ANNUAL

ENVIRONMENTAL MANAGEMENT

REPORT

DURALIE COAL MINE

TEXT VOLUME

DURALIE COAL PTY LTD

4 SEPTEMBER 2007

CONTENTS

LIST OF TABLES

ANNUAL ENVIRONMENTAL MANAGEMENT REPORT

INTRODUCTION

This Annual Environmental Management Report (AEMR) covers the environmental protection, pollution control and rehabilitation activities at the Duralie Coal Mine up until 4 September 2007. Where applicable, comparisons of performance against the plans outlined in the Environmental Impact Statement, Statement of Environmental Effects and regulatory requirements are made. Environmental activities planned for the next 12 months are also discussed.

SCOPE

This section outlines information in relation to the development, management and operation of the Duralie Coal Project by Duralie Coal Pty Ltd (DCPL) and Leighton Mining (LM). DCPL is the mine owner and LM is the contract miner.

Background to Development

The Duralie Coal Mine is located approximately 80km north of Newcastle in New South Wales. It lies between the villages of Stroud Road and Wards River. Refer Figures 1 and 2 (Plans & Appendix (P&A) Volume).

Coal was first discovered in the Gloucester Basin in 1855 and some limited, small scale mining by hand followed.

In 1970-71 an extensive drilling programme identified coal in the Duralie area. Extensive development planning and environmental investigations took place between 1981 and 1984. Additional exploration and feasibility studies were carried out in 1993.

Development Consent for the mine was granted by the NSW Minister for Urban Affairs and Planning on 21 August 1997 and Mining Lease Number 1427 was issued by the NSW Minister for Mineral Resources on 6 April 1998.

In October 1998 a Statement of Environmental Effects (SEE) was produced to consider proposed alterations to the Duralie Mine. These proposed alterations were approved by the NSW Minister for Urban Affairs and Planning on 5 February 1999.

Construction commenced in June 2002 with mining production commencing in March 2003 and the first coal railed to the Stratford Mine for processing in the same month.

Duralie Mine consists of an open-cut, truck and excavator mine producing run of mine (ROM) coal which is processed at the Stratford Coal Mine Coal Handling and Processing Plant (CHPP).

Coal Products and Markets

The Duralie mine produces two ROM products which are processed and blended with other ROM coals at the Stratford CHPP. From the blending of ROM coals a 10.5% ash "Gloucester Coking Coal" is produced. Approximately 85% coal of the "Gloucester Coking Coal" product is sourced from the Weismantle seam mined at Duralie. The remainder of the product coal generated from Duralie Mine is sold as thermal coal.

Gloucester coking coal is predominantly sold to the Japanese market whilst thermal coal is currently supplied to export energy coal markets.

Typical coal product qualities are shown in Table 1 below.

Table 1 - Typical Coal Qualities of Stratford Coal Products

Parameter	Gloucester Coking Coal	Mid Ash High S Thermal Coal	High Ash Thermal Coal
Total Moisture	8.0%	6.0%	6.0%
Inherent Moisture (ad)	1.3%	1.2%	1.2%
Ash (ar)	10.5%	20%	24%
Volatile Matter	32.2%	29.0%	23.0%
Total Sulphur	1.3%	2.5%	1.0%
Fixed Carbon (ar)	48.3%	45%	47%
CSN	8	Not applicable	Not applicable
Fluidity	>10,00ddpm	Not applicable	Not applicable
Gross Calorific Value	Not applicable	>6,200kcals/kg	>6,200kcals/kg
HGI	Not applicable	52	62
Size	0 to 50mm	0 to 50mm	0 to 50mm

Site Personnel Responsible for Mining, Rehabilitation and Environment

Site personnel responsible for mining, rehabilitation and environmental issues at the end of the reporting period were:

Gloucester Coal Manager Mining: Mr Todd Hutchings

Mine Manager: Mr Mark Sheldon

Mining Superintendent: Mr Barry Short

Environmental Superintendent: Mr John Trotter

Corporate Environmental Policy

DCPL's Environmental Policy states that:

"Duralie Coal Pty Ltd aims to maximise the recovery of economic coal reserves to

supply domestic and export markets with coking and energy coals while protecting the environment for future generations.

We will maintain high standards of environmental management throughout our mining and processing operations in order to meet statutory obligations and community expectations.

Our guiding principles are:

- Environmental management is the responsibility of everyone on site.
- We encourage open communications.
- We will actively minimise disturbance and impact on the surrounding environment caused by our operations.
- We will meet current and anticipated environmental standards by utilising the best practical technologies for water quality protection and waste management.
- We will implement appropriate standards of rehabilitation to ensure minimal visual impact and the achievement of a stable final landform, along with the preservation of fauna, flora and downstream water quality.
- We will monitor and regularly assess our environmental performance and keep the local community informed through a consultative committee".

APPROVAL STATUS

Status of Leases, Licences, Permits and Approvals

The Duralie Mine has the following approvals:

- Mining Lease No. 1427 dated 6 April 1998 issued by the Minister for Minerals Resources. The lease was issued for a period of 21 years.
- Development Consent issued by the Minister for Urban Affairs and Planning dated 5 February 1999. The consent is limited to a period of 21 years from the date of a grant of a Mining Lease in respect of the Development.
- Department of Land & Water Conservation (DLWC) permit issued under the Rivers and Foreshores Improvement Act 1948 dated 4 June 2002 for the construction of a culvert crossing from protected land in or near the protected water known as: tributary of Karuah River (Permit Number 701).
- Department of Land & Water Conservation (DLWC) permit issued under the Rivers and Foreshores Improvement Act 1948 dated 4 June 2002 for the construction of the rail siding

and culvert crossing across Coal Shaft Creek (Permit Number 704).

- Environment Protection Licence (EPL) No. 11701 issued by the Environment Protection Authority on 4 September 2002.
- Interim Mining Operations Plan (IMOP) (for period up until 31 December 2002 - Construction) approved by the Department of Mineral Resources (DMR) on 13 September 2002.
- DLWC Bore Licence for the Duralie Open Cut (20BL168404) dated 23 September 2002.
- DLWC Bore Licence for monitoring bores (20BL168539) dated 31 October 2002.
- DIPNR licence - 20SL060324 – relating to diversion of Coal Shaft Creek.
- Mining Operations Plan (MOP) approved by the DMR on 28 February 2003.
- Modification to Development Consent 24 September 2003 (relating to Coal Shaft Creek).
- Site Water Management Plan approved by the DIPNR on 25 September 2003.
- Modification to existing DIPNR licence 20SL060324, dated 2 October 2003.
- Irrigation Management Plan approved by the DIPNR on 22 December 2003.
- DIPRN Bore Licence 20BL168539 had three bores added on 2 February 2004.
- Variation to Environment Protection Licence 11701 effective 9 February 2004.
- Mining Operations Plan Amendment approved by the DMR on 18 October 2004 (relating to an irrigation area access road).
- An attachment to the Mining Operations Plan by way of DCPL correspondence to the Department of Primary Industries – Mineral Resources (DPI-Minerals) dated 29 April 2005 (relating to exploration drilling within the mining lease) – approval given via email received 2 May 2005.
- Variation to Environment Protection Licence 11701 effective 13 December 2005.
- Variation to Environment Protection Licence 11701 effective 3 March 2006.
- Approval by DPI – Minerals on 19 July 2006 for exploration drilling within an area described with the “Twin Houses Review of Environmental Factors - May 2006”.
- Development Consent issued by the Minister for Planning dated 30 July 2006. This consent replaces the Development Consent granted by the Minister for Urban Affairs and Planning on 5 February 1999. The new Consent permitted the mining of the “Duralie Extended” area.

- Altered MOP plans following the approval of the "Duralie Extended" area were submitted to DPI – Minerals (refer Plans and Appendix (P&A) volume).

- Approval by Great Lakes Council dated 24 May 2007 to erect a telecommunications tower on the Duralie Coal Mine site.

- Further alterations to the MOP plans were submitted to DPI-Minerals in correspondence dated 21 June 2007 and approved via correspondence dated 30 July 2007 (refer Plans and Appendix (P&A) volume).

Review of Performance

A brief review of environmental performance in relation to the Department of Environment, Conservation and Climate Change – Environment Protection Authority (DECC-EPA) issued Environment Protection Licence (EPL) and Development Consent Conditions is summarised below. This performance is further discussed in the sections on environmental management activities and environmental monitoring.

DECC-EPA Environment Protection Licence

- Records of environmental monitoring activities have been kept.

- A record of pollution complaints has been maintained including the date and time of the complaint, method of complaint lodgement, personal details of the complainant (name and telephone number), the nature of the complaint, action taken and any follow-up contact with the complainant.

- A copy of this AEMR has been forwarded to DECC-EPA as well as other agencies as listed in the Development Consent. These agencies are Department of Primary Industry – Minerals (DPI-Minerals), Great Lakes Council (GLC), community representatives on the Community Consultative Committee (CCC), Department of Planning (DoP), Department of Water and Energy (DWE), Department of Environment, Conservation and Climate Change - National Parks and Wildlife Service (DECC-NPWS), Department of Primary Industries - Agriculture (DPI-Ag) and the Department of Health (DoH). In addition copies of the report have been made available to Stroud and Forster Libraries and the document has been placed on the Gloucester Coal website (www.gloucestercoal.com.au).

- No reportable incidents involving blasting occurred during the reporting period (a blast over pressure above 120 dB(L) and/or ground vibration over 10mm/s).

- Dust suppression measures are in place. Dust monitoring to date (dust deposition gauges and high volume (PM_{10}) air samplers) shows that current dust suppression systems have been effective and dust levels were below EPA limits. One exceedance of the EPA limit for dust deposition (on the same day at the two monitoring locations) was attributed to

sample contamination (bushfire smoke).

- Six monthly noise compliance monitoring was undertaken in October 2006 and May 2007 and an initial quarterly survey (a requirement of the 2006 Development Consent Modification) conducted in July 2007. The surveys determined that mine operational noise at the time of the surveys complied with EPL noise level criteria at all monitored locations with the exception of one location during the night-time period of the May 2007 survey.

- On only one occasion during the reporting period did a sediment dam spill with a total suspended solids concentration greater than 56 mg/l.

Development Consent Conditions

Development Consent conditions which were met during this reporting period include those related to operation of a meteorological station, operation of dust deposition gauges and high volume (PM10) air samplers, six monthly air quality reporting, operation of a telephone complaints line, operation of a consultative committee, monitoring and six monthly reporting of surface water and groundwater bores in or near the mine site, biological monitoring, macroinvertebrate monitoring, blast monitoring, protection of an Aboriginal site ("Honey Tree"), monitoring of topsoil for Aboriginal artefacts, operation of a "blasting hotline" and employment of an environmental officer.

2006 DPI - Minerals Annual Environmental Inspection

The 2006 DPI – Minerals Annual Environmental Inspection was conducted on 17 November 2006. The inspection was undertaken by Mr Mark Nolan (Senior Environmental Officer, DPI-Minerals) and Mr John Trotter (Duralie Coal Environmental Manager).

The purpose of the inspection was to investigate compliance with the environmental requirements of relevant approval instruments, including the Mining Lease (ML), Mining Operations Plan (MOP) and the Annual Environmental Management Report (AEMR).

DPI – Minerals correspondence received by Duralie Coal following the inspection stated that "*there was general compliance with the relevant statutory approval instruments administered by DPI – Mineral Resources. In the course of the inspection steep slopes on waste emplacement possibly in excess of approved slope angle"* was noted. DPI – Minerals required that the slope angle be checked with survey and any non-conformances corrected. A survey of the slope commented upon by DPI – Minerals was surveyed and found to have a portion steeper than the approved slope angle (namely 14^0). The steeper section of the slope, at the end of the 2006/2007 reporting period, was still to be re-profiled by bulk dozer push.

Amendments to Approvals/Licences over the Reporting Period

Refer *Status of Leases, Licences, Permits and Approvals*.

Dams Safety Committee

Both the Mine Water Dam and the Temporary Interception Dam are prescribed dams under the Dams Safety Act 1978.

Since August 2004 the Dams Safety Committee (DSC) has been provided with a monthly figure showing pit workings in relation to the two dams. Additional information requested by the DSC has been, and will continue to be, supplied to the DSC in the form of a monthly report commencing September 2007.

A Surveillance Report prepared in November 2004 was also supplied to the DSC.

A Dam Safety Emergency Plan (DSEP) for the Mine Water Dam was prepared and a copy supplied to the DSC in May 2006. A draft DSEP for the Temporary Interception Dam was provided to the DSC in June 2006.

The Temporary Interception Dam was taken out of service by advancing mining operations in July 2006.

A DSEP for the Temporary Diversion Dam was being prepared at the end of the reporting period following a request from the DSC. The Temporary Diversion Dam was constructed to capture clean water flows north of the active mining area prior to that area being disturbed by future mining activity.

A Mine Water Dam wall deformation survey and an intermediate dam wall inspection, also as requested by the DSC, was anticipated to be undertaken in September 2007.

Routine visual inspections of the Mine Water Dam are undertaken three (3) times per week. Routine (currently monthly) monitoring of piezometers terminating beneath the dam's clay core and within the clay core is also undertaken and water levels interpreted. Monuments located along the dam's crest are surveyed for any indications of movement with a survey being undertaken during the reporting period.

Blasting design takes into account potential impacts upon rigid infrastructure at site, including dams. Where blasting is considered to represent a structural threat to a significant dam, monitoring is conducted. Blasting results are compared with vibration limits nominated by the dam's design engineer.

COMMUNITY LIAISON

Employment Status and Demography

As at 4 September 2007, the employment status at the mine site was as follows:

Duralie Coal Pty Ltd	Staff	5
Leightons Mining Pty Ltd	Staff	13
	Wages	69
Trevor Harris Contracting Pty Ltd		2
TOTAL		**89**

In addition to direct permanent employment at the mine, on the basis of a conservative employment multiplier of one mine site job generating one job within the general community, up to 89 (full time equivalent) jobs are expected to have been provided in supporting services. On the last review of employee's living location, approximately 60% of mine employees resided within the greater local area (defined as being bounded by Stroud, Gloucester and Dungog).

Social/Economic Contributions and Achievements

Under the 30 July 2006 Development Consent Modification, Duralie Coal is required to pay Great Lakes Council (GLC) the following:

- A community infrastructure contribution of $78290.26 each year commencing on 30 April 2007 until the cessation of coal mining on the site. The contribution is to be indexed according to the CPI at the time of each payment.

- A contribution of $32620.94 each year for the maintenance of the Bucketts Way commencing on 30 April 2007 until the cessation of coal mining on site. The contribution is to be indexed according to the CPI at the time of each payment.

- A contribution of $10000 each year towards a structural inspection of road bridges located along the Bucketts Way (between its intersection with Clarence Town Road and the mine access road) commencing on 30 April 2007 until the cessation of coal mining on the site. The contribution is to be indexed according to the CPI at the time of each payment."

