which will incorporate groundwater and surface water management requirements post commencement of mining. An Energy Savings Action Plan has also been developed and is currently under review through the Department of Environment and Climate Change.

Narrabri Coal will shortly submit the Environmental Monitoring Program for approval and will be engaging a suitably qualified consultant to develop the Landscape Management Plan as required on the project approval.

Noise Monitoring

Construction Phase:

The project approval requires quarterly noise monitoring events throughout the construction phase of the project. The first round of construction noise monitoring was programmed with Spectrum Acoustics for June 2008. Prior to this full first round of construction noise monitoring, Spectrum was engaged to assess noise levels in proximity to the "Kurrajong" residence following noise related complaints. As the property owner refused entry to the "Kurrajong" property, noise measurements were taken from the Claremont property, with the consultant required to extrapolate results back to the "Kurrajong" residence to provide modelled noise levels.

On the day of monitoring, 15th May 2008, winds were gusting up to 8m/s from the north-east and generally across the project site towards the “Kurrajong” residence. This resulted in the monitoring activity being outside DECC guidelines for wind speed, and therefore not applicable as formal monitoring results. This wind speed and direction was also the worst case scenario in terms of noise propagation from the project site to the Kurrajong and Claremont residences.

Despite the conditions, Spectrum Acoustics provided noise results for the monitoring event which resulted in a noise level attributable to construction activity of 34dB(A) at the monitoring location (adjacent to the Claremont house). Extrapolation of this noise level back to “Kurrajong” provided a construction related noise level at “Kurrajong” of 26 dB(A), well within compliance limits.

At the time of this monitoring, measurements were also taken from an area in proximity to the “Bow Hills” gravel quarry to assess noise propagation to the east. Noise results returned a noise level attributable to construction activity at 29 dB(A).

In June, the full round of construction monitoring was undertaken with results presented in the table below:

Noise monitoring results 26th June 2008

Location	Time	dB(A) Leq	Wind Speed / Direction	Noise source
Bow Hills	9:17am	41	1.5m/s SE	Traffic(39), NCM(34) , Birds(27)
Westhaven	8:43am	41	1.0m/s NW	Birds & Cows(38), NCM (36) , Plane(36)
Naroo	7:51am	47	0.5m/s NE	Traffic(45), Birds(41), NCM(34)
Greylands	8:14am	40	1.0m/s NW	Traffic(43), NCM(38) , Birds(34).
Kurrajong*	7:32am	50	0.5m/s NE	NCM(48) , Birds(42), Farm animals(35)

*Measured from Claremont/Kurrajong boundary and extrapolated.

Results from this round of monitoring indicated a 1 dB(A) exceedance at “Westhaven”, a 3dB(A) exceedance at “Greylands” and 13dB(A) modelled exceedance at “Kurrajong”. This monitoring event was undertaken on a cold, clear morning with little or no wind which was indicative of temperature inversion conditions which exacerbate noise propagation. Review of the weather station data also confirmed temperature measurements at the 10m sensor significantly higher as compared to the 2m sensor verifying temperature inversion. Extrapolation of temperature difference over 100m indicated an inversion strength of greater than 3 degrees/100m. The occurrence of inversion during monitoring events does impact on the validity

of the monitoring results, but more importantly identifies atmospheric conditions that require consideration in the day to day operation of the site to reduce noise impact. In order to assess noise levels outside of inversion conditions, Spectrum Acoustics undertook additional measurements at the Kurrajong monitoring point at 3:20pm in the afternoon of Wednesday 25th June 2008 and 9:40am in the morning on the 26th June 2008 for comparison with other data. The afternoon testing returned a noise level of <25dB(A), whilst the monitoring at 9:40 in the morning a result of 38dB(A). These actions generally confirmed the impact of inversion conditions and the reducing noise impact as inversion conditions disperse as conditions warm through the day.

In order to address inversion impacts, Narrabri Coal modified its start up times and engaged Spectrum Acoustics to undertake additional monitoring to assess noise levels, with monitoring again conducted on Friday 11th July 2008 at the Kurrajong monitoring point. Results of this monitoring is presented in the Table below. This monitoring was based on a 7am start-up for construction equipment and excavator, and 7:30am start up for dump trucks.

