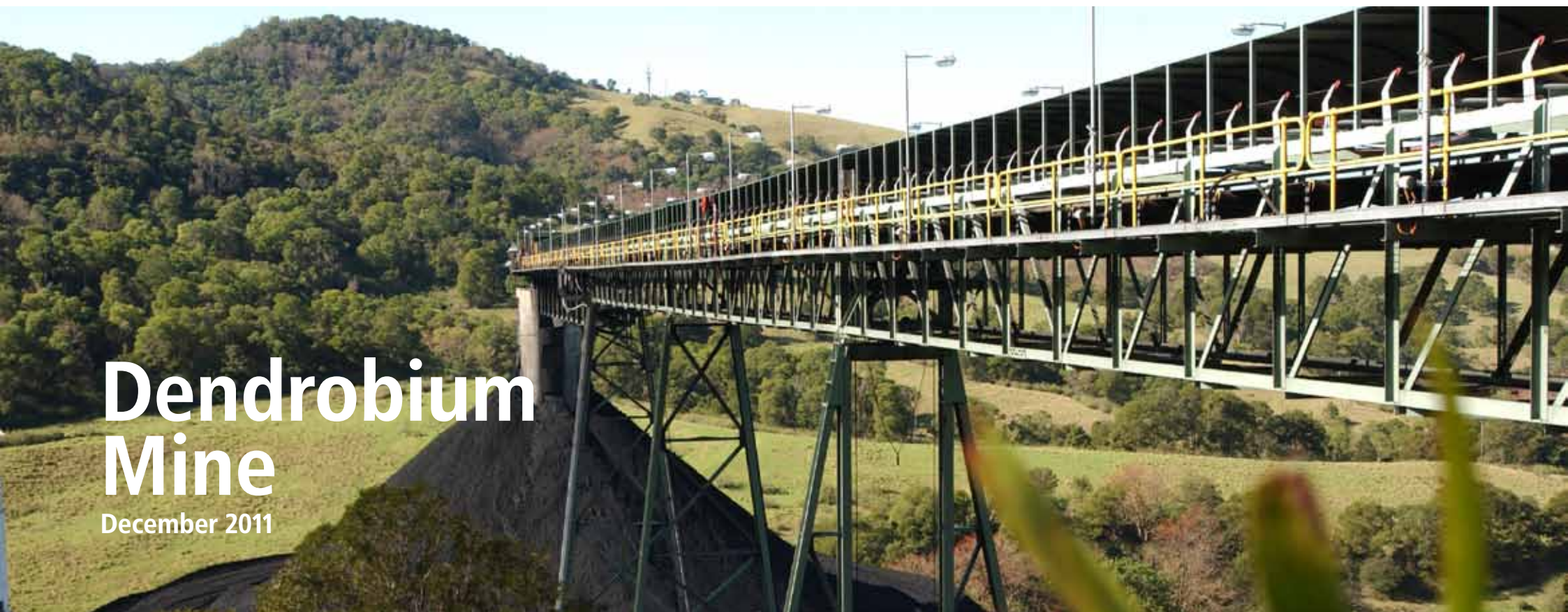




Illawarra Coal

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# Dendrobium Mine

December 2011

## Overview of operations

Dendrobium Mine is an underground mine which commenced construction in January 2002 following approval from the Minister of the then Department of Urban Affairs and Planning on 20 November 2001. Longwall mining commenced at Dendrobium in April 2005. The mine is owned and operated by Dendrobium Coal Pty Ltd, a wholly owned subsidiary of BHP Billiton. The mine operates on a continuous basis, 24 hours a day and seven days a week.

The mining operations are located immediately adjacent to Mount Kembla, approximately eight kilometres west of Wollongong, NSW. The surface facilities are located on the Illawarra escarpment near Mount Kembla village, which has close historical links with coal mining. The Pit Top has been developed on the site previously known as Nebo Colliery, which was combined with Wongawilli Colliery in 1993 to form Elouera Colliery.

Dendrobium is approved to produce up to 5.2 million tonnes of coking coal per annum with an expected mine life in excess of 20 years. BlueScope Steel in Port Kembla and OneSteel in Whyalla (South Australia) are the Illawarra Coal's major customers. In addition to these Australian-based customers coal is exported via the Port Kembla Coal Terminal to international customers.

Dendrobium Mine operates in the No. 3 Seam (Wongawilli Seam) of the Southern Coal Field. Coal from the Wongawilli Seam is an essential component of 'Illawarra Blend' premium coking coal, which is known for its specific steel-making qualities.

The raw coal mined is transferred from the mine site by covered conveyor to the Kemira Valley Coal Loading Facility

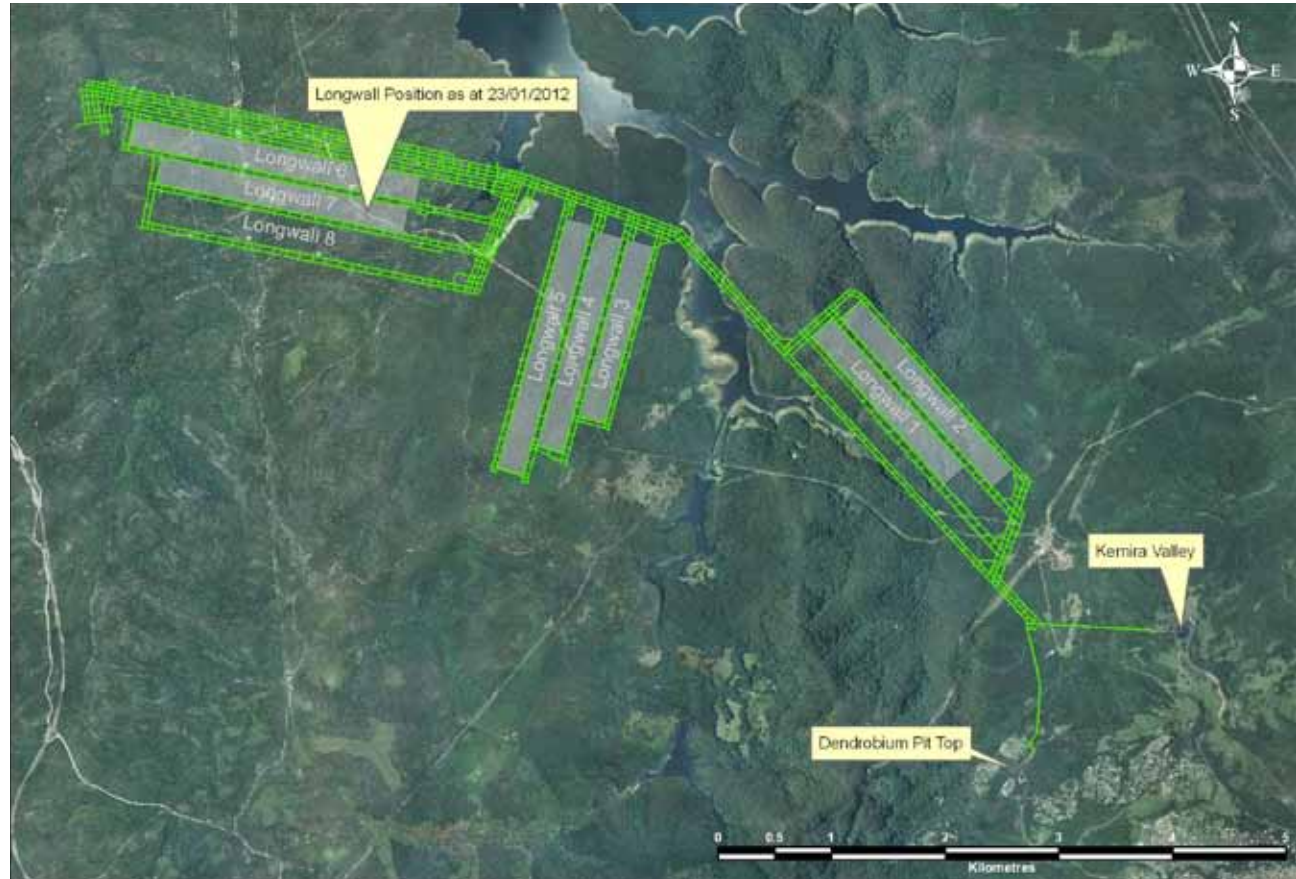
and then by rail to the Dendrobium Coal Preparation Plant seven kilometres away at Port Kembla. The coal is processed directly or placed onto raw coal stockpiles, with raw coal elevated to storage bins in preparation for processing through the plant's coal treatment modules.