Under the 1998 Development Consent, Duralie Coal is required to pay $2,000 per annum to the Community Environmental Monitoring and Consultative Committee (CEMCC) for the duration of coal extraction. This contribution is indexed according to the Consumer Price Index (CPI) at the time of payment. The CEMCC elected to add the unspent portion of the annual committee payment to the annual community infrastructure contribution. During the reporting period the third allocation of Duralie Coal's community contributions was in the process of being allocated to deserving local projects.

Significant economic benefits have flowed or are flowing into the local region from expenditure incurred at the Duralie Mine, both during the construction and initial operation phases. Duralie expenditure has also served to "soften" the impact of the wind down of coal production at the nearby Stratford Operation in terms of local and regional employment. Wherever possible and practical, DCPL prefers to utilise the services of local providers.

Liaison and Complaint Resolution

Liaison with the local community is channelled through the Community Environmental Monitoring and Consultative Committee (CEMCC) which was formed in accordance with Development Consent Condition 24 and whose title was altered to the Community Consultative Committee (CCC) under the 2006 Development Consent Modification. The CCC met on four occasions during the reporting period – November 2006, February 2007, April 2007 and August 2007.

In accordance with Development Consent Condition 26, DCPL was required to establish and maintain a complaints handling and response procedure. Under the system, complaints received during normal office hours are directed to the environmental officer. Outside normal office hours the answering service advises a mine employee – with the environmental officer being called first - of the complaint by telephone.

A dedicated complaints telephone number is in place 24 hours per day. This number is 016 301 970. The number is advertised within the Sensis *White Pages Directory*, a local telephone directory (*Pink Pages*) and in the local newspapers *(Gloucester Advocate and Dungog Chronicle)* on a six monthly basis.

Duralie staff, when notified of a complaint, determine an appropriate response on the basis of the nature of the complaint. This may involve a site visit/inspection, liaison with personnel on site by telephone or other appropriate action. All complaints are responded to within 24 hours of receipt.

All complaints received and responses taken in relation to each complaint are recorded in a Complaints Register. The Complaints Register is tabled at each Community Consultative Committee meeting for the period covered since the last Committee meeting. Twenty (20) complaints were received by Duralie Coal during the reporting period.

SUMMARY OF OPERATIONS

RESOURCE UTILISATION

Current Exploration

Duralie Coal conducted exploration activities in the reporting period within Mining Lease 1427 and the surrounding Authorisation area. The exploration primarily consisted of open hole and core drilling targeting the Wisemantel and Clareval Seams.

Twelve holes were drilled and geophysically logged with depths of 40m to 150m. Core and cuttings samples of coal and surrounding rock and were collected and analysed. Data was collected on coal chemistry, washability and geochemistry of surrounding rocks.

Geological and engineering works included geological modelling of the Weismantle Seam, further evaluation of the potential Weismantle seam underground resource and resource evaluation of the Clareval seam.

Reserve/Resource Status

On the basis of the current mine plan, coal reserves for the Duralie Mine at the end of the reporting period have been estimated at 6.9 million tonnes.

Estimated Mine Life

Completion of mining at the Duralie Mine is estimated for 2011**.**

Recovery / Dilution

Mining losses and dilutions are expected to be minimal due to relatively simple geological structure, the thickness of the seam (10-12m normal thickness) and the bulk nature of the mining operation. Coal losses of less than 3% and dilutions of less than 5% have been experienced during the first 18 months of mining. At times some selective mining may take place depending on parting thickness.

OPEN CUT MINING

Duralie is an open cut operation with a low overall stripping ratio (volume of overburden per tonne of coal). All mining operations are by truck and hydraulic excavator or shovel.

The Duralie Mine is located approximately 20km south of the Stratford Mine facilities. The workings extract coal from the Weismantle seam at the base of the Gloucester Coal Measures. The deposit forms a synclinal structure with the open cut area located at the southernmost crop line within the main axis of the Gloucester Basin. The open cut area forms a reversed "J" shape with mining commencing in the north east part of the pit progressing southward toward the "nose" of the axis then to the north west in a narrow trench.

Two types of waste have been identified within the deposit. They are categorised as potentially acid forming (PAF) or non-acid forming (NAF). Identification is undertaken by the site geologist. In the early stages of the mining operation PAF waste was placed within compacted clay cells within the out of pit waste dump. The purpose of the clay cells is to limit the potential for oxygen and water to reach the PAF material such that an acidic leachate is not produced (it should be noted that oxidation of pyrite to sulphate is required in order to produce acid). Once sufficient in pit void was available, PAF wastes were deposited below a reduced level (RL) of 40 metres. This level was deemed to be of a sufficient depth to ensure a recovering water table would submerge all the deposited PAF material and hence largely prevent oxygen reaching that material. Agricultural lime is spread across placed PAF materials to reduce the risk of acid formation prior to clay encapsulation or submersion.

The deposition of the Weismantle seam has been influenced by the proximity of marine environments resulting in a typically very high pyritic sulphur content over the first half a metre of the seam. Additionally, moderately high inherent sulphur exists throughout the remainder of the seam. At times the upper section of the seam will be treated as waste, depending on product requirements, and placed with PAF material.

Mining commenced in March 2003 using one hydraulic excavator (and another on standby) with three Cat 789 rear dump trucks and ancillary gear. Dips within the deposit vary from a shallow 5 degrees to an almost vertical profile. Consequently, a method of horizontal 3m to 4m benches is used as the primary extraction method. An average of 5m of free dig material is generally experienced at Duralie after which all waste material generally requires blasting. The truck fleet currently comprises seven Cat 789 and one Cat 785 trucks.

ROM Production History and Forecast

Actual ROM production for the reporting period is listed in Table 2 below by month.

Table 2 - Monthly ROM Coal Production

MONTH	ROM PRODUCTION* (tonnes)
September 2006	147120
October 2006	158405
November 2006	148500
December 2006	130327
January 2007	140573
February 2007	129958
March 2007	147839
April 2007	137426
May 2007	188833
June 2007	146394
July 2007	158283
August 2007	112046

* train weight received at Stratford Mine site

Total ROM production (September 2006 - August 2007) was 1.746 million tonnes.

Total waste mined (September 2006 - August 2007) was 6.046 million bench cubic metres (bcm).

ROM production forecast for next reporting period is for similar volumes.

Mining Equipment and Method

The mining equipment currently in use at Duralie is listed in Table 3 provided below.

Table 3 - Current Mining Equipment

Item	Description	Number
Hydraulic Excavator - Backhoe	200 tonne (Liebherr 994 or equivalent)	2
Hydraulic Excavator - Backhoe	160 tonne (Komatsu PC 1600)	1
Rear Dump Truck	190 tonne (Cat 789)	7
Rear Dump Truck	150 tonne (Cat 785)	1
Track Dozer	D10	3
Grader	Cat 16H	1
Excavator	Hyundai 30 tonne	2
Front End Loader	Cat 980	1
Drill	Reedrill SK305,	2

The mining sequence is summarised below:

- Fauna/flora assessment (as required) is undertaken.
- A sedimentation control plan is prepared for the area to be disturbed (or an existing plan utilised).
- Sedimentation controls are implemented (as required).
- Tree clearing is limited to the minimum required for ongoing operations and undertaken ahead of the advancing face or dump. The distance is generally limited to 100m.
- Topsoil is removed in accordance with a topsoil stripping plan.
- Overburden removal is undertaken by a hydraulic excavator in backhoe configuration. Generally, the first one to five metres of clay overburden is ripped and/or free-dug. Deeper overburden requires blasting prior to excavation.
- Overburden waste material is deposited in either an out-of-pit waste dump or within/above a void section of the mining excavation.

Spontaneous Combustion Incidence

There were no incidents of spontaneous combustion during the reporting period.

COAL HANDLING AND BENEFICIATION

ROM Coal Processing On Site

ROM coal is processed through a rotary breaker to produce a coal fraction less than 140 mm. The essential elements of the coal processing plant on site and their design capacities are as follows:

ROM conveyor handling rate	1400 tph
Train load out rate	2400 tph

Saleable Coal Production

Product coal utilising Duralie ROM coal is produced at the Stratford Mine site. Blending of Duralie ROM coal with other ROM coals and rewashed reject material occurred during processing to produce a saleable product coal. Saleable coal production for the period September 2006 to August 2007 was 1.943 million tonnes comprising 0.737 million tonnes of coking coal and 1.206 million tonnes of thermal coal.

Actual coal production to date by month is shown in Table 4 provided on the next page.

Table 4 - Product Coal Produced by Month

MONTH	MONTHLY PRODUCT COAL (tonnes)		
	Coking Coal	**Thermal Coal**	**Total Product Coal**
September 2006	55951	112926	168877
October 2006	78125	124094	202219
November 2006	70610	106622	177232
December 2006	59040	109738	168778
January 2007	53671	105999	159670
February 2007	45238	98204	143442
March 2007	43847	109376	153223
April 2007	39407	104450	143857
May 2007	70388	129475	200186
June 2007	57074	98364	155438
July 2007	106919	51364	158283
August 2007	56825	55221	112046

Coal Stockpile Capacity (ROM)

Duralie ROM coal stockpile capacity	15,000 tonnes
Stratford ROM coal stockpile capacity	100,000 tonnes

Product Transport

All ROM coal is transported from site to Stratford Coal Mine by rail. Railing to the Stratford site in restricted to between 7am and 10pm.

1.746 million tonnes of ROM coal was transported from the Duralie Mine in the reporting period.

908 train movements (Duralie-Stratford-Duralie circuit) occurred during the reporting period. There was a maximum daily movement of 5 trains.

MINE DEVELOPMENT

Mining of coal commenced in March 2003 after a construction period of approximately eight months. Coal mining initially involved extraction of coal from the south-eastern corner of Box Cut 1. Box Cut 1 initially lay between Coal Shaft Creek (to the west) and the Main Northern Railway Line (to the east). During the reporting period, mining of coal was ongoing within the "Strip 4", "Strip 5" and "Duralie Extended" areas. Topsoil from the next intended mining area ("Strip 6") was removed to storage.

During the reporting period waste rock produced was used to progress the out of pit waste dump as well as being placed within/above the mined out sections of pit.

Surface facilities at the mine and current mine development as at 4 September 2007 are indicated within Figures 7-10 provided in the Plans and Appendix (P&A) volume.

ENVIRONMENTAL MANAGEMENT

MANAGEMENT AND MONITORING PLANS, PROGRAMS AND PROTOCOLS

The following documents were prepared and approved by the DoP during the current reporting period:

- Air Quality Monitoring Program
- Blast Monitoring Program
- Environmental Management Strategy
- Noise Monitoring Program

METEOROLOGICAL MONITORING

A meteorological station (i.e. weather station) is operated at the mine site as required by the Development Consent. The location of the station is shown on Figure 3 (P&A).

Rainfall

Table 5 provided on the next page summarises the rainfall record obtained from the site Weather Station rain gauge.

Table 5 - Duralie Mine - Monthly Rainfall Records

MONTH	YEAR				STROUD DISTRICT AVERAGE[3] 1889-2005
	2007 (To Date)		2006		
	Monthly Total (mm)	No. of Rain Days/Month[2]	Monthly Total (mm)	No. of Rain Days/Month[2]	
January	33.0	5	77.2	15	116.6
February	100.8	10	118.0	13	124.8
March	122.4	13	42.6	11	148.2
April	79.2	11	70.8	6	99.6
May	44.2	5	34.6	7	92.3
June	224.2	17	32.6	10	99.5
July	31.4	5	77.8	11	75.1
August	111.0	9	67.2	9	65.2
September			126.2	8	62.4
October			16.8	8	79.0
November			165.2	13	81.5
December			82.4	13	102.3
TOTAL FOR YEAR	**746.2**	**75**	**899.2**	**124**	**1146.5**

Notes:
1. No. of Rain Days/Month - the number of days in the month on which rain fell.
2. When tipping bucket rain gauge data used, a "rain day" by definition requires a minimum recording of >0.25mm comprising dew, heavy fog or light rain (or a combination thereof).
3. Average based on Stroud Post Office records until mine site weather station commissioned in 2002.

The 2006 rainfall total for the period monitored (September to December) was 390.6 mm.

Rainfall for 2007 to date (746.2mm) was slightly lower than the January – August average of 822mm but an improvement on the drought affected rainfall received the previous year.
The three driest months for the reporting period were (in order): October 2006, July 2007 and January 2007.
The wettest months for the reporting period were (in order): June 2007, November 2006 and September 2006.

Evaporation

Table 6 on the following page shows minimum, average and maximum evaporation rates for the reporting period. The graphical representation of the daily minimum, average and maximum evaporation rates recorded for each month during this period is provided in the Plans and Appendix volume.

Table 6 - Monthly Minimum, Average and Maximum Evaporation Rates

MONTH	MINIMUM EVAPORATION RATE (mm/day)	AVERAGE EVAPORATION RATE (mm/day)	MAXIMUM EVAPORATION RATE (mm/day)
September 2006	0.7	4.3	11.5
October 2006	1.7	4.7	8.1
November 2006	0.6	5.3	9.5
December 2006	0.9	5.5	8.6
January 2007	1.1	6.8	11.9
February 2007	1.3	5.3	8.5
March 2007	1.2	4.1	8.4
April 2007	0.5	2.8	4.9
May 2007	0.5	2.4	4.3
June 2007	0.3	2.1	5.7
July 2007	1.0	2.9	7.2
August 2007	0.3	3.0	7.1

Wind Speed and Direction

Table 7 below indicates the monthly minimum, average and maximum wind speeds for the period September 2006 to August 2007, inclusive. The graphical representation of the daily minimum, average and maximum wind speeds recorded for each month during this period is provided in the Plans and Appendix volume.

Table 7 - Monthly Minimum, Average and Maximum Wind Speeds

MONTH	MINIMUM WIND SPEED RECORDED (k/hr)	AVERAGE WIND SPEED (k/hr)	MAXIMUM WIND SPEED RECORDED (k/hr)
September 2006	0.0	9.3	58.5
October 2006	0.0	9.2	79.7
November 2006	0.0	10.0	97.6
December 2006	0.0	9.0	48.9
January 2007	0.0	10.0	60.1
February 2007	0.0	9.0	35.7
March 2007	0.0	8.1	47.6
April 2007	0.0	5.7	40.4
May 2007	0.0	5.8	50.8
June 2007	0.0	9.0	59.4
July 2007	0.0	9.5	58.8
August 2007	0.0	5.6	51.1

Table 8 provided below summarises the dominant wind directions for each month from September 2006 to August 2007, inclusive. Monthly wind roses are provided in the Plans and Appendix volume.

Table 8 - Dominant Wind Directions by Month

MONTH	DOMINANT WIND DIRECTIONS
September 2006	NNW, NW
October 2006	N
November 2006	N
December 2006	N
January 2007	N
February 2007	N
March 2007	N
April 2007	N, NNW
May 2007	N
June 2007	W, WSW, SW, N
July 2007	WSW, N
August 2007	N

Temperature

Table 9 provided on the following page summarises monthly air temperatures.