Noise Monitoring Results 11th July 2008

Location	Time	dB(A), Leq	Wind Speed / Direction	Noise Source
Kurrajong*	7:02am	41	0.5 m/s SE	NCM(41)
Kurrajong*	7:30am	37	0.5 m/s SE	NCM(37) , Birds(<30)
Kurrajong*	7:58am	44	0.5 m/s SE	NCM(44)
Kurrajong*	8:31am	46	0.5 m/s SE	Birds (46), NCM(<30)
Kurrajong*	9:00am	43	0.5 m/s SE	Birds (43), NCM(<30)

*Monitoring point from Kurrajong/Claremont boundary extrapolated to Kurrajong

Monitoring on this day was again influenced by inversion conditions >3 degrees/100m. Results demonstrate the impact of warming through the morning and reduction in noise propagation at the Kurrajong monitoring point. As a consequence of these findings, Narrabri Coal has in place a 7:30am start up time (as opposed to initial 7am commencement). Total noise is also expected to decrease with a reduction in surface construction equipment in the near future. The commencement of Spring will also result in warmer mornings and diminishing inversion events. Spectrum Acoustics are undertaking an additional monitoring event on 13th August 2008.

Narrabri Coal has been in liaison with the Department of Planning and the Department of Environment and Climate Change in relation to the noise exceedances and actions being implemented to minimise noise impacts.

Air Quality Monitoring

Deposited dust levels for the site to date are as presented in the tables below:

Narrabri Project 2007 Deposited Dust Annual Summary

Month	ND1 Turrabaa	ND2 Claremont	ND3 Bow Hills	ND4 Matoppo	ND5 Claremont	ND6 Willarah	ND7 Claremont	ND8 Claremont	Annual Average Limit
January 2007	0.8	1.1	0.8	2.1	1.2	1.2	2.3	1.3	4.0
February 2007	1.5	5.0	1.3	1.9	1.8	0.7	1.5	1.0	4.0
March 2007	2.3	0.9	0.8	1.0	0.5	0.4	2.5	0.5	4.0
April 2007	2.0	1.1	1.0	0.9	1.3	0.9	2.2	1.3	4.0
May 2007	1.0	1.0	0.5	0.5	0.5	0.6	0.5	0.4	4.0
June 2007	0.6	0.2	0.2	0.3	0.3	0.4	0.2	0.2	4.0
July 2007	0.8	0.4	0.5	0.9	0.7	0.5	0.4	0.4	4.0
August 2007	0.6	0.4	0.3	0.5	4.5	0.3	0.2	0.2	4.0
September 2007	1.4	0.5	0.5	0.6	0.5	0.6	0.6	0.1	4.0
October 2007	2.4	1.1	1.2	0.8	1.1	1.1	1.0	0.6	4.0
November 2007	1.4	0.9	0.6	1.2	1.0	1.4	0.8	0.2	4.0
December 2007	0.7	1.0	0.9	1.4	0.7	1.3	0.6	0.8	4.0
Annual Average	1.3	1.1	0.7	1.0	1.2	0.8	1.1	0.6	4.0

Values used are Total Insoluble Matter (g/m²/month)

Narrabri Project 2008 Deposited Dust Annual Summary

Month	ND1 Turrabaa	ND2 Claremont	ND3 Bow Hills	ND4 Matoppo	ND5 Claremont	ND6 Willarah	ND7 Claremont	ND8 Claremont	Annual Average Limit
January 2008	0.6	0.5	0.4	1.4	0.2	1.6	0.6	0.4	4.0
February 2008	0.9	0.8	0.5	1.0	2.3	6.2	1.3	0.6	4.0
March 2008	1.6	3.7	1.5	1.1	1.3	1.7	1.2	1.1	4.0
April 2008	2.5	1.1	0.9	1.2	1.7	1.0	1.0	0.6	4.0
May 2008	3.5	2.6	2.2	2.1	2.3	2.0	0.6	1.5	4.0
June 2008	4.2	1.7	3.5	0.9	1.7	0.4	1.3	0.6	4.0
July 2008									4.0
August 2008									4.0
September 2008									4.0
October 2008									4.0
November 2008									4.0
December 2008									4.0
Annual Average	2.2	1.6	1.5	1.3	1.6	2.1	1.0	0.8	4.0

