



***Environmental  
Management Strategy***  
***for the***  
***Rocglen Coal Mine***



**Whitehaven Coal Mining Pty Ltd**

ABN: 65 086 426 253

***Environmental Management  
Strategy  
for the  
Rocglen Coal Mine***

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## GLOSSARY OF ACRONYMS

AEMR	-	Annual Environmental Management Report
ANZECC	-	Australian and New Zealand Environment Consultative Council
CCC	-	Community Consultative Committee
CHPP	-	Coal Handling and Preparation Plant
PA	-	Project Approval
DECC	-	Department of Environment and Climate Change
DG	-	Director General of Department of Planning, or delegate
DoP	-	Department of Planning
DPI-A	-	Department of Primary Industries - Agriculture
DPI-F	-	Department of Primary Industries - Fisheries
DPI-MR	-	Department of Primary Industries - Mineral Resources
EA	-	Environmental Assessment
EMS	-	Environmental Management Strategy
EP&A Act	-	Environmental Planning and Assessment Act 1979
EP&A Regulation	-	Environmental Planning and Assessment Regulation 2000
EPL	-	Environmental Protection Licence
GSC	-	Gunnedah Shire Council
MOP	-	Mining Operations Plan
NP&W Act	-	National Parks and Wildlife Act 1974
NSC	-	Narrabri Shire Council
ROM	-	Run-of-mine
RTA	-	Roads and Traffic Authority
WCMPPL	-	Whitehaven Coal Mining Pty Ltd

# 1 INTRODUCTION

The Rocglen Coal Mine (“the mine”), previously known as the Belmont Coal Project is located approximately 25km north of Gunnedah and 23km south east of Boggabri (see **Figure 1**). Project Approval (PA) 06\_0198 was granted for the mine by the Minister for Planning on 15<sup>th</sup> April 2008. A copy of PA 06\_0198 is provided in **Appendix 1**. The mine is being developed by Whitehaven Coal Mining Pty Ltd (WCMPL) as an open cut mining operation.

This Environmental Management Strategy (EMS), which forms part of the integrated Mine Management System, describes the overall framework for environmental management on the mine site and for the entire transport route to the Whitehaven Coal Handling and Preparation Plant (CHPP). The EMS also addresses the principal strategies to be adopted, including compliance management and monitoring, conflict resolution and consultation / information dissemination processes.

The operations at the mine will be managed in an integrated manner:

- in accordance with the Project Approval, leases and approvals from the Department of Primary Industries (Mineral Resources) (DPI-MR), the mine’s Environment Protection Licence (EPL) and other licences and approvals from government agencies; and
- in a way which provides for the effective control of all aspects of the operation throughout the life of the mine, i.e. from pre-site development planning, through the site development, construction and operational phases, and culminating in the mine’s decommissioning, final rehabilitation and, ultimately, lease relinquishment and/or satisfaction of long-term performance objectives or obligations.

The requirements of PA 06\_0198 with respect to the timing for submission and contents of the EMS are contained within *Condition 5(1)* which is as follows:

## SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING

*Note: This schedule should be read in conjunction with sections 17 and 18 of the Statement of Commitments.*

### ENVIRONMENTAL MANAGEMENT STRATEGY

1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must be submitted to the Director-General prior to the commencement of construction activities (not including the construction of the Kamilaroi Highway and Hoad Lane intersections and sections 1 and 2 of the road transport route), and:
  - (a) provide the strategic framework for environmental management of the project;
  - (b) identify the statutory requirements that apply to the project;
  - (c) describe in general how the environmental performance of the project would be monitored and managed;
  - (d) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the project;
    - respond to any non-compliance;
    - manage cumulative impacts; and
    - respond to emergencies; and
  - (e) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project.

The Rocglen Coal Mine has an approved life of 12 years from the date of granting the mining lease as per *Condition 2(5)* of PA 06\_0198.