The Dendrobium Coal Preparation Plant has a capacity of 535 tonnes of coal per hour, as well as large storage areas for clean and raw coal. All streams of coking coal, energy coal and the coal wash are separated and dispatched to customers via product bins.

The mine's operations are strictly controlled by a Development Consent and Environment Protection Authority Licence. Dendrobium maintains an Environmental Management System (EMS) which is certified to ISO14001 standard which covers key aspects such as air quality, noise, subsidence, water quality, and traffic.

Continuing benefits occur through continuity of employment, expendable income, export earnings and government revenue. As of April 2011 there were 269 full time employees at Dendrobium Mine, with an additional 177 contractors (full time equivalents).

## Current Longwall Position



## ENVIRONMENTAL MANAGEMENT PLANS

# Surface Facilities

Operational Environmental Management Plans detail the specific management strategies and associated monitoring programs for the key environmental aspects from an operational perspective.

The following Environmental Management Plans for Dendrobium's operations are available on the BHP Billiton website on the Regulatory Information page ([www.bhpbilliton.com/regulatoryinformation](http://www.bhpbilliton.com/regulatoryinformation)).

- ▶ Dendrobium Environmental Management Plan – Water
- ▶ Dendrobium Environmental Management Plan–Air Quality
- ▶ Dendrobium Environmental Management Plan – Noise
- ▶ Dendrobium Environmental Management Plan – Traffic
- ▶ Dendrobium Environmental Management Plan – Lighting
- ▶ Dendrobium Environmental Management Plan – Bushfire
- ▶ Dendrobium Environmental Management Plan – Waste
- ▶ Illawarra Coal Greenhouse Gas and Energy Management Plan
- ▶ Dendrobium Environmental Management Plan – Greenhouse Gas and Energy Efficiency

Please note the landscape management plan is yet to be approved hence there is currently no report available.

## ENVIRONMENTAL MANAGEMENT PLANS

# Subsidence Management Plans

Subsidence Management Plans (SMP) detail the specific management strategies and associated monitoring programs for the key subsidence related aspects from a specific mining area (e.g. Area 3A). The SMP is required to be approved prior to the commencement of longwall extraction in a mining area.

Various monitoring programs described in the SMP are required for a period up to five years after the completion of mining. Interpreted results of these monitoring programs are reported in Annual Environmental Management Reports.

The plan relates to:

- ▶ Surface features, including Aboriginal archaeology and European heritage;
- ▶ Surface and sub-surface water ▶ Landscapes ▶ Terrestrial and aquatic ecology.

The SMP consists of a number of monitoring and management plans, which continue to evolve and develop as monitoring program results are analysed. These programs reflect improvements from feedback loops integrated and designed into the monitoring and management framework.

The following SMP documents for Dendrobium Area 3A are available on the BHP Billiton website on the Regulatory Information page ([www.bhpbilliton.com/regulatory](http://www.bhpbilliton.com/regulatory) information):

- ▶ Dendrobium Area 3A SMP application letter;
- ▶ Dendrobium Area 3A SMP Part A – Written Report (Sections 1-7);