Table 9 - Monthly Minimum, Average and Maximum Air Temperatures

MONTH	MINIMUM AIR TEMP RECORDED (deg C)	AVERAGE AIR TEMP (deg C)	MAXIMUM AIR TEMP RECORDED (deg C)
September 2006	6.2	16.0	33.5
October 2006	5.6	17.7	34.6
November 2006	6.8	19.9	36.3
December 2006	7.5	20.4	36.2
January 2007	11.5	23.4	40.2
February 2007	15.5	22.8	33.8
March 2007	9.8	21.1	35.8
April 2007	7.9	17.2	29.0
May 2007	1.1	15.2	28.9
June 2007	0.3	11.2	20.9
July 2007	-1.8	10.6	22.1
August 2007	0.4	13.6	25.9

The graphical representation of the daily minimum, average and maximum atmospheric temperatures recorded for each month is provided in the Plans and Appendix volume.

WATER MANAGEMENT

The main principles of the water management system on-site are to:

- Minimise the generation of dirty water;
- Minimise storage requirements by maximising re-use of dirty water;
- Remove potential impacts on downstream water resources by provision of secure containment on site and disposal by irrigation re-use;
- Implement a fail-safe system, whereby under extreme events in excess of design capacity, dirty waters would spill to the mine pit and not to the clean water catchments; and
- Not allow sediment laden water having an elevated suspended solids concentration to be discharged off site.

Water Supply and Demand

The main water supply storage on-site for use in dust suppression is the Mine Water Dam (MWD) (monitoring point SW3) located to the northwest of the Industrial Area. The MWD is the principal permanent mine water storage on-site. Water from this dam comprises pit

produced water (runoff to/rainfall/seepage to), water from specific sediment dams and surface water runoff from the Industrial area.

The principal water losses in the water system are:

- Water applied to land by means of irrigation.
- Water used for dust suppression.
- Evaporation from the Mine Water Dam.
- Water retained in ROM coal and railed to Stratford.

Mine water stored volume increased by 133 ML during the reporting period.

The Mine Water Dam's current storage capacity is 1202 ML

At the completion of the reporting period the Mine Water Dam contained 690 ML.

It is estimated that 217 ML of water was pumped from the mine workings during the twelve month period ending 30 June 2007. This water has its origins in groundwater inflows, seepage through out of pit/in pit waste material, runoff and incident rainfall. This quantity of water should be compared with the DIPNR (now DWE) Bore Licence 20BL168404 which allows for up to 300 ML of groundwater to be extracted from "works" in any 12 month period. Hence groundwater extracted from mine workings did not exceed the 300 ML annual limit.

Surface Water Management

Surface water management is divided into the management of clean and dirty water as outlined below. Dirty water comprises both mine water and sediment laden/turbid water. Section 3.2.4 covers management of runoff from the overburden dump and sediment and erosion control.

Clean Water Management

The main objective of clean water management is the segregation of clean from dirty water by the construction of diversion drains around disturbed areas, thereby minimising the quantity of dirty water generated.

Surface water controls aim to prevent clean runoff water from entering the open mining pit and overburden dumping areas where practical. The main structures are:

- An extensive diversion drain located around the MWD – to the west of all mining activities ("Western Diversion Drain"). This drain intercepts runoff from the catchment above the MWD and delivers that water to Coal Shaft Creek. The drain was completed in early 2003;

- Diversion of Coal Shaft Creek. The diversion channel (built in stages) is required until the creek can be re-established at the conclusion of mining;

- Flood control embankments to prevent inundation of mining areas;
- A culvert under the Main Coal Haul Road which allows Coal Shaft Creek to flow through the site; and
- Various runoff control drains/bunds about disturbed areas designed to divert clean water runoff around those areas.

The main elements of the clean water diversion system are shown in Figures 7-10 (P&A Volume).

Dirty Water Management

Dirty water management refers to the control, collection and re-use of water which may have become contaminated by mining operations and associated activities or which by its nature is considered to be undesirable for release to the environment. Dirty water comprises mine water and sediment laden/turbid water. Mine water is water that has come into contact with mining activities. Sediment laden/turbid water has come into contact with disturbed areas but predominantly not core mining areas.

Mine waters are typically characterised by higher salinity and sometimes lower pH. Sediment laden waters are characterised by elevated suspended solids and elevated turbidity.

The main objectives of the dirty water control facilities are:

- On site storage to prevent escape to Coal Shaft Creek and Mammy Johnsons River; and
- Management of the stored quantity of dirty water by irrigation.

The principal sources of dirty water are:

(a) Mine Water

- Rainfall within mining pits mixing with particulate matter and relatively saline groundwater;
- Groundwater seeping into mining pits;
- Rainfall induced runoff and seepage from active sections of the overburden dump; and
- Rainfall induced runoff from the Industrial Area.

(b) Sediment Laden Water

- Rainfall induced runoff from haul roads;

- Rainfall induced runoff from areas stripped of topsoil (typically exposing clays);
- Rainfall induced runoff from areas yet to adequately vegetate within sediment dam catchments; and
- Direct rainfall falling on sediment laden water storages.

Dirty water uses and losses are:

- Evaporation and seepage losses from water storages;
- Haul road dust suppression;
- Railed coal dust suppression;
- Water retained in product coal railed to the Stratford Mine; and
- Stored water applied to land via irrigation (evapotranspiration).

The dirty water storages on site are:

- Mine Water Dam (MWD)
- Sediment Dam VC1 (waste dump)
- Sediment Dams SD1 – SD5 (access road)
- Sediment Dams RS1 and RS6 (rail siding dams)

The locations of mine and sediment laden water storage areas are shown in Figure 7 (P&A Volume).

Surface Water Monitoring

DCPL monitors surface water quality on and surrounding the mine site by sampling from a series of selected locations. These locations comprise both streams and water storage structures. A meteorological monitoring station (i.e. weather station) provides site rainfall data. The locations of these monitoring sites are shown on Figures 2 and 8 (P&A volume).

Surface water monitoring is conducted in accordance with the Duralie Coal Mine "Surface and Groundwater Monitoring Plan (Section 2)" dated May 2002 (and updated March 2004) and the Environment Protection Authority (EPA) Environment Protection Licence (EPL) 11701.

Surface water is sampled and analysed on both a monthly and/or event basis. An "event" occurs when at least 20 millimetres of rainfall is received at the mine site within a 24 hour period. Note also that a second monitored "event" must be greater than 21 days beyond the first "event" to by definition constitute an "event". It should also be noted that monitoring is

also undertaken when a sediment dam is spilling.

Collected waters are analysed for a suite of physical and chemical parameters. Results are compared with the Australian and New Zealand Environment and Conservation Council (ANZECC) Guidelines for Fresh and Marine Water Quality (2000) (Aquatic Ecosystems Table 3.4.1 referencing slightly to moderately disturbed systems) and EPA requirements. Use of the Aquatic Ecosystems criteria is considered of most relevance given that irrigation utilising water from Mammy Johnson River does not occur (or is infrequent) above Stroud Road, water from the river would not normally be used for human consumption, aquaculture is not a high profile activity within the River and livestock are considered to only occasionally drink from the river.

Groundwater Management

Groundwater is monitored in order to determine whether the mine is having an observable impact on groundwater resources in the area.

DCPL monitors groundwater quality on and surrounding the mine site by sampling from a series of selected locations (bores). The location of these bores is shown in Figure 8 (P&A volume).

Groundwater monitoring is conducted in accordance with the Duralie Coal Mine "Surface and Groundwater Monitoring Plan (Section 3)" dated May 2002 (revised March 2004) and the Environment Protection Authority Environment Protection Licence 11701.

Collected waters are analysed for a suite of physical and chemical parameters. Results are evaluated for observable trending (refer " Review of Water Monitoring Results" below).

Sediment and Erosion Control

The control of sediment generation and erosion is primarily controlled by:

- Timely progressive rehabilitation and vegetation establishment on disturbed areas (e.g. completed sections of the overburden dump) to minimise the area exposed to erosion;
- The direction of runoff from disturbed areas into sediment dams; and
- The placement of silt fences, silt rolls (gravel filled), straw bales, geotextile fabric and/or rock in order to either trap or restrict the generation of silt or to dissipate flow energy.

All elements of sediment control are regularly monitored and maintained. Sediment dams are cleaned out when the storage volume is substantially reduced by sediment deposition (i.e. when 30% of storage volume is lost to sediment build up) and inspected after major rainfall events.

Sloping areas under rehabilitation are stabilised by structural controls such as bench drains and contour banks (if required) to break up the effective slope length exposed to erosion. Final

slopes will generally not exceed 14 degrees which will aid in the control of erosion and sediment generation.

Review of Water Monitoring Results

Local Streams

Reference should be made to accompanying data tables provided in the P&A volume:

- *SW1 – Karuah River*
- *SW2 – Coal Shaft Creek*
- *SW2 Rail Culvert – Coal Shaft Creek*
- *SW2 Upstream – Coal Shaft Creek*
- *SW6 – Former RS3/4 Culvert*
- *GB1 – Mammy Johnsons River*
- *Site 9 – Karuah River*
- *Site 11 – Mammy Johnsons River*
- *Site 12 – Mammy Johnsons River*
- *Site 15 - Mammy Johnsons River*
- *Site 19 – Karuah River*

Comments on analysed parameters during the reporting period are as follows:

- pH at all sites was generally within the ANZECC guidelines. There were a minority of samples which were slightly more alkaline (Sites SW1, SW2, SW2 RC, SW2 Upstream, SW6, GB1, 9, 11, 15 & 19).
- Electrical conductivity (EC) across all sites ranged about the ANZECC nominated band. EC above the ANZECC range is attributed to lower stream flows and groundwater influence under drier weather (especially obvious during periods of drought). EC was generally higher within Mammy Johnsons River than in the Karuah River.
- Turbidity readings were generally low within both Mammy Johnsons and the Karuah Rivers, except when flows are high after rainfall events. Higher readings were typically recorded within samples collected from Coal Shaft Creek.
- Total suspended particulate (TSS) results displayed a similar profile to turbidity results (no stated ANZECC guideline). Elevated TSS results typically were recorded during high flow events and, on occasion, possibly due to cattle activity.
- Sulphate concentrations recorded at all sites were generally low (no stated ANZECC guideline). The highest sulphate concentration recorded (330 mg/l) was for samples collected at Site SW6 on 28 September 2006 and 13 February 2007.
- Manganese concentrations recorded were generally low and within the ANZECC guideline with the exception of two samples. Of these two samples, the highest was a concentration of 4.3 mg/l recorded for a sample collected from site GB1 on 29 June 2007.
- Filtered iron concentrations at all sites were quite low (no stated ANZECC guideline).

Highest concentration recorded (3.4 mg/l) was for a sample collected at Site SW2 Upstream (Coal Shaft Creek) on 29 June 2007.

- Zinc concentrations at all sites were also generally low. However, zinc results were quite commonly in excess of the ANZECC guideline which is extremely low. Level of laboratory detection for zinc is currently above the guideline value. Highest concentration recorded (0.1 mg/l) was for a sample collected at Site SW2 (Coal Shaft Creek) on 25 March 2007.
- Aluminium concentrations at all sites were generally low. Again, the ANZECC guideline for this metal is quite low. As such, the ANZECC guideline was exceeded on a regular basis across multiple sites. The highest reading recorded was from Site SW2 Upstream (Coal Shaft Creek) on 10 July 2007 (6.4 mg/l).
- For calcium, magnesium and chloride concentrations there are no stated ANZECC guidelines. Calcium and magnesium concentrations were not high at any site (maximum 89 mg/l and 86 mg/l respectively at Site SW6 on 13 February 2007). Chloride concentrations were reasonably variable across the monitored sites (between 0 and 273 mg/l). Elevation in chloride concentration is expected under low stream flows.

Generally, analytical results displayed a similar structure to the previous reporting period.

The expectation stated within the EIS for increased sediment loads into Coal Shaft Creek and Mammy Johnsons River under mine construction, decreasing as the creek diversion was established has been the case.

Biological Monitoring

As part of Duralie Coal's environmental monitoring program, Invertebrate Identification Australasia was commissioned to conduct biological monitoring of the streams near the mine. An environmental assessment of the aquatic ecosystems of Mammy Johnsons River and the Karuah River above the junction with Mammy Johnsons River was made prior to the commencement of mining operations.

Biological monitoring has been conducted during approximately March and September each year since the start of mining operations.

Monitoring conducted during this reporting period was conducted during September 2006 and March 2007. These surveys both involved sampling from six sites. The September survey identified a total of 66 genera in 48 families. The results for the April survey were 70 genera in 49 families.

Both the September 2006 and the March 2007 reports stated that "the results of the current survey indicate that the prevailing conditions are similar to those recorded the previous year and show no evidence of any adverse effects on the aquatic macroinvertebrate community or the river ecosystem, as a result of the mine's operations."

Copies of the reports are provided in the Plans & Appendicies Volume.

Mammy Johnsons River Sediments

Sediment sampling and analysis was undertaken in September 2002 and 2005.

The next round of sediment collection and analysis is scheduled for September 2008.

Mine Water

Mine water, in a practical sense, comprises water that is generated within the mine workings, waste rock emplacements (prior to an acceptable standard of rehabilitation being achieved), storage areas for such water and runoff from areas where coal is handled. Mine water is generally characterised by elevated EC, elevated sulphate concentrations and low turbidity/TSS.

The two principal mine water storage areas are the Mine Water Dam (sampling location SW3 major) and the Main Pit (sampling location SW4). Monitoring for SW3 (major) through the reporting period indicated, on average, a moderate EC (1280 uS/cm), neutral pH (7.5) and low miscellaneous metals concentration. Similar monitoring for SW4 on average indicated an EC of approximately 2400 uS/cm, neutral pH (7.1) and elevated sulphate, calcium and chloride concentrations. Sulphate has its origin in sulphides present within the pit rock and coal, calcium from liming of wastes and chloride from the former marine environment.

No localised areas of lower pH water were observed within the pit during the reporting period.

On the basis of mine water quality behaviour to date, a significant change in water quality throughout the mine life is not anticipated.

Groundwater Monitoring

Monitoring of groundwater re-commenced in October 2002 in accordance with the "Surface and Groundwater Monitoring Plan". It should be noted that five (5) deep groundwater bores had been monitored for several years prior to commencement of mine construction.

The construction and early mining groundwater bore network was expanded to ten (10) bores – made up of compliment of deep and shallow bores to obtain samples from different aquifers. During 2004 the monitoring network was expanded by a further three (3) bores for the purpose of sampling groundwater within the proposed ("Type 2") mine water irrigation area (identified as "SI" bores). It is proposed to instal an additional piezometer (designation "DB7W) to be located between northern future mine workings and Mammy Johnsons River during the next reporting period.