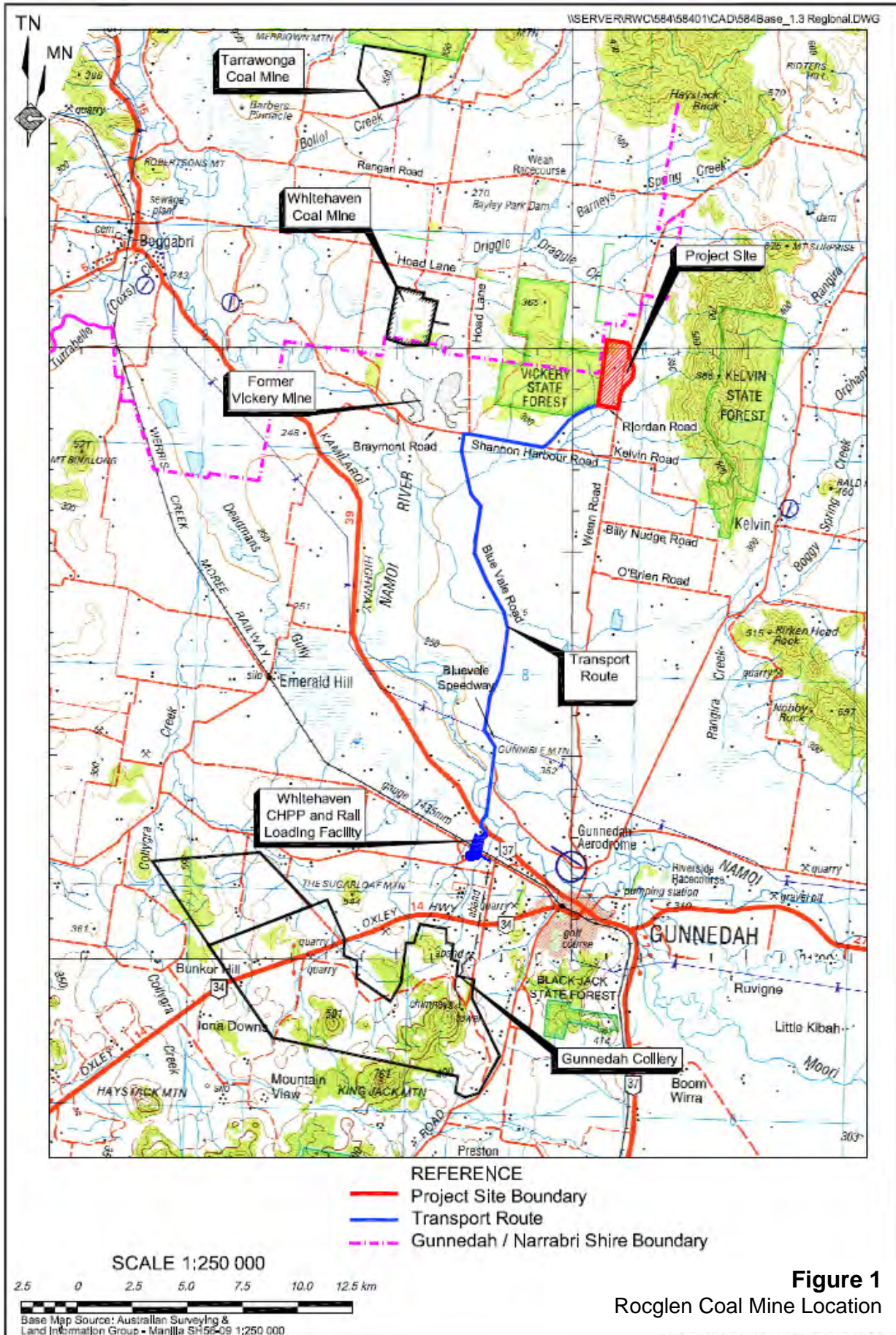


Figure 1  
Rocglen Coal Mine Location

## 2 DESCRIPTION OF THE ROCGLEN COAL MINE DEVELOPMENT

The Rocglen Coal Mine lies within a 366ha site covered by a mining lease which incorporates parts of the “Belmont”, “Glenroc” and “Roseberry” properties, all owned by WCMPL. The grant of the mining lease is a pre-requisite for the commencement of the mining activities approved under PA 06\_0198.