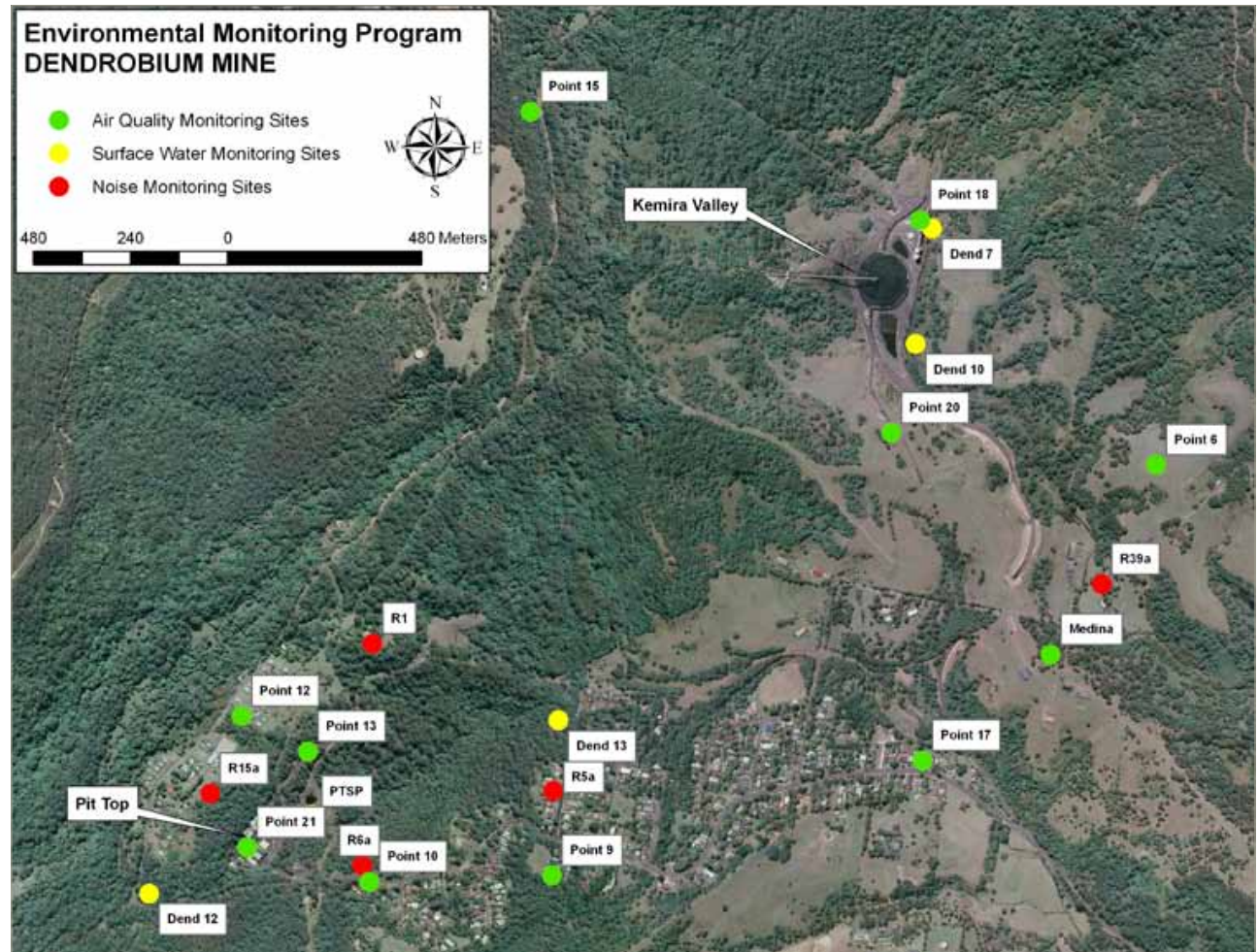
- ▶ Dendrobium Area 3A SMP Part A – Written Report (Sections 8-14);
- ▶ Dendrobium Area 3A SMP Part B – Subsidence Management Plan;
- ▶ Dendrobium Area 3A Aboriginal Heritage Plan (May 2009);
- ▶ Dendrobium Area 3A Swamp Impact, Monitoring, Management and Contingency Plan (December 2009);
- ▶ Dendrobium Area 3A Groundwater Monitoring Program (December 2009);
- ▶ Dendrobium Area 3A Water course Impact Monitoring, Management and Contingency Plan (December 2009).

## DENDROBIUM AREA 3A SMP PART C

- ▶ Approved Plan
- ▶ Plan 1
- ▶ Plan 2 Surface Features
- ▶ Plan 3A Depth of Cover
- ▶ Plan 3B Geology
- ▶ Plan 5 Land Ownership and Titles
- ▶ Plan 6 Geological Section
- ▶ Plan 7 Orthophoto Plan

## ENVIRONMENTAL MONITORING

# Air, Noise and Surface Water Monitoring Results



ENVIRONMENTAL MONITORING

# Air Monitoring Results

**POINT 6**

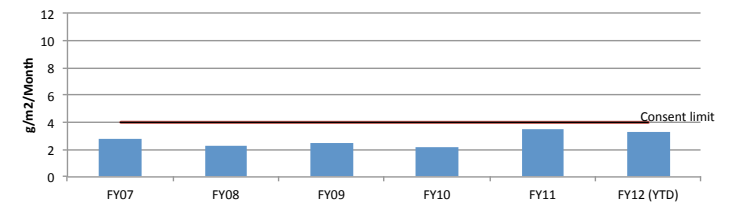
Location – Figtree Farm

Type of Monitoring – Dust Deposition Gauge

Criteria – 4 g/m<sup>2</sup>/month (EPA Amenity Goal)

TOTAL INSOLUBLE MATTER			
Month	Monthly Results	12 Month Moving Av	Comments
December-10	2.4	1.13	
January-11	2.0	1.07	
February-11	1.2	1.01	
March-11	1.0	1.00	
April-11	1.5	1.09	
May-11	27.0	3.30	20% Insects and 80% Vegetation
June-11	0.4	3.30	
July-11	1	3.31	
August-11	0.3	3.27	
September-11	0.5	3.23	
October-11	0.3	3.2	
November-11	2.2	3.32	

Total Insoluble Matter – Annual Average – Point 6



ENVIRONMENTAL MONITORING

# Air Monitoring Results

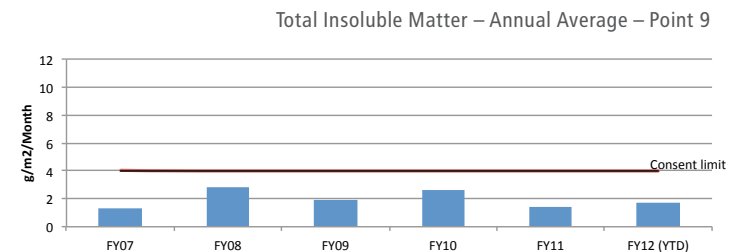
## POINT 9

Location – Mount Kembla Public School, Mount Kembla

Type of Monitoring – Dust Deposition Gauge

Criteria – 4 g/m<sup>2</sup>/month (EPA Amenity Goal)

TOTAL INSOLUBLE MATTER			
Month	Monthly Results	12 Month Moving Av	Comments
December-10	1.5	1.08	
January-11	2.4	1.17	
February-11	0.9	1.14	
March-11	3.8	1.36	
April-11	1.3	1.41	
May-11	0.8	1.38	
June-11	0.6	1.37	
July-11		1.39	Sample not analysed due to broken bottle
August-11	1.1	1.42	
September-11	2.7	1.59	
October-11	1.1	1.6	
November-11	3.1	1.76	



ENVIRONMENTAL MONITORING

# Air Monitoring Results

**POINT 10**

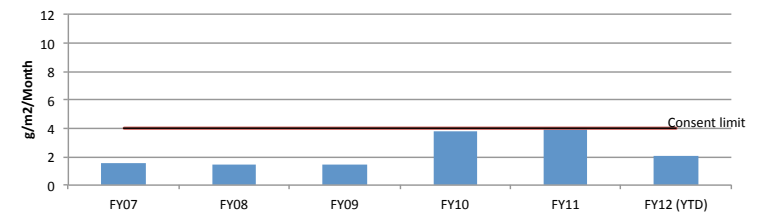
Location – 374 Cordeaux Road, Mount Kembla

Type of Monitoring – Dust Deposition Gauge

Criteria – 4 g/m<sup>2</sup>/month (EPA Amenity Goal)

TOTAL INSOLUBLE MATTER			
Month	Monthly Results	12 Month Moving Av	Comments
December-10	3.6	3.85	
January-11	1.5	3.80	
February-11	1.5	3.79	
March-11	4.5	4.05	
April-11	1.9	4.12	
May-11	0.5	4.06	
June-11	0.7	4.03	
July-11	0.8	4.00	
August-11	0.3	3.94	
September-11	2.0	3.97	
October-11	1.4	1.73	
November-11	5.6	2.03	