Reference should be made to accompanying data tables for each monitoring well provided within the P&A volume.

Comments on analysed parameters for monitoring conducted during the reporting period are

as follows:

- Depth to groundwater was comparable with recent historical data for all monitored wells. However, bores DB2W, DB4W and DB6W have lower standing water levels which indicate that the groundwater level in areas about these bores is yet to return to pre-mining levels (refer to *Groundwater Depressurisation* below);
- pH is comparable with historical data with fluctuations apparent. pH in the reporting period varied from 6.2 (DB1W in November 2006) to 8.6 (DB2W in November 2006);
- Electrical conductivity generally showed a high degree of variability across many of the wells as has historically been the case. This would appear to reflect the cycle of dry and wet conditions. Shallow wells intercept generally low conductivity aquifers;
- Sulphate, calcium, magnesium concentrations across all wells tended to fluctuate within reasonably tight ranges. Calcium concentrations within well SI3W exhibited the widest range of any of the three analytes spanning 173 mg/l;
- Aluminium concentrations are quite low (often being close to the limit of analytical detection) in all the deeper wells but comparatively higher in the shallower wells. The highest concentration recorded was 45 mg/l (DB3W in November 2006);
- Filtered iron concentrations showed no common trend with rises and falls across wells generally. Concentrations showed a wide range from a low of <0.01 mg/l (DB4W in February & August 2007) to a high of 146 mg/l (DB5W in May 2007);
- Manganese concentrations across all wells were not high with the highest being 2.8 mg/l within SI3W during May 2007; and
- Zinc concentrations were essentially low and not inconsistent with available historical data.

As a general remark, it would appear from the data comparison that groundwater quality is varying in a random manner, such that some parameters are increasing, some decreasing and some remaining static when compared with historical information. This is considered to be the most common expectation of a natural groundwater system.

On the basis of the above, no mine operational activities are believed to have influenced groundwater quality.

It should be noted that the EIS described groundwater in the vicinity of the coal measures as being characterised by the following parameters/ranges:

- pH – 6.3 to 6.6
- Electrical conductivity – 1600 to 4000 uS/cm

For this reporting period, the groundwater pH range for bores likely to be influenced by the coal measures was between 6.2 and 8.6.

Similarly, the electrical conductivity range for the same bores was 1030 to 3000 uS/cm.

Groundwater Depressurisation

Depth to water information from piezometer monitoring shows that bore water levels are generally consistent between bores and with EIS predicted drawdown levels. The four bores

to the west of the open cut pit (SI1W, SI2W, SI3W & DB6W) are all above or close to maximum predicted levels. Three bores to the east and south of the open cut pit exhibit water levels higher than the maximum predicted drawdown levels (DB1W, DB2W & DB4W). One bore south of the open cut (DB5W) has a monitored water level of RL 43m which is inconsistent with the maximum predicted drawdown level of approximately RL 60m. This bore recorded baseline (pre-mine) water levels around RL 44-45m – also well below predicted maximum levels within the EIS study, indicating that EIS predictions may be inaccurate in this area, likely due to a lack of groundwater data at the time.

Three graphs showing depth to water data by like groups of piezometers (in terms of location relative to the mining area) are provided in the Plans & Appendicies Volume. The three graphs represent piezometers located between the mining excavation and Mammy Johnsons River, a single piezometer sited hydraulically upgrade of the mining excavation and the three piezometers located within the western ("Type II") irrigation area. The data has been plotted in terms of actual depth to water measurement (top of casing to top of aquifer) minus the minimum depth to water reading recorded for that piezometer. These plots show relative movement of the aquifer over time and comparisons can be made with pre-mining conditions.

The first graph ("Pit-River Groundwater Bore RL Change") shows that the maximum drawdown (expected to be largely induced by mining activity) of any piezometer in this grouping is eight (8) metres – within bore DB2W.

The second graph ("DB6W Bore RL Change") shows a maximum drawdown of less than one (1) metre.

The third graph ("Western Irrigation Area Bore RL Change") indicates that depth to top of aquifer has not varied by more than one (1) metre for any of the piezometers since irrigation commenced. These piezometers would be expected to show depth to water fluctuations without irrigation simply as a consequence of rainfall episodes.

Reporting

Six-monthly water monitoring data for the period commencing September 2006 was placed on the GCL website in April 2007. Data for the second six month period (commencing March 2007) is provided within this report and which will also be publicly available by being placed on the GCL website.

Water monitoring data is also provided quarterly to the CCC.

Irrigation

The Duralie Coal Mine operates under a continual stored water surplus. There is only minimal requirement for process water on site – e.g. for dust suppression and fire fighting. Development consent precludes the disposal of mine water to the local creek/river system. As a consequence, mine water accumulates on site if not actively drawn down.

Irrigation, as proposed within the Duralie EIS, is used to draw down stored water. Irrigation

currently consists substantially of a network of fixed sprays within the catchment of the Mine Water Dam (Type I area), three (3) travelling irrigators operating to the west of the Mine Water Dam (Type II area) and three (3) travelling irrigators operating to the north of the current mining area (Type III area).

The application of mine water is subject to a management plan (Irrigation Management Plan).

In order to ensure irrigation of mine water does not have an unacceptable adverse impact upon the environment (particularly soils, vegetation, off site water quality etc) appropriate monitoring is undertaken. The monitoring includes (or in the past has included) evaluation of irrigation source water quality, soil moisture levels, runoff water quality from areas under irrigation, soil macroinvertebrates, plant species diversity and pasture biomass.

Routine determination of soil moisture levels to rank irrigation priorities is undertaken within Type II and Type III irrigation areas utilising "Gbug" sensor/loggers.

During the reporting period (September 2006 to August 2007) approximate irrigation volumes were:

Type II areas – 5011 hours (compare with 4854 hours last reporting period) of travelling irrigator operation corresponding to an on ground application of 319 ML.
Type III areas – 4914 hours (compare with 2715 hours last reporting period) of travelling irrigator operation corresponding to an on ground application of 313 ML.
Therefore 632 ML of mine water was irrigated utilising travelling irrigators during the reporting period (compared with 482 ML the previous reporting period).

Soil sampling from the Type II areas was undertaken in August 2005, 2006 and 2007 and tested for analytes of interest, namely bicarbonate alkalinity, chloride, sulphate, calcium, sodium and magnesium concentrations in order to determine whether there was any significant salt accumulation within irrigated topsoils. Sampling sites were chosen along the three (3) irrigation "runs" most irrigated within the Type II area during the first year of irrigation (2005). Upon choosing sampling locations it was proposed that ongoing sampling and analysis be undertaken from those same locations over time in order to determine trend behaviour.

Initial topsoil samples from all Type III runs were collected in January 2006. Samples were again collected in August 2006 and 2007 for the three runs most irrigated for the period up to August 2006.

It should be noted that there is naturally occurring variation in elemental composition between locations and even about an actual location. This situation is highlighted by the variation between August 2006 and August 2007 soil results for the non-irrigated sampling site ("Reference" site).

Comparison of analytical results for August 2006 and August 2007 indicated that some analyte concentrations had increased and some had decreased. Sulphate was the only analyte to increase across all sampled irrigation runs. Sampling and analysis in future years will be important in determining whether any continued concentration of particular analytes within irrigated soils is occurring and any associated rate of increase. Comparisons by run for the

August 2006/2007 period are:

Run 8: Increased concentrations: sulphate.
Decreased concentrations: chloride, calcium, magnesium, sodium.

Run 10: Increased concentrations: sulphate, magnesium.
Decreased concentrations: calcium, sodium.

Run 16: Increased concentrations: sulphate, chloride, calcium, magnesium, sodium.
Decreased concentrations: nil.

Run 31: Increased concentrations: sulphate, calcium, sodium.
Decreased concentrations: magnesium.

Run 32: Increased concentrations: sulphate, chloride, calcium, magnesium, sodium.
Decreased concentrations: nil.

Run 35: Increased concentrations: sulphate, calcium, magnesium, sodium.
Decreased concentrations: chloride.

Reference: Increased concentrations: sulphate.
Decreased concentrations: chloride, calcium, magnesium, sodium.

Analytical results are provided in the Plans and Appendicies Volume.

Photographic recording of vegetation with Type II and III irrigation areas was undertaken in January 2007 and June 2007.

Water quality for the Mine Water Dam ("SW3") in terms of a comprehensive metals suite was undertaken in June 2007. Analytical results are provided in the Plans and Appendicies Volume (Irrigation section).

Re-establishment of Coal Shaft Creek

A re-established creek channel corridor bulk earthworks specification was prepared in January 2007.

Inpit waste placement about the southern end of the mining excavation is occurring in such a manner as to facilitate the ultimate construction of the re-established Coal Shaft Creek through this area.

Site Water Balance

A review of site water parameter with reference to the 12 month period ending 30 June 2007 determined the following (for comparison purposes, 2006 AEMR reported values – period 2003 to 2005 - provided in parentheses):

Inflows (Megalitres)

Pump from open cut pit to Mine Water Dam (MWD)	217	(196)
Pump from sediment dams	42	(55)
Rainfall-runoff	349	(381)
MWD upstream seepage	34	(47)
Western area irrigation "first flush" collection	287	(125)
Total Inflow	929	(804)

Outflows (Megalitres)

Irrigation	586	(265)
Evaporation	164	(148)
Haul Road/Drill use (dust suppression)	71	(50)
Total Outflow	821	(463)
Site Nett Gain (Megalitres)	108	(341)

It is expected that an extensive mine water balance assessment as part of a greater Environmental Assessment will be undertaken as part of the proposed Part 3A (Environment Planning and Assessment Act) development application. It is anticipated that the Part 3A application will be lodged with the DoP in late 2008.

Complaints

During the reporting period no water related complaints were received.

EROSION AND SEDIMENT MANAGEMENT

The mine had the following dedicated erosion and sediment control structures in use during the reporting period (refer Figure 7 in P & A Volume):

Five (5) access road sediment dams – designated as SD1 to SD5
Two (2) rail siding sediment dams – designated as RS1 and RS6
One (1) waste dump sediment dam – designated as VC1

Sediment dam sizing is based on providing sufficient capacity to hold runoff from a 1 in 20 year, 1 hour duration rainfall event (for a given catchment). The quality of water collecting within sediment dam is managed (where practical) to minimise suspended sediment load. This is achieved by a combination of promoting stabilising groundcover within the dam's

catchment and introduction of a flocking agent such as gypsum (as required).

Sediment dams are inspected following receipt of sufficient rain whereby such dams have the potential to spill.

In addition to dedicated sediment dams, clean water is directed around disturbed areas (where practical) using diversion drains/bunds or in the case of Coal Shaft Creek, a creek diversion (refer discussion under *Water Management*) in order to minimise sediment laden water.

Results of monitoring are provided with the table "Sediment Dams – Monitored During Rain Periods" (provided in the P&A Volume). Spills occurred from four (4) separate dams – SD2 (four occasions), SD3 (four occasions), SD5 (four occasions) and RS1 (once). Note that for the purpose of this discussion spilling over consecutive days is considered to constitute "one occasion". Dam spills occurred during September 2006, November 2006, June 2007 and August 2007. In the 72 hours about these spill events the following quantity of rain was received – 91mm, 100mm, 144mm and 93mm respectively.

It should be noted that at all times pumping (where possible) of sediment dams in order to prevent or limit the amount of spilling water was undertaken. Prioritisation of pumping operations also took into account the likely quality of spilling water when a dam was considered vulnerable to spilling.

AIR

Dust Monitoring and Criteria

DCPL has an Air Quality Management Plan (AQMP) that establishes a dust management strategy which:

- Identifies air quality criteria;
- Outlines proactive and responsive dust management and control measures;
- Establishes dust management protocols;
- Formulates an air quality monitoring programme;
- Establishes stakeholder consultation protocols; and
- Details reporting and review requirements.

The AQMP was produced in July 2002 (and augmented by an Air Quality Monitoring Plan approved by the DoP in May 2007) and provided to the EPA, Planning NSW, Great Lakes Council and members of the CEMCC.

In order to monitor air quality (dust) surrounding the mine site, DCPL utilises a network of six (6) static dust fallout gauges, two (2) high volume PM_{10} air samplers and a meteorological monitoring station (i.e. weather station). Note that one (1) additional static dust fallout gauge was installed within the Wards River village during the reporting period following a specific request from a Ward's River resident. The locations of these monitoring sites are shown on Figure 3 (P&A volume).

Monthly dust fallout levels are measured so that dust deposition rates in g/m^2/month can be determined at or near three (3) residences along Johnsons Creek Road (east of the mine site) and within the village of Wards River. The EPA annual average limit for dust deposition is $2.5g/m^2$/month with a monthly maximum of $4g/m^2$/month.

The high volume air samplers (HVAS) (PM_{10}) are set up near company owned rural dwellings along Johnsons Creek Road ("Twin Houses" – located to the northeast of the mine and "High Noon" – located to the southeast of the mine). Sampling occurs for a 24 hour period every 6 days in accordance with AS 2724.3. The EPA goal for air quality is an annual average limit of $30ug/m^3$/day and a National Environmental Protection Measure (NEPM) 24-hour average limit of $50ug/m^3$/day.

Dust Control Procedures

Dust is controlled by methods which include:

- Minimising disturbed areas,
- Prompt reshaping, topsoiling and revegetation;
- Watering haul roads and other dust generating roads;
- Utilising water sprays on the drill;
- Water sprays on the ROM dump hopper and transfer point between the ROM and train loading bins; and
- Water sprays during train coal loading.

Review of Dust Monitoring Results

Dust Deposition Gauges

Graph 1 shows the dust deposition results for the six (6) dust deposition gauges (D1-D5, D7). Gauge D7 is located within the village of Wards River. The monthly results for deposited dust are tabulated below:

Table 10 – Dust Deposition Gauge Results

	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07
D1	0.6	1.2	1.4	1.0	2.8	0.8	0.9	0.9	0.9	0.2	0.8	0.2
D2	0.6	2.3	2.1	1.5	0.9	1.3	1.3	1.4	1.4	0.4	0.4	0.5
D3	0.3	1.1	2.0	1.5	1.2	1.1	0.9	1.3	1.3	0.5	0.8	0.5
D4	0.4	0.5	BB	0.9	0.6	0.6	1.1	0.6	0.6	3.3	2.0	4.9
D5	0.5	0.4	1.7	1.3	0.8	0.7	0.6	0.7	0.7	0.2	0.4	0.4
D7	-	-	-	-	-	-	-	-	-	0.3	0.2	0.4
EPA limit	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

*BB = broken bottle

Dust levels recorded had an average value of 1.0 g/m^2/month. Only on one occasion did a deposition gauge result exceed 4 g/m^2/month – D4 August 2007 – and this elevated value was primarily attributed to contamination from bird dung and insects. The results compare with the

EPA upper limit of 4 g/m^2/month and the annual average limit of 2.5 g/m^2/month. Dust gauge results are provided within Graph 1.