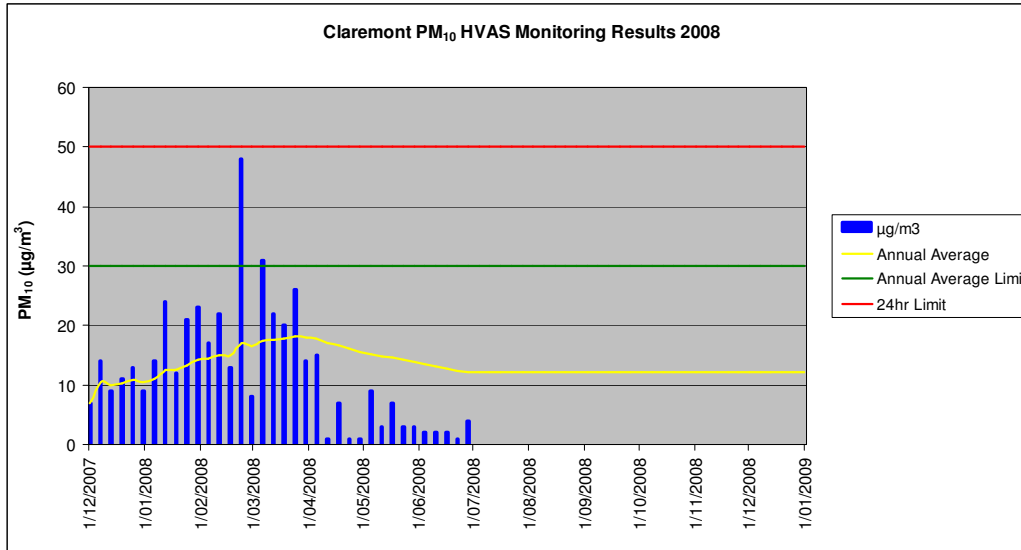
Values used are Total Insoluble Matter (g/m²/month)

The above results provide for some comparison of background levels with current levels, and will continue to be monitored over the course of the development. To date, deposited dust levels at all monitors are trending to be well within consent requirements.

PM10 measurements taken to date are presented in the following table:

Site	Datum	Zone	Easting	Northing
Claremont PM10	MGA	55	777047	6619621
Date	µg/m3	Annual Average	Annual Average Limit	24hr Limit
1/12/2007	7	7.00	30	50
7/12/2007	14	10.50	30	50
13/12/2007	9	10.00	30	50
19/12/2007	11	10.25	30	50
25/12/2007	13	10.80	30	50
31/12/2007	9	10.50	30	50
6/01/2008	14	11.00	30	50
12/01/2008	24	12.63	30	50
18/01/2008	12	12.56	30	50
24/01/2008	21	13.40	30	50
30/01/2008	23	14.27	30	50
5/02/2008	17	14.50	30	50
11/02/2008	22	15.08	30	50
17/02/2008	13	14.93	30	50
23/02/2008	48	17.13	30	50
29/02/2008	8	16.56	30	50
6/03/2008	31	17.41	30	50
12/03/2008	22	17.67	30	50
18/03/2008	20	17.79	30	50
24/03/2008	26	18.20	30	50
30/03/2008	14	18.00	30	50
5/04/2008	15	17.86	30	50
11/04/2008	1	17.13	30	50
17/04/2008	7	16.71	30	50
23/04/2008	1	16.08	30	50
29/04/2008	1	15.50	30	50
5/05/2008	9	15.26	30	50
11/05/2008	3	14.82	30	50
17/05/2008	7	14.55	30	50
23/05/2008	3	14.17	30	50
29/05/2008	3	13.81	30	50
4/06/2008	2	13.44	30	50

10/06/2008	2	13.09	30	50
16/06/2008	2	12.76	30	50
22/06/2008	1	12.43	30	50
28/06/2008	4	12.19	30	50