Total Insoluble Matter – Annual Average – Point 10



ENVIRONMENTAL MONITORING

# Air Monitoring Results

**POINT 12**

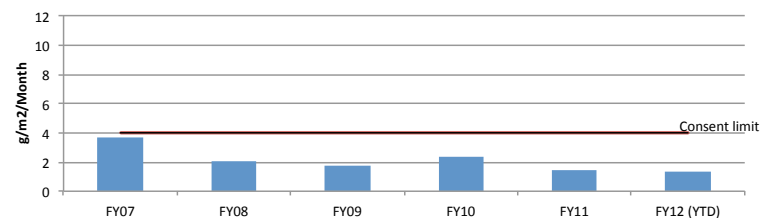
Location – 55 Harry Graham Drive, Kembla Heights

Type of Monitoring – Dust Deposition Gauge

Criteria – 4g/m2/month (EPA Amenity Goal)

TOTAL INSOLUBLE MATTER			
Month	Monthly Results	12 Month Moving Av	Comments
December-10	6.9	1.68	
January-11	1.1	1.7	
February-11	1.3	1.68	
March-11	0.8	1.66	
April-11	0.6	1.66	
May-11	0.3	1.65	
June-11	0.7	1.68	
July-11	0.4	1.62	
August-11	0.2	1.58	
September-11	0.6	1.46	
October-11	0.8	1.25	
November-11	2.4	1.34	

Total Insoluble Matter – Annual Average – Point 12



ENVIRONMENTAL MONITORING

# Air Monitoring Results

## POINT 15

Location – 151 Harry Graham Drive, Kembla Heights

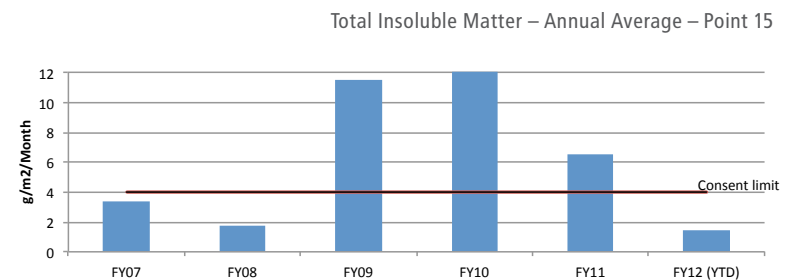
Type of Monitoring – Dust Deposition Gauge

Criteria – 4 g/m<sup>2</sup>/month (EPA Amenity Goal)

TOTAL INSOLUBLE MATTER			
Month	Monthly Results	12 Month Moving Av	Comments
December-10	5.8	7.14	
January-11	1.2	7.07	
February-11	1.2	7.03	
March-11	1.2	6.74	
April-11	1.6	6.78	
May-11	0.4	6.61	
June-11	0.5	6.57	
July-11	1.8	6.0	
August-11	0.4	2.68	
September-11	0.8	1.42	
October-11	1	1.42	
November-11	1.6	1.46	

Comments

A high amount of bird droppings were considered to be causing high results in this dust gauge. As a preventative measure, a metal halo was placed above the dust gauge to deter birds from perching on the gauge itself. Since its installation in December 2009, the levels of insoluble matter has decreased. The August 2010 sample was found to be contaminated by bird droppings once again. Bird spikes have been installed as a further preventative measure. Since their installation, the levels of insoluble matter has decreased.



ENVIRONMENTAL MONITORING

# Air Monitoring Results

**POINT 17**

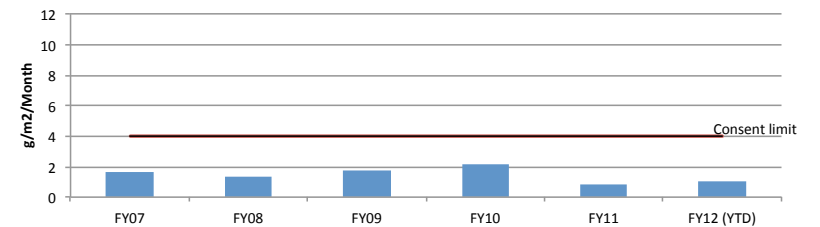
Location – 206 Cordeaux Road, Mount Kembla

Type of Monitoring – Dust Deposition Gauge

Criteria – 4 g/m<sup>2</sup>/month (EPA Amenity Goal)

TOTAL INSOLUBLE MATTER			
Month	Monthly Results	12 Month Moving Av	Comments
December-10	1.3	0.93	
January-11	0.8	0.85	
February-11	1.0	0.87	
March-11	2.0	0.93	
April-11	0.4	0.92	
May-11	0.2	0.83	
June-11	0.8	0.86	
July-11	1.8	0.95	
August-11	0.5	0.93	
September-11	0.7	0.93	
October-11	1.2	0.98	
November-11	1.6	1.03	

Total Insoluble Matter – Annual Average – Point 17



ENVIRONMENTAL MONITORING

# Air Monitoring Results

**POINT 20**

Location – North of stock pile at Kemira Valley  
Type of Monitoring – High Volume Air Sampler

Criteria –

PM10 24-Hour Average: 50ug/m3

PM10 Annual Average: 30ug/m3

RESULTS FOR 2010/11 – PARTICULATE MATTER < 10UM (PM10) [ug/m <sup>3</sup> ]			
Month	Monthly Results	12 Month Moving Av	Comments
January-11	26.3	17.5	
February-11	22.4	17.6	
March-11	17.8	17.9	
April-11	7.1	16.6	
May-11	9.0	16.3	
June-11	10.9	16.1	
July-11	9.1	15.3	
August-11	7.4	15.0	
September-11	18.8	15.7	
October-11	10	14.46	
November-11	24.5	14.95	
December-11	11.8	14.6	

## ENVIRONMENTAL MONITORING

# Air Monitoring Results

### POINT 20

Location – North of stock pile at Kemira Valley  
Type of Monitoring – High Volume Air Sampler

Criteria –  
TSP Annual Average: 90ug/m3

RESULTS FOR 2010/11 – TOTAL SUSPENDED PARTICULATES (TSP) [ug/m <sup>3</sup> ]			
Month	Monthly Results	12 Month Moving Av	Comments
January-11	42.8	29.5	
February-11	29.5	27.4	
March-11	17.8	23.8	
April-11	19.6	23.5	
May-11	16.6	23.2	
June-11	33.5	22.5	
July-11	17.8	22.3	
August-11	24.7	22.3	
September-11	31.5	23.4	
October-11	24.8	27.08	
November-11	18.6	25.89	
December-11	24.3	25.13	