Contamination of samples commonly occurred – primarily from insects and to a lesser extent algae or bird dung.

Graph 2 shows the running/cumulative monthly averages for dust deposition gauges. This figure shows that the average dust deposition level for all monitoring sites was significantly below the 2.5 g/m^2/month annual average limit as set by EPA.

High Volume (PM_{10}) Dust Samplers

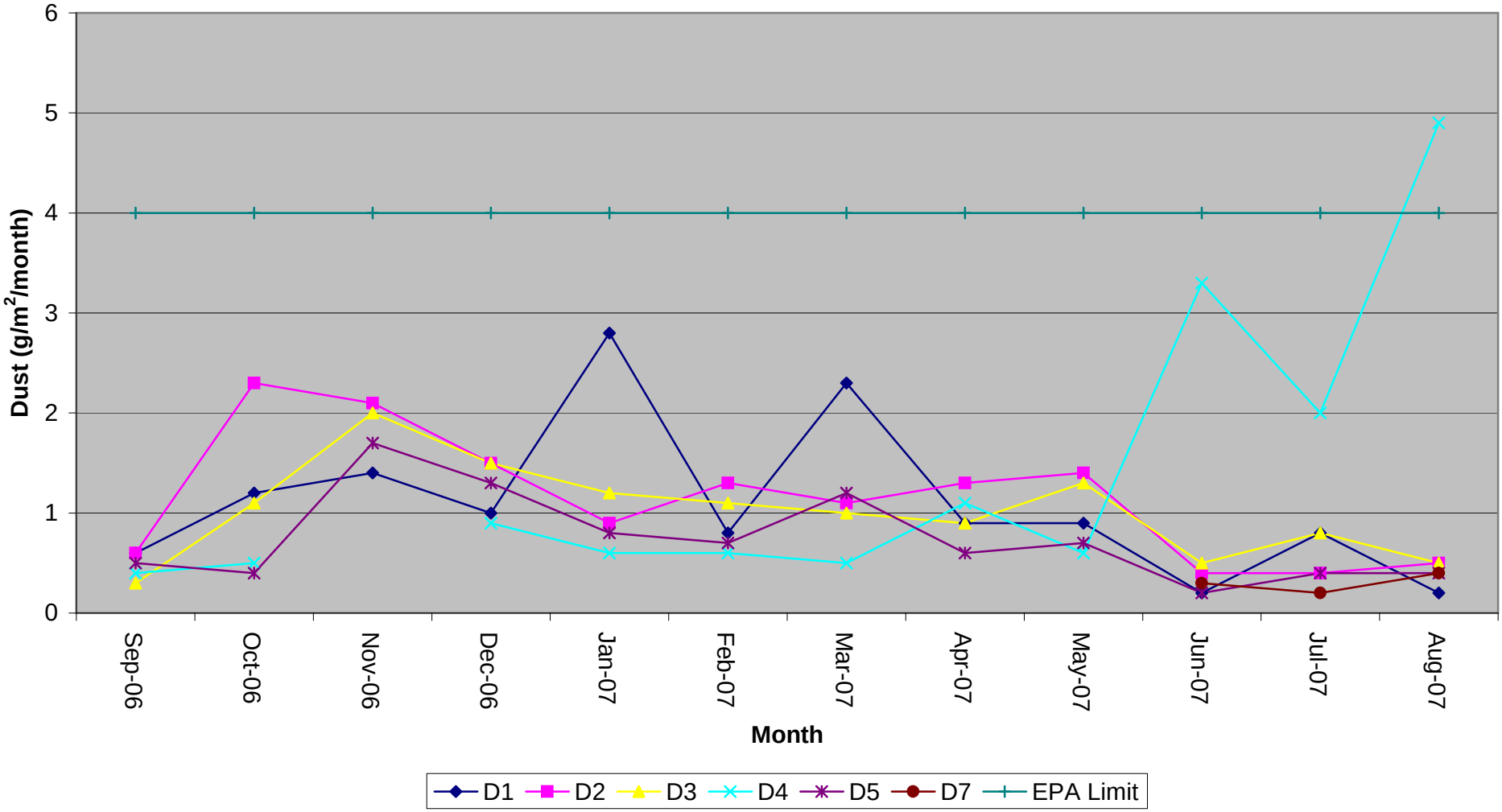
Graph 3 shows the high volume air sampler (HVAS) (with heads restricting dust capture to particle size less than 10 micrometre – ie PM_{10}) monitoring results for the two HVAS in ug/m^3/day (24 hours) for the monitoring sites at "High Noon" and "Twin Houses" during the reporting period. Analytical data indicated that both monitoring locations exceeded the National Environmental Protection Measure (NEPM) of 50 ug/m^3/day on one occasion (both sites) during the reporting period. However, these exceedances were attributed to the presence of regional smoke from bushfires. The results during the reporting period by monitoring location were: "High Noon" 1-55 ug/m^3/day and "Twin Houses" 1-52 ug/m^3/day.

HVAS results are tabulated below.

Table 11 – High Volume Air Sampler Results

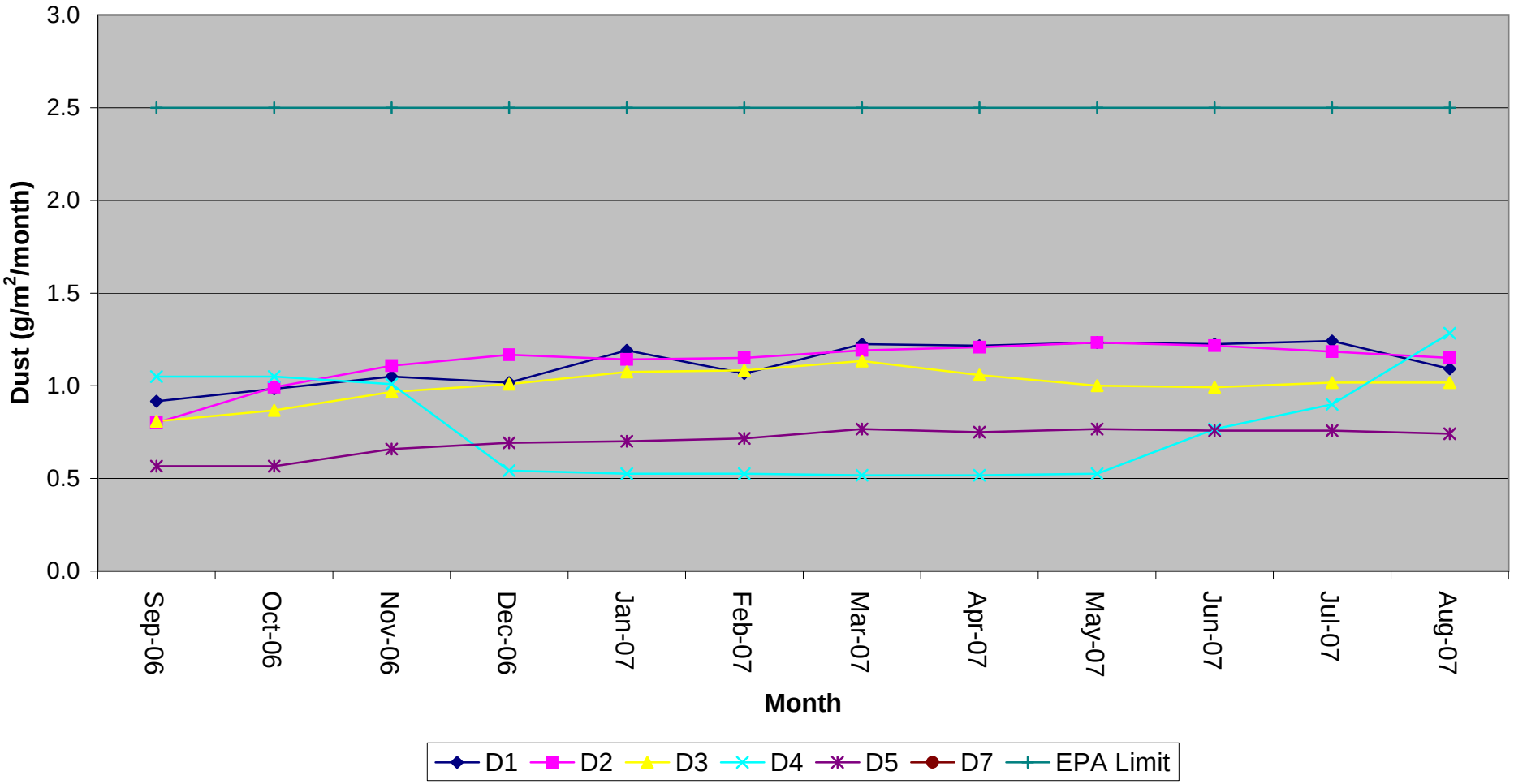
Date	High Noon	Twin Houses	Date	High Noon	Twin Houses
5-Sep-06	25	n.a.	13-Mar-07	17	16
8-Sep-06	3	7	19-Mar-07	24	39
14-Sep-06	5	6	25-Mar-07	11	12
20-Sep-06	21	16	31-Mar-07	19	23
26-Sep-06	13	12	6-Apr-07	15	17
2-Oct-06	15	21	12-Apr-07	23	22
8-Oct-06	28	21	18-Apr-07	17	19
14-Oct-06	19	17	25-Apr-07	5	8
20-Oct-06	16	11	30-Apr-07	2	7
26-Oct-06	23	24	6-May-07	15	24
1-Nov-06	20	17	12-May-07	7	8
7-Nov-06	12	11	18-May-07	4	8
13-Nov-06	32	31	24-May-07	4	13
19-Nov-06	16	18	30-May-07	3	7
25-Nov-06	24	23	5-Jun-07	6	9
1-Dec-06	41	34	11-Jun-07	1	27
7-Dec-06	18	19	17-Jun-07	2	2
13-Dec-06	26	24	23-Jun-07	6	4
19-Dec-06	29	27	29-Jun-07	2	2
25-Nov-06	15	15	5-Jul-07	10	11
31-Dec-06	12	13	11-Jul-07	2	1
6-Jan-07	25	17	17-Jul-07	4	4

Graph 1 - Duralie Monthly Dust Deposition
September 2006 to August 2007



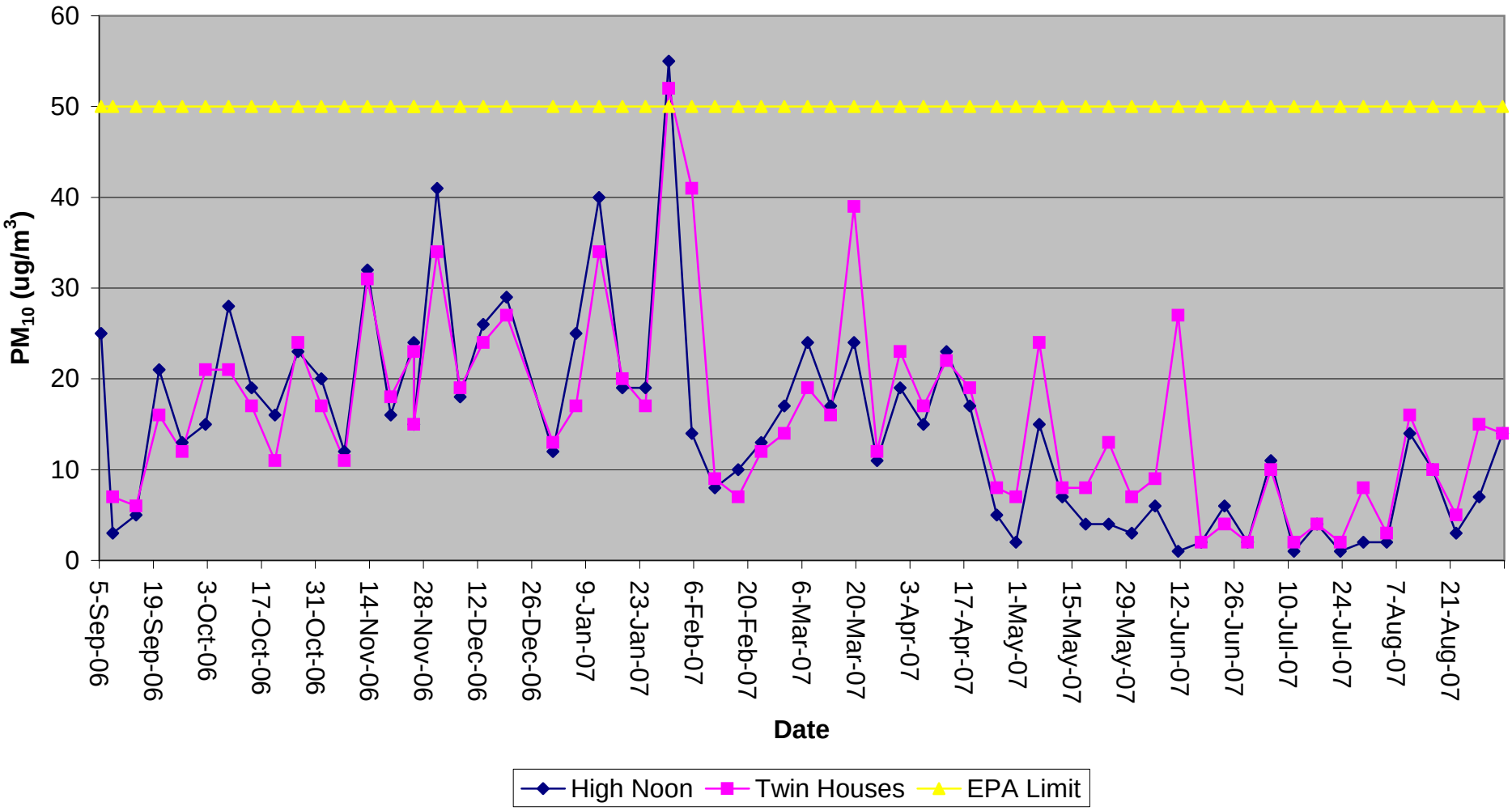
Site D4 in August contaminated by bird dung and insects;
Site D4 in June also impacted by insects.

Graph 2 - Duralie Dust Deposition
Annual Rolling Average
September 2006 to August 2007



Note:
Insufficient data to establish an annual rolling average for Site D7.

Graph 3 - Duralie High Volume Dust Monitoring - Particulate Matter (PM_{10})
September 2006 to August 2007



Note:
Jan 30 results elevated by smoke from bushfires.