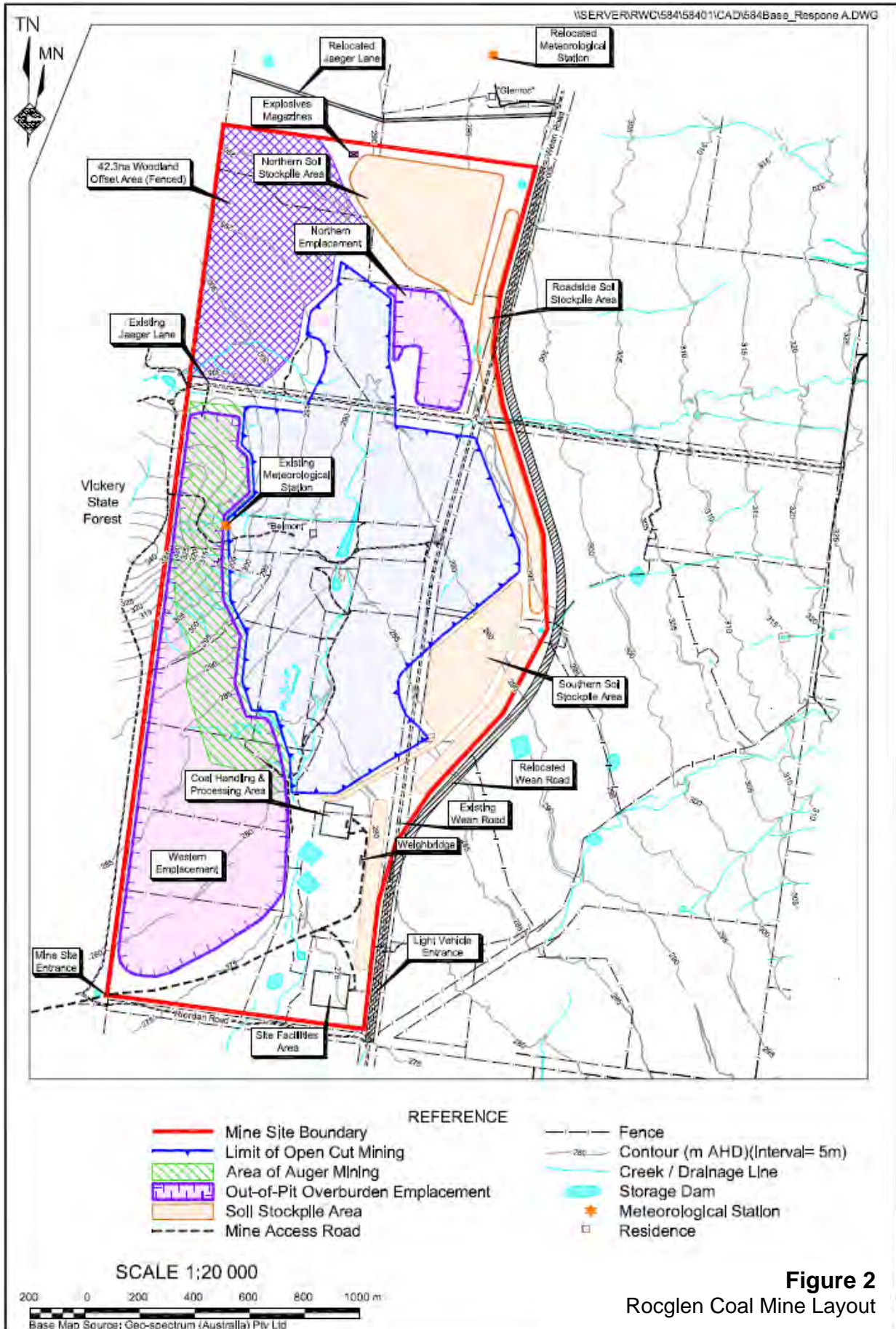
The development of the mine, which has an expected life of approximately 7 to 10 years at an approved production rate of up to 1.5Mtpa Run-of-mine (ROM) coal, will involve the following activities and features as shown in **Figure 2**:

- Coal mining by open cut methods over an area of approximately 91ha.
- Crushing, screening and stockpiling of coal.
- Installation and/or construction of Project Site infrastructure and services, e.g. power supply, water management structures and internal access roads.
- Upgrading previously closed roads and construction of purpose built roads on Proponent-owned properties as part of a coal transport route.
- Transportation of coal from the mine via a purpose built road between the project site and Shannon Harbour Road over the “Brentry” and “Stratford” properties, an upgraded section of Shannon Harbour Road, and existing sections of Hoad Lane, Blue Vale Road and the Kamilaroi Highway to the Whitehaven Coal Handling and Preparation Plant (CHPP) and rail Loading Facility at the Whitehaven Siding.
- The backloading of coarse and fine rejects from the Whitehaven CHPP to the Mine Site for disposal into the open cut mine void (via the same transport route).
- Final Rehabilitation of the areas of disturbance within the Mine Site following completion of the Project.

The mine is to be sub-divided into a construction, or development stage, and an operational, or production stage. **Table 2.1** summarises the operating hours and relevant conditions for construction, operations (excluding blasting), blasting, and product coal transportation.

**Table 2.1**  
**Approved Hours of Operation**

Activity	PA 06_0198 Condition	Monday to Friday	Saturday	Sunday
Construction	Condition 2(8)	6:00am to 8:00pm	6:00am to 8:00pm	6:00am to 5:00pm
Mining and Processing Activities	Condition 2(7)	24 hours	24 hours	-
Blasting*	Condition 3(13)	9:00am to 5:00pm	9:00am to 5:00pm	-
Product Coal Dispatch	Condition 3(40)	7:00am to 9:15pm	7:00am to 5:15pm	-
Maintenance	-	24 hours, 7 days a week		
* Excluding public holidays				



**Figure 2**  
Rocglen Coal Mine Layout

## 3 STATUTORY REQUIREMENTS

### 3.1 Approvals, Licences, Permits and Leases

All activities at or in association with the mine will be undertaken in accordance with the following approvals, licences, permits and leases which have been issued or are pending issue.

- Project Approval (PA) 06\_0198. Granted by the Minister for Planning under Section 75J of the *Environmental Planning and Assessment Act 1979* (see **Appendix 1**).
- The prescribed conditions of a mining lease issued by the Department of Primary Industries – Mineral Resources, under the *Mining Act 1992*. An application for a mining lease has been lodged and its grant is pending.
- The conditions of an approval under Section 134.1(h) of the *Coal Mines Regulation Act 1982* (relating to the commencement of operations).
- The conditions of an Environment Protection Licence issued under the *Protection of the Environment Operations Act 1997*. (An application for an EPL has been lodged with DECC and its issue is pending).
- Water licences issued by the Department of Natural Resources under the *Water Act 1912*.
- Road construction permits issued by Gunnedah Shire Council under Section 138 of the *Roads Act 1993*.
- A licence issued by the Work Cover Authority under the *Dangerous Goods Act 1975* (for explosives magazines and fuel storage).
- Construction and Occupation Certificates for proposed building works issued by Gunnedah Shire Council under Part 4A of the *Environmental Planning and Assessment Act 1979*.