## ENVIRONMENTAL MONITORING

# Air Monitoring Results

### POINT 21

Location – Roof of Bathhouse Building: Dendrobium Pit Top site  
Type of Monitoring – High Volume Air Sampler

Criteria –

PM10 24-Hour Average: 50ug/m3

PM10 Annual Average: 30ug/m3

RESULTS FOR 2010/11 – PARTICULATE MATTER < 10UM (PM10) [ug/m <sup>3</sup> ]			
Month	Monthly Results	12 Month Moving Av	Comments
January-11	29.9	23.6	
February-11	17.9	22.0	
March-11	9.9	19.2	
April-11	30.2	20.7	
May-11	10.9	20.7	
June-11	4.8	20.0	
July-11	8.0	19.5	
August-11	11.0	18.8	
September-11	15.0	18.7	
October-11	10.8	18.04	
November-11	25.3	17.95	
December-11	12.2	15.5	

## ENVIRONMENTAL MONITORING

# Air Monitoring Results

### POINT 21

Location – Roof of Bathhouse Building: Dendrobium Pit Top site  
Type of Monitoring – High Volume Air Sampler

Criteria –  
TSP Annual Average: 90ug/m3

RESULTS FOR 2010/11 – TOTAL SUSPENDED PARTICULATES (TSP) [ug/m <sup>3</sup> ]			
Month	Monthly Results	12 Month Moving Av	Comments
January-11	71.1	52.6	
February-11	71.7	51.5	
March-11	32.6	50.8	
April-11	21.1	47.7	
May-11	74.8	49.2	
June-11	22.6	48.5	
July-11	44.1	50.3	
August-11	21.5	49.6	
September-11	34.5	47.8	
October-11	43.3	47.62	
November-11	65.1	46.78	
December-11	29.2	44.3	

**ENVIRONMENTAL MONITORING**

# Noise Monitoring Results

**RECEIVER LOCATION R1**

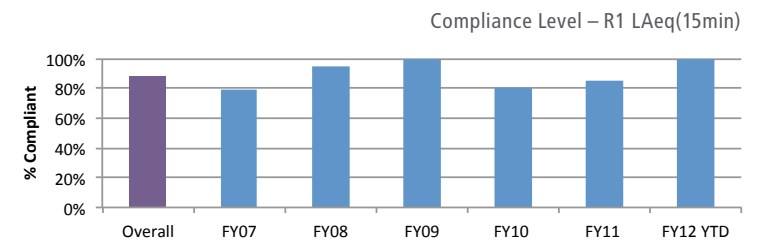
Location – Old Mine Managers Residence, Kembla Heights

Types of Monitoring – Attended Noise Monitoring

Frequency – Every 3 Months

The information below presents a summary of the results from the most recent quarterly monitoring campaign along with the compliance levels for this reporting year (i.e. June to July). For a more detailed analysis of the results, please refer to the Quarterly Noise Monitoring Report or the Annual Environmental Management Report (submitted in September each year).

DAY				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	3.00pm	40	42	
26/10/11	3.15pm	40	41	
27/10/11	12.40pm	40	32	
27/10/11	12.55pm	40	36	
EVENING				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	6.00pm	40	37	
26/10/11	6.15pm	40	39	
27/10/11	6.30pm	40	32	
27/10/11	6.45pm	40	30	
NIGHT				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	11.35pm	39	34	
26/10/11	11.50pm	39	33	
27/10/11	11.15pm	39	38	
27/10/11	11.30pm	39	30	



ENVIRONMENTAL MONITORING

# Noise Monitoring Results

**RECEIVER LOCATION R5A**

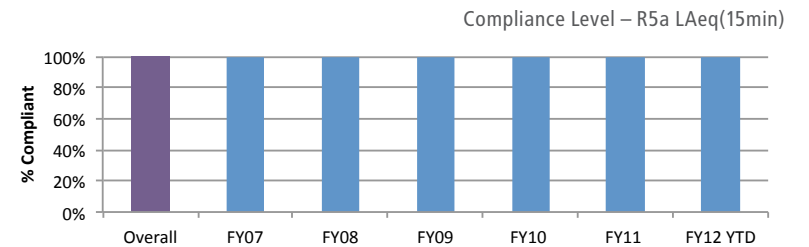
Location – 8 Benjamin Road, Mount Kembla

Type of Monitoring – Attended Noise Monitoring

Frequency – Every 3 Months

The information below presents a summary of the results from the most recent quarterly monitoring campaign along with the compliance levels for this reporting year (i.e. June to July). For a more detailed analysis of the results, please refer to the Quarterly Noise Monitoring Report or the Annual Environmental Management Report (submitted in September each year).

DAY				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	4.45pm	40	Inaudible	
26/10/11	5.00pm	40	Inaudible	
EVENING				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	7.55pm	40	Inaudible	
26/10/11	8.10pm	40	Inaudible	
NIGHT				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	1.25am	37	Inaudible	
26/10/11	1.40am	37	Inaudible	



**ENVIRONMENTAL MONITORING**

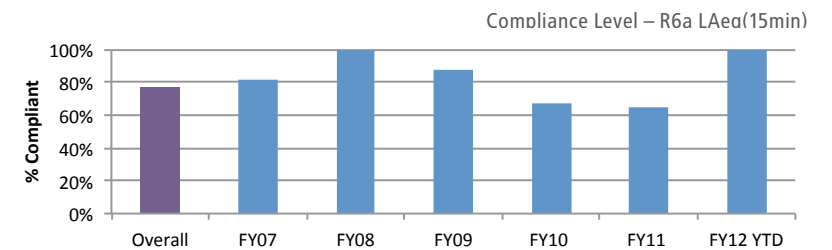
# Noise Monitoring Results

**RECEIVER LOCATION R6A**

Location – 374 Cordeaux Road, Mount Kembla  
Type of Monitoring – Attended Noise Monitoring  
Frequency – Every 3 Months

The information below presents a summary of the results from the most recent quarterly monitoring campaign along with the compliance levels for this reporting year (i.e. June to July). For a more detailed analysis of the results, please refer to the Quarterly Noise Monitoring Report or the Annual Environmental Management Report (submitted in September each year).