Date	High Noon	Twin Houses	Date	High Noon	Twin Houses
12-Jan-07	40	34	23-Jul-07	2	1
18-Jan-07	19	20	29-Jul-07	8	2
24-Jan-07	19	17	4-Aug-07	3	2
30-Jan-07	55	52	10-Aug-07	16	14
5-Feb-07	14	41	16-Aug-07	10	10
11-Feb-07	8	9	22-Aug-07	5	3
17-Feb-07	10	7	28-Aug-07	15	7
23-Feb-07	13	12	3-Sep-07	14	14
01-Mar-07	17	14			
7-Mar-07	24	19			

Graph 4 shows the running/cumulative average for the two HVAS during the reporting period. The running average for the "High Noon" ranged between 10.4 and 16.1 ug/m^3/day whilst "Twin Houses" ranged between 10.2 and 17.0 ug/m^3/day. Thus, annual averages for both sampling locations were below the 30 ug/m^3/day EPA recommended limit.

Reporting

Six-monthly air quality monitoring data for the period commencing September 2006 was placed on the GCL website in April 2007. Data for the second six month period (commencing March 2007) is provided within this report and which will also be publicly available by being placed on the GCL website.

Air quality data is also provided quarterly to the CCC.

Complaints

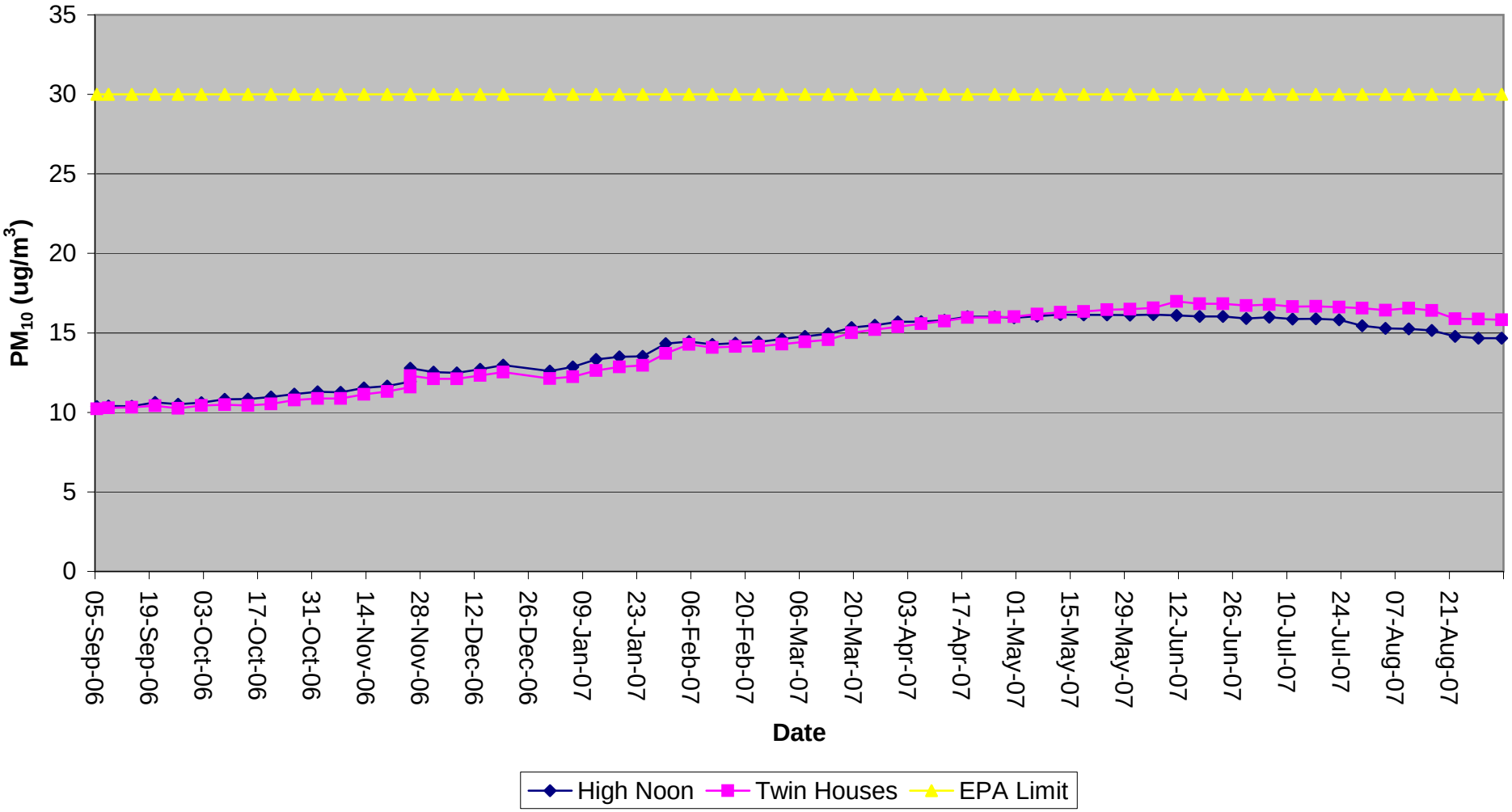
Two (2) complaints relating to air quality issues were received during the reporting period.

National Pollutant Inventory

The Duralie Coal Mine provided a National Pollutant Inventory (NPI) report to the NSW EPA for the twelve month period ending June 30, 2006. The presentation of Duralie Coal's emission data on the Federal Government's NPI website (www.npi.gov.au) is provided within Appendix II (Environmental Monitoring Data).

Duralie Coal's report for the twelve month period ending June 30, 2007 will be provided in the next AEMR.

Graph 4 - High Volume Dust Analysis (PM_{10}) Rolling Average
September 2006 to August 2007



NOISE

Noise Criteria and Control Procedures

A Noise Management Plan (NMP) was produced in December 2002 (and supplemented by a Noise Monitoring Plan approved by the DoP in May 2007) to develop procedures for the management of noise emissions during the construction and operation of the Duralie Coal Mine. The NMP was provided to Great Lakes Council, EPA, Planning NSW and members of CEMCC.

Under the 1999 Development Consent, DCPL was required to undertake six monthly noise monitoring surveys, as part of its Development Consent, which involve measuring and recording the $L_{eq\ (15minute)}$ noise level at locations specified by the EPA in order to assess compliance with noise limits imposed on the mine.

The 2006 Development Consent Modification requires quarterly noise monitoring and nominates $L_{eq\ (15minute)}$ noise limits at a series of nearby privately owned properties. The Noise Monitoring Plan approved in 2007 provides a framework for this quarterly monitoring and addresses the requirements of the EPL with respect to noise monitoring. The locations as specified under DCPL's EPL are the southern mine freehold property boundary (adjacent to Johnsons Creek Road – designated as N1) or the alternative site AS1 (Off Johnsons Creek Road; Gibson owner and Kennedy tenant), the Doherty Property (Johnsons Creek Road – designated as N2) and the ex-Harrison Property (now owned by DCPL, Duralie Road – designated as N3).

Three (3) noise surveys were conducted during the reporting period. These surveys were conducted during October 2006, May 2007 and July 2007.

Review of Noise Survey Results

The results of the October 2006, May 2007 and July 2007 surveys are provided in Table 12.

Table 12 – Contributed Mine Noise During Surveys

Monitoring Location[1]	**Mine Contribution $Leq_{0eq(15\ minute)}$ for Day 24/10/06**	**Mine Contribution $Leq_{0eq(15\ minute)}$ for Evening 24/10/06**	**Mine Contribution $Leq_{0eq(15\ minute)}$ for Night 24-25/10/06**	**Noise Limits (day/evening/night) $Leq_{0eq(15\ minute)}$**
AS1 Gibson	28	Nil	<35,<35	35
N2 Doherty	<30	Nil	<35,<35	35
N3 Ex Harrison	<30	Nil	<35,<35	35
Monitoring Location[1]	**Mine Contribution $Leq_{0eq(15\ minute)}$ for Day 01/05/07**	**Mine Contribution $Leq_{0eq(15\ minute)}$ for Evening 01/05/07**	**Mine Contribution $Leq_{0eq(15\ minute)}$ for Night 02/05/07**	**Noise Limits (day/evening/night) $Leq_{0eq(15\ minute)}$**
AS1 Gibson	Nil	<35	44, <30	35
N2 Doherty	<34	<35	Nil, <35	35
N3 Ex Harrison	<35	<35	<35, <35	35

Monitoring Location[1]	Mine Contribution $Leq_{0eq(15\ minute)}$ for Day 17/07/07	Mine Contribution $Leq_{0eq(15\ minute)}$ for Evening 16/07/07	Mine Contribution $Leq_{0eq(15\ minute)}$ for Night 16-17/07/07	Noise Limits (day/evening/night) $Leq_{0eq(15\ minute)}$
AS1 Gibson	<30	<30	<30, <30	35
N2 Doherty	<34	<35	<30, 38	35
N3 Ex Harrison	<30	35	<30, <30	35

[1] Monitoring locations (see Figure 4 in P&A volume for the location of these residences in relation to the mine site)

The three noise surveys conducted during the reporting period concluded that the Duralie Mine was compliant with the EPA noise level criteria at all monitored locations under the prevailing atmospheric conditions with the exception of site AS1 on one occasion during the night component of the May 2007 survey. The mine contributed noise level recorded at the Doherty property during the night-time component of the July 2007 survey (38 dB(A) $Leq_{(15minute)}$) was deemed not to be an exceedance of the EPA noise level criteria due to the contribution of a strong temperature inversion prevailing at the time.

Additional Environmental Noise Surveys

In response to noise complaints received during the Winter 2007 period, one location was subject to a limited noise survey during July 2007. This monitoring location was sited to the southeast of the Duralie Coal Mine.

The survey concluded that, at the time of the survey, the Duralie Coal Mine was compliant with the $35dB(A)_{Leq,\ 15\ minute}$ Environmental Protection Licence criterion.

The property owner adjacent to the monitoring location was provided with a copy of the noise survey report.

Mobile Plant Noise Assessments

Key items of mobile plant – typically haul trucks – are regularly assessed for noise outputs. Availability of mobile plant for noise testing is subject to production requirements and servicing/maintenance/breakdowns.

Noise assessments of haul trucks occurred in October 2006 and May 2007.

Statement of Environmental Effects (SEE) Comparison

The 1998 SEE provided night time mine operational noise audibility predictions.

On the basis of current monitoring locations and correspondence with locations considered within the SEE, predicted contributed mine noise levels for both the Doherty and ex-Harrison properties were consistent with monitoring results.

Complaints

Sixteen (16) noise related complaints were received during the reporting period.

VIBRATION AND AIRBLAST

Blast Criteria and Control Procedures

Blasting is conducted in accordance with a Blasting/Vibration Management Plan (BVMP). Blasting limits are imposed by the site's EPL. The requirement to monitor blasts for ground vibration and overpressure is contained with the EPL, Development Consent conditions and the Mining Lease (ML 1427).

Permanent blast monitors are located on the Schultz property (Bucketts Way, south west of mine); Doherty property (Johnsons Creek Road, north east of mine) and the Holmes property (Duralie Road, north west of mine). The locations of these permanent blast monitoring locations are shown on Figure 5 (P&A volume).

Additional blast monitors are utilised primarily for the assessment of ground vibration at strategic locations such as nearby rail line culverts, dam walls, the train load out bin, electricity transmission power poles etc when it is considered that blasting operations are sufficiently close to such structures that there is the potential for damage to those structures as a result of blasting

The EPL conditions state that overpressure caused by blasting at monitored locations may exceed 115 dB(L) for 5% of blasts during the reporting period but must not exceed 120 dB(L) at any time. Similarly, ground vibration at monitored locations caused by blasting may exceed a peak particle velocity of 5 mm/s for 5% of blasts during the reporting period but not exceed 10 mm/s.

Residents living within two (2) kilometres of an area to be blasted were notified of intended blasting, unless they have requested to not be so advised prior to the Development Consent being modified in 2006. Persons living more that two (2) kilometres from the area to be blasted were also provided with such notification if so requested. Such notification was provided as soon as possible following confirmation of the blasting schedule by the contract miner. Those persons receiving notification of blasting were provided with information regarding any alterations to the blasting schedule where sufficient time allowed.

With the introduction of the modification of the Development Consent a "blasting hotline" was established. This system allows the public to telephone a dedicated number (65 384 213) and be advised of intended blasts. In addition, a nearby landowner is advised by email of proposed blasting and blasting results.

Dilapidation (structural) surveys of two privately owned dwellings located in the vicinity of the mine are routinely carried out by an independent structural engineer. In addition, surveys can be commissioned following an approach by a landowner concerned about dwelling

damage which they consider may be related to mining activity.

Three such surveys were undertaken in September 2006. Two of these surveys were of dwellings previously inspected whilst the third was commissioned following an approach made to Duralie Coal. The surveys did not find any structural damage caused by blasting.

Review of Blast Monitoring Results

The airblast overpressure and ground vibration results for all blasts undertaken during the reporting period are shown in Table 13 on the following page.