### 3.2 Legislation

The key reference documents include the following Acts and their respective regulations;

- *Mining Act 1992*.
- *Dangerous Goods Act 1975*.
- *Coal Mine Health and Safety Regulation 2006*.
- *Occupational Health and Safety Act 2000*.
- *Environmental Planning and Assessment Act 1979*.
- *Protection of the Environment Operations Act 1997*.
- *National Parks and Wildlife Act 1974*.
- *Water Act 1912*.
- *Water Management Act 2000*.
- *Roads Act 1993*.
- *Local Government Act 1993*.

- *Contaminated Land Management Act 1997.*
- *Soil Conservation Act 1938.*
- *Threatened Species Conservation Act 1995.*

### **3.3 Policies and Guidelines for Mining**

The Following policies and guidelines issued by the Department of Primary Industries – Mineral Resources are, or are potentially, of relevance to the integrated Mine Management System for the Rocglen Coal Mine;

- EDP01 Environmental Policy for Exploration and Mining.
- EDP02 Exploration and Resource Assessment: Environmental Policy Implementation Principles.
- EDP03 Application and Approval of Mining: Environmental Policy Implementation Principles.
- EDP04 Mining Operations: Environmental Policy Implementation Principles.
- EDP05 Environmental Policy Implementation Principles: Rehabilitation and Mine Closure.
- EDP06 Compliance and Enforcement
- EDG01 Borehole Sealing Requirements on Land: Coal Exploration;
- EDG02 Borehole Sealing Requirements on Beds of Waterbodies: Coal Exploration.
- EDG03 Guidelines to the Mining, Rehabilitation and Environmental Management Process (version 3).
- EDG10 Exploration Surface Disturbance Notice.
- MDG1002 Environmental Management Plans and Guidelines for Annual Reporting for Coal Leases NSW.
- MDG1006 Spontaneous Combustion Management Code.
- MDG1010 Risk Management Handbook for the Mining Industry.
- MDG1025 Guideline for the Use of Explosives in Open Cut Coal Mines.

### **3.4 Miscellaneous Standards and Guidelines**

#### **3.4.1 Standards**

The following standards are, or are potentially, of relevance to the integrated Mine Management System for the Rocglen Coal Mine. 'AS' refers to an "Australian Standard", 'NZS' refers to "New Zealand Standard" and 'ISO' refers to the "International Standards Organisation".

- AS 2922 1987 Ambient Air – Guide for Siting of Sampling Units.
- AS 2923 1987 Ambient Air – Guide Horizontal Wind for Air Quality Application.

- AS 2601 – 2001 Demolition of Structures.
- AS 3580.10.1 2003 Methods for Sampling and Analysis of Ambient Air – Determination of Particulates – Deposited Matter – Gravimetric Method.
- AS 2187.2 1993 Explosives – Storage, Transport and Use – Use of Explosives.
- AS 4282 1997 – Control of Obtrusive Effects of Outdoor Lighting.
- AS 1940 – 2004 and Amendment 1 – 2004 The Storage and Handling of Flammable and Combustible Liquids.
- AS 1596 – 2002 The Storage and Handling of LP Gas.
- AS / NZS 3580.9.6 – 2003 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter PM10 high volume sampler with size-selective inlet – Gravimetric Method.
- AS / NZS 3580.9.3 – 2003 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – Total Suspended Particulate Matter (TSP) – High volume sampler gravimetric method.
- ISO 19011 – 2002 – Guidelines for Quality and/or Environmental Systems Auditing.

### 3.4.2 Guidelines

The following guidelines are, or are potentially, of relevance to the integrated Mine Management System for the Rocglen Coal Mine.