DAY				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	4.10pm		40	
26/10/11	4.25pm		39	
27/10/11	1.25pm		42	
27/10/11	2.05pm		41	
EVENING				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	7.15pm		37	
26/10/11	7.30pm		40	
27/10/11	7.45pm		37	
27/10/11	8.00pm		37	
NIGHT				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	12.45am		37	
26/10/11	1.00am		37	
27/10/11	12.00am		37	
27/10/11	12.15am		37	



ENVIRONMENTAL MONITORING

# Noise Monitoring Results

**RECEIVER LOCATION R15A**

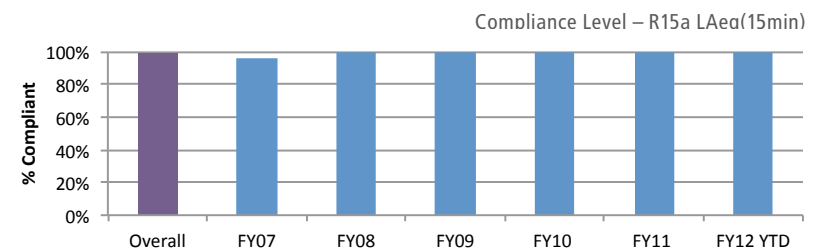
Location – View Street, Kembla Heights

Type of Monitoring – Attended Noise Monitoring

Frequency – Every 3 Months

The information below presents a summary of the results from the most recent quarterly monitoring campaign along with the compliance levels for this reporting year (i.e. June to July). For a more detailed analysis of the results, please refer to the Quarterly Noise Monitoring Report or the Annual Environmental Management Report (submitted in September each year).

DAY				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	2.30pm	40	Inaudible	
26/10/11	2.45pm	40	Inaudible	
EVENING				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	6.40pm	40	Inaudible	
26/10/11	6.55pm	40	Inaudible	
NIGHT				
Date	Time	Criteria	Estimate Mine Noise	Comments
27/10/11	12.05am	39	Inaudible	
27/10/11	12.20am	39	Inaudible	



ENVIRONMENTAL MONITORING

# Noise Monitoring Results

## RECEIVER LOCATION R39A

Location – Figtree Farm

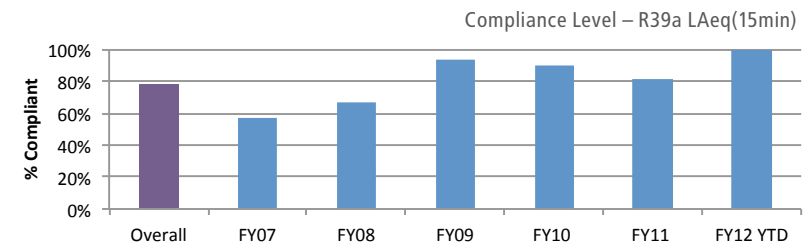
Type of Monitoring – Attended Noise Monitoring

Frequency – Every 3 Months

The information below presents a summary of the results from the most recent quarterly monitoring campaign along with the compliance levels for this reporting year (i.e. June to July). For a more detailed analysis of the results, please refer to the Quarterly Noise Monitoring Report or the Annual Environmental Management Report (submitted in September each year).

DAY				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	5.30pm	40	37	
26/10/11	5.45pm	40	35	
27/10/11	3.00pm	40	36	
27/10/11	3.15pm	40	36	
EVENING				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	8.40pm	40	34	
26/10/11	8.55pm	40	34	
27/10/11	8.30pm	40	33	
27/10/11	8.45pm	40	33	
NIGHT				
Date	Time	Criteria	Estimate Mine Noise	Comments
26/10/11	2.10am	37	34	
26/10/11	2.25am	37	34	
27/10/11	12.50am	37	33	
27/10/11	1.05am	37	33	

Comments:  
Rill tower door replacement program completed November 2010. All steel doors have been replaced with rubber ones.



**ENVIRONMENTAL MONITORING**

# Surface Water Monitoring Results

**DEND 7**

Location – Upstream of Kemira Valley Coal Loading Facility

Type of Monitoring – Surface Water Sampling

Frequency – Every 2 Months

Month	pH	Conductivity us/cm	Total Suspended Solids mg/L	Oil and Grease mg/L	Comments
Jan-10	7.97	602	<1	<5	
Mar-10	8.13	480	2	<5	
May-10	7.47	511	1	<5	
Jul-10	8.15	441	8	<5	
Sep-10	8.40	525	2	<5	
Nov-11	8.00	380	23	<5	
Jan-11	8.00	440	<5	<5	
Mar-11	7.90	480	18	<5	
May-11	8.40	466	<5	<5	
Jul-11	7.9	442	<5	<5	
Sep-11	8.2	453	<5	<5	
Nov-11	8.2	427	<5	<5	

**ENVIRONMENTAL MONITORING**

# Surface Water Monitoring Results

**DEND 10**

Location – Downstream of Kemira Valley Coal Loading Facility

Type of Monitoring – Surface Water Sampling

Frequency – Every 2 Months

Month	pH	Conductivity us/cm	Total Suspended Solids mg/L	Oil and Grease mg/L	Comments
Jan-10	8.38	637	2	<5	
Mar-10	8.34	496	3	<5	
May-10	7.67	587	1	<5	
Jul-10	8.27	457	3	<5	
Sep-10	8.75	540	2	<5	
Nov-11	8.30	380	21	<5	
Jan-11	8.00	420	6	<5	
Mar-11	8.00	500	16	<5	
May-11	8.40	466	<5	<5	
Jul-11	8.00	450	<5	<5	
Sep-11	8.40	474	6	<5	
Nov-11	8.5	439	<5	<5	

**ENVIRONMENTAL MONITORING**

# Surface Water Monitoring Results

**DEND 12**

Location – Upstream of the Pit Top site

Type of Monitoring – Surface Water Sampling

Frequency – Every 2 Months

Month	pH	Conductivity us/cm	Total Suspended Solids mg/L	Oil and Grease mg/L	Comments
Jan-10	8.30	280	6	<5	
Mar-10	7.59	284	1	<5	
May-10	7.50	285	<1	<5	
Jul-10	7.82	255	1	<5	
Sep-10	7.66	264	<1	<5	
Nov-11	7.70	222	2	<5	
Jan-11	7.80	220	<5	<5	
Mar-11	7.90	530	7	<5	
May-11	7.60	273	16	<5	
Jul-11	7.50	252	<5	<5	
Sep-11	7.40	252	<5	<5	
Nov-11	7.4	257	<5	<5	

**ENVIRONMENTAL MONITORING**

# Surface Water Monitoring Results

**DEND 13**

Location – Downstream of the Pit Top site

Type of Monitoring – Surface Water Sampling

Frequency – Every 2 Months

Month	pH	Conductivity us/cm	Total Suspended Solids mg/L	Oil and Grease mg/L	Comments
Jan-10	8.51	1100	5	<5	
Mar-10	8.47	712	<1	<5	
May-10	8.64	1080	<1	<5	
Jul-10	8.07	533	<1	<5	
Sep-10	8.31	542	<1	<5	
Nov-11	8.20	350	2	<5	
Jan-11	7.90	440	<5	<5	
Mar-11	7.90	530	7	<5	
May-11	8.30	485	<5	<5	
Jul-11	7.90	381	<5	<5	
Sep-11	8.10	540	<5	<5	
Nov-11	7.9	346	<5	<5	