Table 13 - Blast Monitoring Results

Date	Holmes		Doherty		Schultz		Monitored Blasts	Blasts > 115dBL or 5mm/s	% Blasts > 115dBL or 5mm/s
	mm/s	dBL	mm/s	dBL	mm/s	dBL			
7-Sep-06	not recorded[3]	not recorded[3]	0.76	113.9	not recorded[2]	not recorded[2]	1	0	0.0%
11-Sep-06	0.25	103.7	0.40	104.7	<0.22	<109.9	2	0	0.0%
18-Sep-06	0.35	106.3	0.71	108.6	<0.22	<109.9	3	0	0.0%
19-Sep-06	<0.22	<110.0	<0.22	<110.1	<0.22	<109.9	4	0	0.0%
22-Sep-06	0.3	104.6	0.59	106.3	<0.22	<109.9	5	0	0.0%
26-Sep-06	0.27	100.0	0.34	102.7	<0.22	<109.9	6	0	0.0%
28-Sep-06	0.25	103.3	0.28	106.6	<0.22	<109.9	7	0	0.0%
12-Oct-06	0.45	101.2	1.33	105.5	<0.22	<109.9	8	0	0.0%
16-Oct-06	0.45	104.6	0.32	107.4	<0.22	<109.9	9	0	0.0%
19-Oct-06	0.27	116.4	0.42	116.0	<0.22	<109.9	10	1	10.0%
19-Oct-06	0.25	109.3	not recorded[2]	107.5	<0.22	not recorded[2]	11	1	9.1%
24-Oct-06	0.25	101.2	<109.9	108.0	<0.22	<109.9	12	1	8.3%
27-Oct-06	0.25	112.7	<109.9	not monitored[3]	0.03	<109.9	13	1	7.7%
27-Oct-06	<0.22	<110.0	<109.9	112.7	<0.22	<109.9	14	1	7.1%
31-Oct-06	<0.22	<110.0	<109.9	111.0	<0.22	<109.9	15	1	6.7%
1-Nov-06	0.32	116.3	<109.9	116.7	not recorded[2]	<109.9	16	2	12.5%
6-Nov-06	0.22	101.2	<109.9	108.9	<0.22	<109.9	17	2	11.8%
8-Nov-06	0.27	105.7	<109.9	107.0	<0.22	<109.9	18	2	11.1%
9-Nov-06	0.27	108.1	<109.9	108.8	<0.22	<109.9	19	2	10.5%
10-Nov-06	0.27	109.1	<109.9	115.8	<0.22	<109.9	20	3	15.0%
13-Nov-06	0.67	112.0	<109.9	<110.1	<0.22	<109.9	21	3	14.3%
16-Nov-06	<0.22	<110.0	111.8	112.0	<0.22	<109.9	22	3	13.6%
17-Nov-06	0.30	105.3	<109.9	<110.1	<0.22	111.8	23	3	13.0%
21-Nov-06	<0.22	<110.0	<109.9	105.2	<0.22	<109.9	24	3	12.5%
23-Nov-06	<0.22	<110.0	not recorded[2]	111.9	<0.22	<109.9	25	3	12.0%
27-Nov-06	0.27	103.7	<109.9	110.4	<0.22	not recorded[2]	26	3	11.5%
29-Nov-06	not recorded[4]	not recorded[4]	<109.9	114.2	not recorded[2]	<109.9	27	3	11.1%
1-Dec-06	<0.22	<110.0	<109.9	106.4	<0.22	<109.9	28	3	10.7%
5-Dec-06	0.27	104.9	<109.9	106.3	<0.22	<109.9	29	3	10.3%
6-Dec-06	0.47	104.9	<109.9	110.1	<0.22	<109.9	30	3	10.0%
8-Dec-06	0.32	106.0	<109.9	110.3	<0.22	<109.9	31	3	9.7%
11-Dec-06	<0.22	<110.0	<109.9	<110.1	<0.22	<109.9	32	3	9.4%
12-Dec-06	0.35	108.8	<109.9	114.6	<0.22	<109.9	33	3	9.1%
13-Dec-06	<0.22	<110.0	<109.9	107.7	<0.22	<109.9	34	3	8.8%
14-Dec-06	0.40	103.7	<109.9	105.4	<0.22	<109.9	35	3	8.6%
18-Dec-06	0.42	100.0	not recorded[2]	105.0	<0.22	<109.9	36	3	8.3%
19-Dec-06	<0.22	<110.0	<109.9	99.5	<0.22	not recorded[2]	37	3	8.1%
20-Dec-06	<0.22	<110.0	<109.9	96.4	<0.22	<109.9	38	3	7.9%
3-Jan-07	0.42	110.0	<109.9	112.0	<0.22	<109.9	39	3	7.7%
9-Jan-07	0.35	107.8	<109.9	110.1	<0.22	<109.9	40	3	7.5%
10-Jan-07	<0.22	<110.0	<109.9	101.0	<0.22	<109.9	41	3	7.3%
11-Jan-07	0.32	108.3	<109.9	111.8	<0.22	<109.9	42	3	7.1%
15-Jan-07	<0.22	<110.0	<109.9	102.9	<0.22	<109.9	43	3	7.0%

Date	Holmes		Doherty		Schultz		Monitored Blasts	Blasts > 115dBL or 5mm/s	% Blasts > 115dBL or 5mm/s
	mm/s	dBL	mm/s	dBL	mm/s	dBL			
16-Jan-07	<0.22	<110.0	<109.9	104.7	<0.22	<109.9	44	3	6.8%
19-Jan-07	0.35	104.6	<109.9	104.9	<0.22	<109.9	45	3	6.7%
24-Jan-07	0.69	111.7	<109.9	110.0	<0.22	<109.9	46	3	6.5%
25-Jan-07	0.27	100.6	<109.9	110.7	<0.22	<109.9	47	3	6.4%
30-Jan-07	0.64	102.3	<109.9	105.4	<0.22	<109.9	48	3	6.3%
2-Feb-07	0.52	103.3	<109.9	107.5	<0.22	<109.9	49	3	6.1%
8-Feb-07	0.37	103.3	<109.9	103.1	<0.22	<109.9	50	3	6.0%
14-Feb-07	0.37	109.5	<109.9	113.7	<0.22	<109.9	51	3	5.9%
19-Feb-07	0.42	102.8	<109.9	104.5	<0.22	<109.9	52	3	5.8%
24-Feb-07	<3.1	<110.2	<109.9	88.9	0.38	<109.9	53	3	5.7%
2-Mar-07	0.45	94.7	<109.9	84.9	<0.22	<109.9	54	3	5.6%
6-Mar-07	0.35	93.8	<109.9	100.1	<0.22	<109.9	55	3	5.5%
14-Mar-07	0.40	82.2	<109.9	100.1	<0.22	<109.9	56	3	5.4%
20-Mar-07	0.31	83.8	<109.9	82.9	<0.22	<109.9	57	3	5.3%
28-Mar-07	0.34	80.3	<109.9	84.9	<0.22	<109.9	58	3	5.2%
29-Mar-07	0.46	82.2	<109.9	90.9	<0.22	<109.9	59	3	5.1%
5-Apr-07	0.54	88.3	<109.9	87.8	<0.22	<109.9	60	3	5.0%
13-Apr-07	0.59	83.8	<109.9	88.9	<0.22	<109.9	61	3	4.9%
23-Apr-07	<0.22	<110.0	80.5	<110.1	<0.22	<109.9	62	3	4.8%
26-Apr-07	<0.22	<110.0	<109.9	88.9	<0.22	80.5	63	3	4.8%
27-Apr-07	0.59	80.3	<109.9	93.2	<0.22	<109.9	64	3	4.7%
8-May-07	0.59	80.3	<109.9	91.7	<0.22	<109.9	65	3	4.6%
9-May-07	<0.22	<110.0	<109.9	88.9	<0.22	<109.9	66	3	4.5%
16-May-07	0.39	77.8	<109.9	104.9	<0.22	<109.9	67	3	4.5%
29-May-07	0.31	77.8	<109.9	106.9	<0.22	<109.9	68	3	4.4%
1-Jun-07	0.25	86.3	<109.9	84.9	<0.22	<109.9	69	3	4.3%
6-Jun-07	0.26	77.8	<109.9	86.4	<0.22	<109.9	70	3	4.3%
20-Jun-07	0.28	100.5	<109.9	98.1	<0.22	<109.9	71	3	4.2%
28-Jun-07	0.33	103.6	<109.9	86.4	<0.22	<109.9	72	3	4.2%
28-Jun-07	0.23	98.4	<109.9	98.8	<0.22	<109.9	73	3	4.1%
4-Jul-07	0.35	103.6	<109.9	102.7	<0.22	<109.9	74	3	4.1%
6-Jul-07	0.25	104.0	<109.9	100.1	<0.22	<109.9	75	3	4.0%
12-Jul-07	0.35	104.4	<109.9	95.5	<0.22	<109.9	76	3	3.9%
16-Jul-07	<0.22	<110.0	<109.9	<110.1	<0.22	<109.9	77	3	3.9%
20-Jul-07	0.30	101.1	<109.9	86.4	<0.22	<109.9	78	3	3.8%
24-Jul-07	<0.22	<110.0	<109.9	82.9	<0.22	<109.9	79	3	3.8%
27-Jul-07	0.38	103.2	<109.9	88.9	<0.22	<109.9	80	3	3.8%
31-Jul-07	0.33	102.2	<109.9	86.4	<0.22	<109.9	81	3	3.7%
8-Aug-07	0.43	103.2	<109.9	88.9	<0.22	<109.9	82	3	3.7%
14-Aug-07	0.38	103.6	<109.9	86.4	<0.22	<109.9	83	3	3.6%
16-Aug-07	<0.22	<110.0	<109.9	84.9	<0.22	<109.9	84	3	3.6%
21-Aug-07	<0.22	<110.0	<109.9	98.8	<0.22	<109.9	85	3	3.5%
24-Aug-07	<0.22	<110.0	<109.9	109.3	<0.22	<109.9	86	3	3.5%

Date	Holmes		Doherty		Schultz		Monitored Blasts	Blasts > 115dBL or 5mm/s	% Blasts > 115dBL or 5mm/s
	mm/s	dBL	mm/s	dBL	mm/s	dBL			
24-Aug-07	0.43	106.2	<109.9	93.2	<0.22	<109.9	87	3	3.4%
28-Aug-07	<0.22	<110.0	<109.9	<110.1	<0.22	<109.9	88	3	3.4%
29-Aug-07	0.30	99.2	<109.9	90.0	<0.22	<109.9	89	3	3.4%
31-Aug-07	<0.22	<110.0	<109.9	91.7	<0.22	<109.9	90	3	3.3%

Table Notations:

Note 1 - blasts > 115dBL or 5 mm/s considered an "exceedance" for reporting purposes.
Note 2 – triggered prior to blast on wind.

Review of Overpressure Results

During the reporting period (period ending 4 September 2007) there were three (3) blasts where overpressure exceeded 115 dBL. In addition, there were no blasts where overpressure exceeded 120 dBL.

Blasts exceeding 115dBL were:

19 October 2006 - Doherty monitor 116.0 dBL, Holmes monitor 116.4 dBL
1 November 2006 - Doherty monitor 116.7 dBL, Holmes monitor 116.3 dBL
10 November 2006 - Doherty monitor 115.8 dBL

Note that all blasts were considered to have been monitored. Non-monitored blasts were taken as instances where a majority of monitors were not functioning.

Review of Vibration Results

During the reporting period (period ending 4 September 2007) there were no blasts where ground vibration exceeded 5 mm/s.

Complaints

There were no blast related complaints received during the reporting period.

OTHER ENVIRONMENTAL COMPLAINTS

There were no complaints which would be categorised other than those categories already discussed.

NATIONAL POLLUTANT INVENTORY

National Pollutant Inventory (NPI) reporting for the 2005/2006 reporting year was submitted in September 2006 and the 2006/2007 submission was made in August 2007.

The NPI report as listed on the Commonwealth Department of the Environment and Heritage website (http://www.npi.gov.au) ranks all reportable substances for the 2005/2006 reporting year as low (see Plans & Appendicies Volume).

COAL WASHERY REJECTS / REJECT MANAGEMENT

Handling and Disposal Procedures

Rock greater than 200mm is removed from ROM coal using a rotary breaker at the Duralie Mine. The separated rock is conveyed to a bin from which it is loaded out and trucked to be buried on site as potentially acid forming (PAF) waste. All other reject fractions are generated at the Stratford Mine and deposited along with processing waste fractions produced from the washing of Bowens Road North and Stratford deposit coals.

Refer to the Stratford Coal Mine AEMR for details regarding the handling and disposal of reject material at the Stratford site.

Chemical Characterisation of Wastes

Waste rock has been previously analysed as part of the EIS.

Chemical characterisation of wastes during the reporting period has consisted of:

- field checking for acidification potential (checking the pH of a waste rock slurry); and
- geochemical (NAG – nett acid generating) testing of waste rock profiles.

Chemical characterisation of wastes was also supported by assessment of pit sump and other mine water pH's.

To date, there have been only isolated incidences of acid formation (within the "Strip 3" pit area). Acidic water has been treated by ground limestone addition.

OTHER WASTE MANAGEMENT AND RECYCLING

Sewerage Treatment and Disposal

Sewage treatment at the mine site involves a single system that manages all generated sewage. Sewage is processed using a Garden Master 7100 Elite Aerated Waste Water Treatment System. The system works on the combined principles of primary settlement and aerobic treatment. Treated effluent is discharged via a spray system into a grassed area located to the

southwest of the Main Office.

These sewage treatment facility is registered with Great Lakes Council.

Fuel Containment

Fuel (diesel) storage at the mine site consists of a single 110,000 litre capacity above ground bunded storage tank. The storage area is subject to Dangerous Goods Licence Number 35/036328.

Oil and Grease Containment and Disposal

Bulk oil is stored within a bunded area.

Used engine oils (lubricating oils) and hydraulic oils are recovered during plant and vehicle servicing in the workshop and in the field.

Within the workshop area, separate bunded areas hold a 5,000 litre waste oil tank and bulk oils and greases (tanks and drums). A washpad is utilised to clean vehicles and plant either prior to leaving site or for general servicing/repair. Off the washpad is a concrete sump which serves to trap silt and from which oil is removed using a skimmer. Waste oil collected is removed from site by a commercial contractor for subsequent recycling off-site.

In addition, Interail – the train contractor at site – provides temporary storage for waste oil prior to periodic removal by the waste oil contractor who services the Duralie site. Waste oil is stored in 200 litre drums mounted upon a bunding device.

Contractors are generally required to manage and remove from site all waste oil generated during their operations.

Used Tyres

Tyres have, to date, not been disposed of at the Duralie site. Tyres, prior to March 2007, typically completed their useful life at the Stratford site prior to burial at the Stratford Mine sites within backfilled sections of pit. Disposal was undertaken in accordance with the following conditions as specified by EPA to Stratford Coal in correspondence dated 24 November 1995 (EPA Ref: 272234A1 ST:DY):

- Tyres are placed in discrete lots and buried with a minimum cover of 5 metres;
- Disposal sites are adequately recorded for future reference. The depth of disposal is also recorded;
- Tyres stockpiled for disposal are adequately protected from fires; and
- Tyres disposed of are not placed with any other combustible material.

The EPA advised in correspondence dated 22 May 2007 that a EPL variation was not required for onsite dispose of used tyres generated on the premises. It is proposed that future disposal of used tyres on site will follow the Stratford protocol.

Rubbish Disposal

All domestic rubbish (e.g. food scraps, paper etc) is deposited in industrial rubbish bins which are periodically emptied by a waste contractor for subsequent disposal.

Scrap metal produced by the HWE site workshop is collected and transferred off site by a scrap metal merchant. The merchant collects the scrap metal whenever the bins become full.

Aluminium drink cans are collected for recycling.

All contractors are responsible for the collection and removal of their own rubbish.

HAZARDOUS AND EXPLOSIVES MATERIALS MANAGEMENT

Hazardous materials are stored and used in accordance with relevant material safety data sheets (MSDS). MSDS's are kept in a file inside the First Aid Room and are available from an online database.

No detonators or bulk explosives are currently stored at site.

Status of Licences

A Notification of Dangerous Goods on Premises application was made to the NSW Workcover Authority by the mining contractor, Leighton Mining, in correspondence dated 3 October 2007.

CULTURAL AND NATURAL HERITAGE CONSERVATION

Archaeological surveys conducted at the Duralie Mine site in the 1980's and 1990's did not identify any Aboriginal sites or items with the exception of one site. A tree, to be subsequently referred to as the "honey tree" was the subject of a site inspection involving various parties including representatives of NPWS in November 1998. The consensus at the time of inspection was that the "honey tree", an old ironbark, had had timber pieces inserted into the trunk in a spiral pattern to allow someone to scale the tree and access the crown – possibly to collect honey. It was not clear whether such timber insertion would have been performed by an Aboriginal person or early European settler. The "honey tree" was subsequently listed on the NPWS Aboriginal Heritage Information Management System

(AHIMS) database.