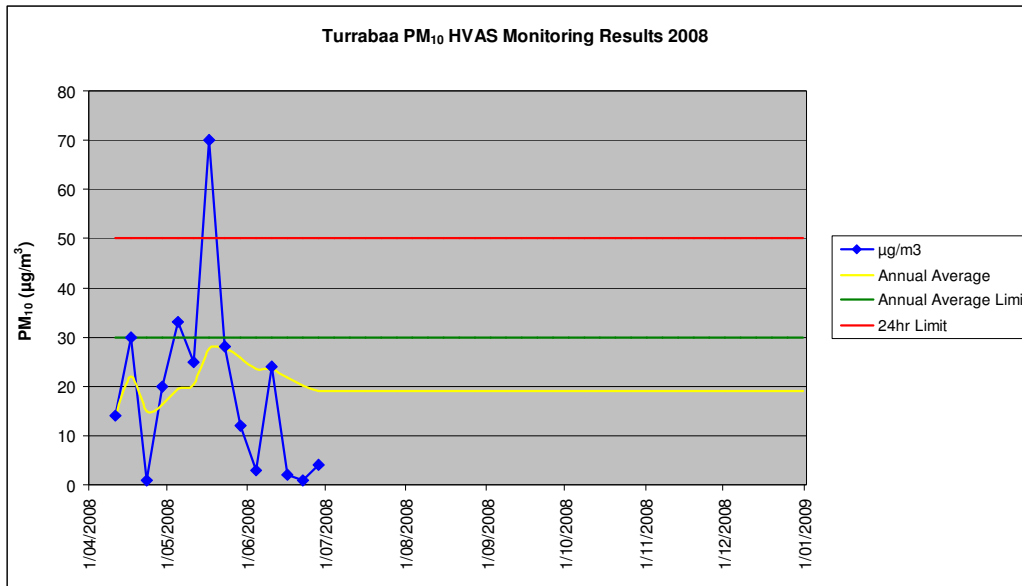


The results for the Claremont P10 indicate compliance with PM10 levels, with a general reduction in PM10 matter over the winter period.

Since the last CCC meeting the first round of results have been received for the Turrabaa PM10 monitor as presented in the Table below:

Site	Datum	Zone	Easting	Northing
Turrabaa PM10	MGA	55		
Date	µg/m3	Annual Average	Annual Average Limit	24hr Limit
11/04/2008	14	14.00	30	50
17/04/2008	30	22.00	30	50
23/04/2008	1	15.00	30	50
29/04/2008	20	16.25	30	50
5/05/2008	33	19.60	30	50
11/05/2008	25	20.50	30	50
17/05/2008	70	27.57	30	50
23/05/2008	28	27.63	30	50
29/05/2008	12	25.89	30	50
4/06/2008	3	23.60	30	50
10/06/2008	24	23.64	30	50
16/06/2008	2	21.83	30	50
22/06/2008	1	20.23	30	50

28/06/2008	4	19.07	30	50
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The results for the Turrabaa PM10 identified an exceedance in 24hr criteria in PM10 levels on Saturday 17th May 2008 with a PM10 reading of 70. Investigation into site activity and conditions at the time indicated wind gusts from the north west of up to 66km/hr. Rainfall for May up to the 17th was also limited at 4.6mm. Construction activity at the time was predominantly in relation to the Box Cut, Dam A and the permanent access road, with water cart activity confined to these areas. The most likely contributor to the high level dust reading is considered to be dust from the internal access track from the Turrabaa house to site, which travels past the PM10 monitor on the western side. Since this event, personnel have moved from the Turrabaa house to office facilities within the project area thereby removing light vehicle use of the access track from Turrabaa. Advice of the exceedance has been referred to the Department of Planning and Department of Environment and Climate Change. PM10 results since this incident have been within compliance levels.

Blast Monitoring

Four blasts were initiated as part of the construction program. All blasts were well within compliance limits, with the final blast taking place on 29th May 2008.

Groundwater Monitoring

Groundwater monitoring has commenced across the site utilising a series of 20 piezometers within and adjacent to the project area. Additional monitoring will be undertaken from a range of pumping bores surrounding the site. EA Systems of Armidale have been engaged to undertake the first round of water quality monitoring from the piezometers and pumping bores during August 2008. Due to the number of piezometers and pumping bores being monitored, the monitoring results have not been included in this report but are available for review on request. A full groundwater monitoring update will be provided at the next CCC meeting upon receipt of water quality analysis from EA Systems.

Rehabilitation

There has been limited opportunity for rehabilitation at this stage. Actions will commence shortly to seed and fertilise around the Box Cut as well as the visual amenity bund and soil stockpiles. Once this has been done, seedlings will be sought for planting out on the bund wall as well as in strategic locations around the project site.