- NSW EPA Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (EPA, 1998).
- NSW EPA Approved Methods and Guidance for Modelling in Assessment of Air Pollutants in NSW (EPA, 2001).
- Guidelines for Best Practice Community Consultation in the NSW Mining and Extractive Industries (NSW Minerals Council, 1999).
- Managing Urban Stormwater: Soils and Construction (Department of Housing and Landcom, 2004).
- Managing Urban Stormwater: Council Handbook (EPA, 1997).
- NSW EPA Environmental Noise Management – NSW Industrial Noise Policy (EPA, 2000).
- Environmental Noise Control Manual (EPA, 1994).
- NSW EPA Environment Criteria for Road Traffic Noise (EPA, 1999).
- Australian Dangerous Goods Code 6th Edition.

## 4 ENVIRONMENTAL MANAGEMENT RESPONSIBILITY, PERSONNEL AND ROLES

WCMPL recognizes that the success of Rocglen Coal Mine's development from a corporate, neighbour, and broader community perspective will be enhanced through the achievement of the following objectives;

- (i) The development of a sense of project ownership, community membership and environmental responsibility by all WCMPL and contracted personnel.
- (ii) A recognition and acceptance of the physical, biological and social sensitivities of the site by all WCMPL and contracted personnel.
- (iii) Developing a culture of environmental awareness as an integral part of all planning and day-to-day activities. The awareness will be achieved through workforce and, to a lesser extent, community education.
- (iv) Maintaining an honest and open relationship with the community members and ensuring expeditious responses to any issues which may arise.

Ultimate responsibility for the achievement of the above objectives will lie with the General Manager – New Projects and Board of Directors of Whitehaven Coal Mining Pty Ltd. Overall site-based responsibility for all activities and all personnel on the mine site, including their compliance with all applicable laws, regulations, licences, approvals, the conditions of PA 06\_0198 and achievement of the desired environmental outcomes, will be the responsibility of the Mine Manager.

In addition to his overarching site-based responsibility, the Mine Manager will be specifically responsible for:

- ensuring all contractors, sub-contractors and service-personnel are appropriately qualified and/or licensed to undertake the required work and have a good environmental performance record;
- ensuring all operations are undertaken in accordance with relevant environmental legislation;
- providing the final sign-off and/or authorising distribution of, all environmental reports / management plans etc;
- workforce induction / training; and
- communication with statutory authorities and the community.

An Environmental Officer will also be appointed by WCMPL to monitor environmental performance on the mine site. The Environmental Officer will assist the Mine Manager and have the responsibility (and commensurate authority) to ensure all personnel conform to the requirements of the relevant environmental laws and regulations, consents, licences, approvals and environmental management systems and plans.

Specifically, the Environmental Officer will be responsible for:

- management / implementation of the various management plans;
- considering and advising on matters identified in the project approval and compliance with those conditions, and other environmental matters;



## **5 ENVIRONMENTAL PERFORMANCE – MANAGEMENT AND MONITORING**

### **5.1 Introduction**

The success of WCMPL's environmental performance on the mine site will be assessed by way of its satisfaction of the conditions of PA 06\_0198, Conditions of Authority appended to the mining lease, and conditions within the Environment Protection Licence (EPL), other approvals, licences or leases. This, in turn, will be measured by way of achievement of key performance outcomes and satisfaction of WCMPL's objectives with respect to the management of:

- Aboriginal and Cultural Heritage
- Flora and Fauna
- Erosion and Sediment Control
- Soil Resources
- Bushfire
- Surface and Groundwater
- Air Quality
- Noise
- Blasting
- Visibility
- Waste
- Transport
- Rehabilitation
- Socio-economic Matters

The assessment of performance, which may be quantitative and/or qualitative, will be reported in each relevant Annual Environmental Management Report (AEMR).

The following sub-sections identify WCMPL's objectives and key performance outcomes with respect to each of the above areas, with the key performance outcomes being used as a means by which WCMPL and others can assess progress towards the achievement of the nominated objectives. Specific monitoring programs, either those developed in satisfaction of the development consent or other leases, licences or approvals (or others developed independently by WCMPL), will be progressively appended to this document and updated as warranted.