The "honey tree" is located between the eastern extent of the mining excavation and the Main Northern Railway Line. The tree has been protected by erection of a painted post and rail fence about the tree. Signage on the fence directs persons not to enter the area.

The Duralie Mine has an Aboriginal Heritage Management Protocol (AHMP), the purpose of which is to address the requirements of development consent condition 41, namely:

(a) The Honey Scarred Tree as identified by NPWS shall not be disturbed; and
(b) In the event that artefacts are identified on the site during development through earthworks, construction or operation of the coal mine, the Applicant shall contact the NPWS and cease work in the relevant location pending investigation of its heritage value.

In accordance with the AHMP topsoil disturbance during earthworks, construction and operation of the mine has been monitored utilising officers of the Karuah Local Aboriginal Land Council (KLALC). During the reporting period KLALC officers did not report any Aboriginal artefacts.

During 2003 and 2004 former mine workings from mining activities conducted during the 1930's were uncovered. Items considered to have historical significance such as timber pit props, rail and broken pieces of coal skip wheels were provided to the Stroud Historical Society.

MANAGEMENT OF NATIVE FAUNA and FLORA

DCPL endeavour to properly manage native fauna and flora which are either impacted or have the potential to be impacted by mining operations. In keeping with this philosophy a Vegetation Clearance Protocol (VCP) has been prepared which provides details on flora and fauna management strategies. Under the VCP, pre-clearance surveys and habitat assessment are undertaken in areas of native vegetation prior to disturbance.

"Habitat" trees are those trees considered to have the potential to provide shelter for arboreal animals (eg via hollows etc). Upon felling of habitat trees, any fauna recovered during the felling operation are relocated to suitable alternative habitat.

On 4 June 2007 when a dead tree (estimated 17m high, 0.5m diameter at breast height) was felled as part of targeted tree clearance to support communications transmission, a squirrel glider (a vulnerable species) was detected. The tree was significantly weakened by vertical fracturing within the trunk and it was determined that the safe use of an excavator to allow a gradual let down of the tree was not possible. The impact of the felled tree striking ground resulted in the death of the glider. The incident was reported to the National Parks and Wildlife Service.

Generally, the extent of tree clearance during the reporting period was quite minor since mining activities were generally confined to previously disturbed areas or areas that were already essentially cleared of trees.

EMPLOYEE ENVIRONMENTAL AWARENESS TRAINING

The majority of operational employees at the Duralie Mine previously worked at the Stratford Mine. As such they were exposed to an Environmental Awareness Programme previously given to staff and employees of that site. This programme involved presentations on a series of environmental topics at "tool box talks".

Prior to the commencement of mining operations at the Duralie Mine site, plant operators were given a presentation by the Environmental Officer on issues of specific relevance to the Duralie site – with particular emphasis on water management and acid rock drainage.

Contractors and new employees working at site are also provided with information on environmental issues as part of induction training. This includes elements such as the reporting of oil or fuel spills, removal of wastes etc.

REHABILITATION

The primary objectives of the rehabilitation programme are:

- Production of a landform which is stable and consistent with the local surrounding landscape;
- Minimisation of erosion;
- Re-instatement of pre-mining land capability for the final land uses of grazing, woodland habitat and/or other appropriate land use;
- Tree and shrub establishment, mounding or bunding to provide visual amenity and to re-establish flora and fauna corridors and habitats; and
- To minimise the amount of disturbed land awaiting rehabilitation.

REHABILITATION PRINCIPLES

Rehabilitation of disturbed areas is undertaken concurrent with ongoing mining operations.

Disturbances associated with the construction of the mine infrastructure (e.g. rail siding and access road batters, office areas) have been rehabilitated using a variety of techniques including reshaping, topsoil placement, seeding/fertilising and hydramulching.

Rehabilitation of the out of pit overburden dump involves the contouring of the outer dump faces to an overall slope of 1 in 4 followed by drainage works (ie contour drains with grade 1% flattening to 0.6%).

A small proportion of the out of pit dump lies on a natural ground profile which falls away from the mining excavation. In order to limit the potential for infiltrating rain to accumulate salts and thence to charge a local waterway, a nominal 0.6m compacted clay layer was placed beneath the topsoil covering.

Topsoil, previously stripped from the site, is respread to a nominal thickness of 100mm and revegetated. Direct placement of freshly stripped topsoil on areas under rehabilitation is undertaken wherever possible.

The overburden dump is rehabilitated in progressive increments to the final landform so that contaminated water catchment areas are minimised.

Topsoil is removed from ahead of the advancing pit or overburden dump. All suitable and accessible topsoil material is removed. The topsoil is pushed into heaps by dozers and loaded into trucks by excavator. The topsoil is either immediately respread onto recontoured areas or is stockpiled for later re-use.

To minimise degradation of topsoil quality during stockpiling the following measures are in place: stockpiling time is minimised whenever possible; topsoil stockpiles do not exceed 3m in height (average 1.5m) and stockpiles are reshaped, seeded with pasture grasses and

fertilised to maintain biological activity. These measures help prevent erosion, soil loss and limit dust generation.

Following drainage works and topsoil placement, site preparation involves chisel ploughing for grass establishment on flat ground or ripping (300-400mm) on slopes.

Areas to be rehabilitated will comprise a combination of treed and pastured areas. Trees are planted to achieve maximum aesthetic and screening effects as well as providing windbreaks, woodlots, stock shelter and habitat enhancement. Local endemic native species (particularly trees identified in the EIS) will be used wherever possible based on trialing of various species in the initial rehabilitation areas. Pasture seed utilised will consist of a mix based on previous sowings, seasonal availability and external advice.

In terms of the site's topsoil balance, it is anticipated that sufficient topsoil resources will be available to complete rehabilitation. This expectation is based on topsoil to date being stripped to at least 100mm, deeper topsoil profiles lying in the Coal Shaft Creek area and a final void ultimately being produced. An estimation of stored topsoil on hand is provided below.

TOPSOIL STRIP VOLUMES AND TOPSOIL RESERVES

At the end of the reporting period an estimated 82,000 cubic metres of topsoil was held in various stockpiles.

On the basis of areas currently disturbed that will require rehabilitation in the future (estimate of 100 hectares), there is currently adequate reserves of topsoil to provide a nominal 82 mm cover. However, considering the eventual presence of a final void which will not require topsoiling, future topsoil recovery will augment existing storage volumes and allow for deeper profiles within a re-established Coal Shaft Creek.

REHABILITATION PROGRESS

Rehabilitation has been completed in areas such as the shoulders of the site access road, western (mine water dam) cleanwater diversion drain, rail siding embankments, dam embankments and the Coal Shaft Creek diversion.

Rehabilitation of core mining areas during the reporting period involved completion of a 6.1 hectare area on the southern/southwestern batter of the out of pit waste dump.

Table 14 summarises the main rehabilitation works undertaken in the reporting period.

Table 14 - Summary of Main Rehabilitation Works

Rehabilitation Type	Area (ha)	Sites Treated
Sown Tree Seed & Pasture on Topsoiled Areas	6.1	Southern/southwestern side of out of pit waste dump.
Sown Pasture on Topsoil Stockpiles or former Stockpile Locations	1.3	Six separate topsoil stockpiles – primarily topsoil won from Strip 6 area.

Completed rehabilitation is shown in figure 9 (P&A Volume).

Rehabilitation activities in the next 12 months will centre on:

- Progression of the out of pit emplacement area.

The rehabilitation target for the next reporting period is ten (10) hectares.

A comparison between the 2003 Mining Operations Plan (MOP)[1] rehabilitation estimates and actual achieved rehabilitation (prior to March 2008 or "Year 5" of operations) is as follows:

Total Rehabilitated Area (hectares)
MOP estimate - 14
Achieved - 37.7[2]

Rehabilitation on Slopes (hectares)
MOP estimate - 6
Achieved - 8.7

[1] 2003 MOP rehabilitation estimates should be considered in light of the 2006 mining area extension ("Duralie Extended" approval) which will increase the area requiring rehabilitation.
[2] note that "rehabilitation achieved" includes elements such as the Coal Shaft Creek diversion not fully provided for within the 2003 MOP estimate.

COMMENT ON CURRENT STATUS OF REVEGETATION.

LAND USE MANAGEMENT

Agricultural Report

Cropping

DCPL conducted a trial planting of sorghum ("BMR Pacific Forage Sorghum") commencing in late 2005 within the Type III irrigation area. The trial was undertaken on an eight (8) hectare plot. There were two (2) separate harvesting events during the 2005/2006 season with

the first realising 100 bales and the second 140 bales (a total of 240 bales). The sorghum growth rate was estimated at 160kg/ha/day.

Following the success of the initial trial planting, a second planting was undertaken in the 2006/2007 season. The area sown was increased to 23.5 hectares. A different sorghum variety was sown ("Better Graze Forage Sorghum"). Two harvesting events ("cuts") occurred with the first cut returning 400 bales and the second 200 bales (a total of 600 bales). The sorghum growth rate for this crop has been estimated at 130kg/ha/day.

It is proposed that the area under cropping for the upcoming 2007/2008 season will be increased by an additional 3 hectares.

The presence of the sorghum crop within the Type III irrigation area has been shown to accelerate the water loss by soils in this area when compared to non-cropped areas. This situation supports additional irrigation beyond pre-cropping rates.

The bailed sorghum has found a ready market with local graziers, particularly since local rainfall has not been consistent with historical patterns resulting in the area either being in drought or marginally affected by drought, leading to feed shortages for cattle.

Grazing

There is currently (and is unchanged from the previous two years) an estimated 220 cows and calves grazing approximately 770 hectares (constituting the Mining Lease) on either a lease or agistment basis involving five (5) separate lessees or agisters.

Landscaping and Visual Screening

DCPL produced a Landscaping and Revegetation Management Plan (LRMP) as required under Development Consent condition 31. This document has the purpose of stating a basic philosophy for landscaping and revegetation works together with specific works to be undertaken.

The overall visual impacts of the Duralie Mine are generally considered low. However, some local impacts are deemed to be moderate and these impacts will be ameliorated by undertaking a selection of relevant measures stated in the LRMP and detailed below:

- Minimising (where possible) disturbance to native vegetation, especially where such vegetation is providing visual screening;
- Retention specifically of ridge Open Forest and regrowth forest (where possible);
- Retention of all riparian vegetation along Mammy Johnsons River and those out of pit sections of Coal Shaft Creek;
- Planting of trees to provide screening for the Doherty dwelling;
- Ensuring out of pit emplacement design produces a landform which integrates with the adjoining natural landform;
- Painting of substantial fabricated infrastructure with a colour ("Rivergum") that assists it to blend in with the adjoining landscape;

- Maintenance of infrastructure to retain the ability of such infrastructure to blend into the surrounding landscape over the life of the project; and
- Placement, configuration and direction of lighting to reduce offsite nuisance effects of stray light.

Weed Control

Weed spraying to control blackberry and St John's Wort along the site access road, along the Mine Water Dam diversion drain and within the Type II irrigation area was undertaken during the reporting period.

Feral Animal Control

Feral animals have not been a significant problem on site to date and hence no control practices have been required.

Bush Fire Management

DCPL does not have a formal Bushfire Management Plan specific to the site in place. However, the following bushfire management related activities/works include:

- Improved access to sections of the DCPL landholdings has been created with the construction of the mine;
- LM/HWE can make available an off road water cart for bushfire fighting purposes where suitable access for this machinery is available;
- DCPL routinely (as required) undertakes hazard reduction burns, in consultation with neighbouring property owners/occupiers and the local Bushfire Brigade. No such burns were required during the reporting period; and
- Fuel loads on cleared pastures area on the mine site which are removed from mining operations and adequately fenced are reduced by cattle agistment and/or periodic slashing.

An annual report on fire management related activities which the mine undertook during the calendar year 2006 was provided to the Rural Fire Service based in Tuncurry in February 2007.

Landuse Objective/Current Use

DCPL has prepared a Land Management Plan (LMP) which describes the existing vegetation within the Duralie Mine site and details procedures for the management and control of

vegetation, pests and weeds in order to minimise land degradation.

The LMP has been written in accordance with the Duralie Mine's Development Consent condition 38 (ii), (iii) and (iv) *viz*:

> *The Applicant shall prior to commencement of construction works:*
>
> *(ii) Prepare, implement and regularly update (at its own expense), to the satisfaction and approval of the Director-General in consultation with DLWC and NSW Agriculture, a Land Management Plan for all its land holdings to provide for proper land management including, but not limited to:*
>
> *(a) pastures management, including fertiliser regimes;*
>
> *(b) livestock management and controls;*
>
> *(c) revegetation design to maximise evapotranspiration in the short term;*
>
> *(d) rehabilitation of degraded farmland;*
>
> *(e) eradication of vermin and noxious weeds as required by the Rural Lands Protection Authority, the Prickly Pear Authority and other relevant authorities.*
>
> *(iii) The land management plan shall be revised as necessary and incorporated with the irrigation management plan when the irrigation management plan is prepared under condition 7; and*
>
> *(iv) Details of approved plans shall be made available to the GLC and CEMCC.*

Prior to mining, the project area was used for cattle grazing. It is anticipated that the rehabilitated site will largely be returned to its former landuse.

Areas not required for mining in the short term are used for cattle agistment (where suitable fencing is available in order to prevent cattle from accessing active mining areas). Remnant vegetation and areas of natural regeneration, outside of areas to be affected by mining and associated activities are not disturbed. Fencing in future will be erected (where possible) to protect areas of natural regeneration from cattle grazing pressure or erosion.

Final Void Treatment

A final void will be produced at the northern limit of the mining lease area. This will follow completion of surface mining.

A strategy for management of the final void (to be detailed in the Final Void Management Plan) is required to be submitted to the Department of Planning by 30 September 2008.

COAL TRANSPORTATION

A run of mine (ROM) Coal Transportation Management Plan (CTMP) has been prepared in accordance with Development Consent condition 15(iii). The CTMP details procedures for the monitoring of potential environmental impacts resulting from the storage and subsequent transportation of ROM coal by rail to the Stratford Coal Mine for processing.

QUALITY IMPROVEMENT AND TARGET INITIATIVES

ENVIRONMENTAL MANAGEMENT

The following environmental targets have been set for the next 12 months:

- Minimise noise related complaints reported to the mine; and
- Maintain pace of rehabilitation works.

REHABILITATION

The following rehabilitation target has been set for the next 12 months:

- Complete rehabilitation to the revegetation stage for ten (10) hectares on the out of pit waste dump by the end of May 2008.

LIST OF PLANS (Appendix Volume)

LIST OF APPENDICES (Appendix Volume)

I. Amended or New Approval and Licence Conditions issued during the Reporting Period

II. Environmental Monitoring Data

III. Weather Data (EPA only)

IV. Annual Rehabilitation Report Form (DPI-Minerals only)