## ENVIRONMENTAL MONITORING

# Licensed Discharge Point #5 Monitoring Results

The Licensed Discharge Point #5 (LDP5) monitoring program is conducted in accordance with Dendrobium's Environmental Protection Licence (EPL) and the Water Management Plan. The program consists of a grab sample taken at the pipeline end point with additional grab samples taken upstream and downstream in Allans Creek. The following parameters are required to be tested as part of the program:

- ▶ pH, Conductivity
- ▶ Total Suspended Solids (TSS) [mg/L]
- ▶ Oil and Grease [mg/L]
- ▶ Total Metals (Copper(Cu), Zinc(Zn), Arsenic(As), Nickel(Ni)) [mg/L]

The results from the monitoring, which is undertaken by environmental consultants, are compared to the limit conditions as set out in the EPL and via the Annual Environmental Management Report and the EPA Annual Return. The information below presents a summary of the LDP5 results from the last 6 months and compares the results to the limits as specified in the EPL. For a more detailed analysis of the results, please refer to the Annual Environmental Management Report (submitted in September each year) or EPA Annual Return

Date	Discharging	pH (pH units)	Conductivity (uS/cm)	Total Suspended Solids (mg/L)	As (mg/L)	cu (mg/L)	Ni (mg/L)	Zinc (mg/L)	Oil and Grease (mg/L)
08-Apr-11	Yes	7.8	1640	<5	0.015	0.002	0.01	0.026	<5
15-Apr-11	Yes	7.6	1640	8	0.016	<0.001	0.009	0.032	<5
27-Apr-11	Yes	7.6	2240	<5	0.02	0.004	0.011	0.026	<5
02-May-11	Yes	7.7	1880	<5	0.022	<0.001	0.012	0.029	<5
10-May-11	Yes	7.6	1950	<5	0.018	0.001	0.011	0.025	<5
18-May-11	Yes	7.7	2030	<5	0.019	<0.001	0.01	0.022	<5
01-Jun-11	Yes	8	1440	77	0.014	0.006	0.009	0.049	<5
15-Jun-11	Yes	8.6	17300	<5	0.544	0.006	0.612	0.046	<5
29-Jun-11	Yes	7.5	1700	<5	0.023	<0.001	0.011	0.024	<5
13-Jul-11	Yes	7.6	1850	<5	0.025	<0.001	0.012	0.024	<5
27-Jul-11	Yes	7.5	1910	<5	0.019	<0.001	0.011	0.02	<5
10-Aug-11	Yes	8.4	11800	<5	0.354	0.004	0.42	0.044	<5
24-Aug-11	Yes	7.5	2080	<5	0.022	<0.001	0.01	0.083	<5
07-Sep-11	Yes	7.5	1930	<5	0.021	<0.001	0.013	0.016	<5
21-Sep-11	Yes	7.4	1980	<5	0.02	0.002	0.011	0.024	<5
5-Oct-11	Yes	7.5	1950	<5	0.02	0.001	0.012	0.015	<5
19-Oct-11	Yes	7.5	1900	<5	0.023	<0.001	0.012	0.015	<5
2-Nov-11	Yes	7.6	1720	<6	0.015	0.002	0.01	0.019	<5
16-Nov-11	Yes	7.6	1850	<5	0.018	0.001	0.01	0.012	<5
30-Nov-11	Yes	7.5	16.1	17	0.016	0.002	0.009	0.019	<5
14-Dec-11	Yes	7.4	1840	<5	0.021	0.01	0.01	0.026	<5

High total suspended solids recorded on 1 December 2010 and 21 March 2011.  
The cause is associated with heavy rainfall - Greater than 60mm in the preceding 5 days  
(Not considered a non-compliance according to EPL3241)

\*Result has been removed from data due to laboratory analysis issues at the time.

## ENVIRONMENTAL MANAGEMENT

# Key Reports

A range of reports containing environmental monitoring and management data results relating to Dendrobium's operations are available on the BHP Billiton website ([www.bhpbilliton.com/regulatoryinformation](http://www.bhpbilliton.com/regulatoryinformation)). Information available includes:

### Subsidence

The six monthly Subsidence Landscape Monitoring and Management Program report applicable to Dendrobium Area 2 (post-mining period) aims to record any subsidence impacts such as cracking, erosion and/or sedimentation which have occurred as a result of subsidence.

The results from the other subsidence monitoring programs are included in the relevant End of Panel Reports and Annual Environmental Management Reports (see below).

### End of Panel Reports

End of Panel Reports, prepared for each completed longwall block, provide a detailed summary of the management of any environmental impacts associated with the extracted block.

The End of Panel Report prepared for Longwall 6 is currently available on the website.

### Annual Environmental Management Reports (AEMRs)

Annual Environmental Management Reports provide a detailed summary of the environmental management strategies and associated results for all aspects of Dendrobium's operations.

The AEMR prepared for the FY11 Reporting Period is currently available on the website. This Report was submitted in September 2011.

## DENDROBIUM REGULATORY DOCUMENTS

A number of key regulatory documents that govern Dendrobium's operations are available on the BHP Billiton website ([www.bhpbilliton.com/regulatoryinformation](http://www.bhpbilliton.com/regulatoryinformation)).

These documents include:

### Dendrobium Development Consent

The Dendrobium Development Consent was approved on 20 November 2001 by the Minister of the then Department of Urban Affairs and Planning. A modified Development Consent was approved by the Minister for Planning on 8 December 2008.

The Development Consent is regulated through the Department of Planning.

The Dendrobium Development Consent and Development Consent Modification are both available on the BHP Billiton website at the link above.

### Dendrobium Environmental Protection Licence

Dendrobium's operations are regulated under an Environmental Protection Licence – EPL 3241.

The licence is issued by the Office of Environment and Heritage (OEH). Dendrobium is required to submit an Annual Return to OEH which outlines compliance levels for each of the specified licensed monitoring sites.

## COMMUNITY ENGAGEMENT

# Dendrobium Community Consultative Committee

The Dendrobium Community Consultative Committee (DCCC) was established in January 2002 in accordance with the Dendrobium Consent.

The Committee provides a mechanism to bring the community, environmental group, local councils and Illawarra Coal together in a forum to:

- ▶ Establish good working relationships between Illawarra Coal, the community, and other stakeholders in relation to Dendrobium Mine;
- ▶ Ensure the ongoing communication of information and discussion on mining operations and the environmental performance of the mine;
- ▶ Discuss community concerns and review the resolution of community complaints;
- ▶ Discuss communication of relevant information on the mine and its environmental performance to the wider community, including the results of environmental monitoring, Environmental Management Reports and the results of audits;
- ▶ Work together towards outcomes of benefit to the immediate neighbours, the local and regional community, and Illawarra Coal.

The DCCC membership comprises the following:

- ▶ an independent Chairperson;
- ▶ up to five members of the local community;
- ▶ up to two members representing local environmental groups;
- ▶ one representative of Wollongong City Council;
- ▶ representatives from Dendrobium Mine and Illawarra Coal.

Minutes from the most recent DCCC meetings are available on the BHP Billiton website ([www.bhpbilliton.com/regulatoryinformation](http://www.bhpbilliton.com/regulatoryinformation)).

## COMMUNITY ENGAGEMENT

# Dendrobium Community Enhancement Program

The Dendrobium Community Enhancement Program was established to facilitate access to funding for worthwhile and innovative local community projects that will provide benefits for the communities surrounding the Mine's operations.

Administered by a group of local community members, as well as representatives from Illawarra Coal and Wollongong City Council (the Dendrobium Community Enhancement Committee), the CEP was funded by an initial investment of A\$600,000 and receives annual funding from Dendrobium of three cents per saleable tonne of coal.

The Dendrobium Community Enhancement Committee (DCEC) is responsible for assessing applications for funding made to the Dendrobium Community Enhancement Program Fund to ensure the funds provided by the Program benefit the wider community.

The Committee is currently comprised of five community representatives and two Illawarra Coal representatives. DCEC meetings are held on a bi-monthly basis.

The DCEC has developed a DCEP Business Strategy which acts as a planning document for the DCEP Trust. This document is available on the BHP Billiton website ([www.bhpbilliton.com/regulatoryinformation](http://www.bhpbilliton.com/regulatoryinformation)).

Applications for funding under the Dendrobium CEP are assessed against a range of selection criteria, which can be viewed on the application form. The application form is also available from the BHP Billiton website ([www.bhpbilliton.com/regulatoryinformation](http://www.bhpbilliton.com/regulatoryinformation)).

Some of the projects which have been funded by the Dendrobium CEP include:

- ▶ Mount Kembla Translator support
- ▶ Self-guided walking tour brochures for the local area
- ▶ Mount Kembla Public School playground renewal
- ▶ Mount Kembla Rural Fire Service – Roller door replacement
- ▶ Mount Kembla Mine Memorial Pathway (Stage 1)
- ▶ Cobblers Hill and Western Suburbs Children's Centres playgrounds
- ▶ Digitisation of Mount Kembla Mine Disaster Royal Commission Report
- ▶ Kembla Joggers – safety equipment

Minutes from the most recent CEC meetings are available on the BHP Billiton website ([www.bhpbilliton.com/regulatoryinformation](http://www.bhpbilliton.com/regulatoryinformation)).

For further information about the DCEP, please contact:

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## DENDROBIUM COMMUNITY ENHANCEMENT PROGRAM (CONTINUED)

A benchmark program involving Dendrobium, Wollongong City Council and community representatives, the CEP was funded by an initial investment of A\$600,000 and receives annual funding of three cents per saleable tonne of coal.

The Community Enhancement Committee has recently adopted a strategic approach to the way applications for funding are received and considered.

The CEC has developed a CEP Business Strategy which acts as a planning document for the CEP Trust and CEC. This document is available on the BHP Billiton website on the Regulatory Information page ([www.bhpbilliton.com/regulatoryinformation](http://www.bhpbilliton.com/regulatoryinformation)).

The focus of the CEP is to facilitate access to funding for community projects with a vision to create a strong community and good living environment for the residents in the zone of influence of Dendrobium Mine.

Individuals and organisations in the local community are encouraged to apply for funding.

Applications for funding under the Dendrobium CEP are assessed against a range of selection criteria, which can be viewed on the application form.

The application form is also available on the BHP Billiton website on the Regulatory Information page ([www.bhpbilliton.com/regulatoryinformation](http://www.bhpbilliton.com/regulatoryinformation)).

Some of the projects which have been funded by the Dendrobium CEP include:

- ▶ Mount Kembla Translator support

- ▶ Self-guided walking tour brochures
- ▶ Mount Kembla School Learning Support – enhancing reading and technology support
- ▶ Mount Kembla School – play ground renewal
- ▶ Mount Kembla School – whiteboards
- ▶ Mount Kembla Rural Fire Service – roller door replacement
- ▶ Mount Kembla Rural Fire Service – water pump and television for training
- ▶ WIRES road signage
- ▶ Mount Kembla Scout Group equipment store
- ▶ Establishment of Heritage Centre
- ▶ Mount Kembla Mine Memorial Pathway (Stage 1)
- ▶ Cobblers Hill Children’s Centre Playground
- ▶ Kembla Joggers – safety equipment
- ▶ Project by a local artist
- ▶ Digitisation of the Mount Kembla Mine Disaster Royal Commission Report
- ▶ Kembla Heights Fishing Club – sunshades

For further information, contact:

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## COMMUNITY NEWSLETTERS

### Community Newsletters

A regular newsletter regarding Dendrobium's operations is distributed to the local community on a quarterly basis.

These newsletters enable Dendrobium Mine to communicate key operational updates and site achievements to the local community.

The most recent newsletter is available on the BHP Billiton website ([www.bhpbilliton.com/regulatoryinformation](http://www.bhpbilliton.com/regulatoryinformation)).

## DRIVERS' CODE OF CONDUCT

All employees and contractors accessing the Dendrobium Pit Top, Kemira Valley, or Ventilation Shaft sites will continue to be made aware that responsible driving is a condition of employment at Dendrobium.

A Drivers' Code of Conduct for vehicles outlines the driving behaviour required of all employees, contractors and visitors (refer to DENPL0001 Dendrobium Mine Drivers' Code of Conduct). All drivers are trained about the Code of Conduct as part of the site induction process and through regular audits undertaken at the sites. The requirements are also enforced through the annual environment and community awareness training.

Any driver reported or found to be acting in a manner contrary to the code will be subject to disciplinary action. The following penalties apply for breaches of the drivers' code of conduct:

1. For a first breach a warning letter is sent to the company along with the requirement for the company to make a donation of \$500 to a charity nominated by the contractor;
2. A second breach of the conduct (within a 12 month period) results in further donation of \$1000 payable to a charity nominated by the contractor;
3. A third breach of the conduct (within a 12 month period) results in further donation of \$3000 payable to a charity nominated by the contractor.

Delivery vehicles can only access the mine during the allowable times except for safety or production related emergencies where the Operations Manager has approved the movement.

The Drivers' Code of Conduct is available on the BHP Billiton website on the Regulatory Information page ([www.bhpbilliton.com/regulatoryinformation](http://www.bhpbilliton.com/regulatoryinformation)).

## COMMUNITY CALL LINE

# 1800 102 210

Dendrobium has a 24 hour, seven days a week free call community call line number (1800 102 210). The call line allows for general enquiries or complaints regarding environmental or community issues to be addressed. All complaints (whether received via the call line or directly to Dendrobium personnel) are documented and entered into a data and document management program. Community complaints are immediately forwarded to the relevant Illawarra Coal representative for investigation and action.