## 5.2 Aboriginal and Cultural Heritage

Archaeological investigations of the mine site and transport route undertaken during the preparation of the Environmental Assessment (EA) identified seven Aboriginal Heritage sites (refer to Aboriginal and Cultural Heritage Management Plan). Four of these sites are scarred trees (Btree1, Btree2, ST1 and ST2), two of these sites are artefact scatters (B2 and B3), and the final site is an isolated artefact (B1). Of these sites the scarred trees ST1 and ST2 were identified along the transport route, with the remaining sites identified within the proposed mine site boundary.

The development of the mine as a whole will result in disturbance of three of the seven recorded sites, namely B1, B2 and B3. In line with the recommendations of the Aboriginal Groups consulted (Red Chief Local Aboriginal Land Council, Bigundi Biame Gunnedarr Traditional People, Min Min Aboriginal Corporation and Gunida Gunyah Aboriginal Corporation), and in accordance with the Project Approval, the artefacts are to be salvaged and relocated to the Cumbo Gunerah Keeping Place. The relocation of the artefacts will be undertaken following the grant of a Care Agreement under Section 85A of the *National Parks and Wildlife Act 1974*.

The remaining four sites will not be disturbed by the mine or the construction of the transport route. Protective and educational measures are to be undertaken to identify, and educate on the importance of these sites.

No sites of European heritage significance were identified in the vicinity of the mine site or the transport route.

**Table 5.1** presents the objectives of cultural heritage management along with the key performance outcomes

**Table 5.1**  
**Objectives and Key Performance Outcomes – Aboriginal and European Heritage**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
<b>ABORIGINAL HERITAGE</b>	
<p>(a) To protect and preserve the seven known Aboriginal heritage sites on the mine site and transport route.</p> <p>(b) To establish and maintain regular consultation with local Aboriginal community representatives.</p> <p>(c) To ensure development (i.e. soil disturbing) activities in culturally sensitive areas are monitored by local Aboriginal community representatives.</p> <p>(d) To establish procedures to manage any additional sites encountered during site development or mining in accordance with the requirements of DECC.</p> <p>(e) To ensure all personnel working on the mine site are aware of cultural sensitivities and the obligations, responsibilities and procedures under the NP&amp;WS Act 1974 and NSW Heritage Act 1977.</p> <p>(f) To develop contingency plans and reporting procedures which will be implemented in the event of damage to any site.</p> <p>(g) To prepare an Aboriginal Cultural Heritage Management Plan which addresses objectives (a) to (f) for the mine site and transport route.</p>	<p>(i) Nominated representatives of Local Aboriginal groups are invited to monitor soil disturbing activities. Salvage of sites B1, B2 and B3 in accordance with Section 90 Certificate.</p> <p>(ii) Aboriginal heritage sites Btree1 and Btree2 will be appropriately cordoned off and marked as “Culturally Sensitive Area – Aboriginal Heritage Site” both at the site and on all mine plans.</p> <p>(iii) Tenants of “Stratford” will be notified of the location and significance of Aboriginal heritage sites ST1 and ST2</p> <p>(iv) Joint development and successful implementation of a conservation program for Aboriginal cultural heritage.</p> <p>(v) Joint development and successful implementation of a consultation protocol.</p> <p>(vi) Implementation of jointly agreed measures to protect the Aboriginal heritage sites.</p> <p>(vii) Development and implementation of procedures for notification and avoidance / protection pending permission to proceed.</p> <p>(viii) Procedures incorporated as part of site induction and education program for all site workers and contractors.</p> <p>(ix) Plans prepared in consultation with DECC, local Aboriginal community representatives and approved by DG (DoP) prior to commencement of the development.</p>
<b>EUROPEAN HERITAGE</b>	
<p>(a) To protect and preserve any sites that may be identified on the mine site or transport route.</p>	<p>(i) Any identified sites are managed in accordance with the local Council and NSW and Commonwealth government agencies.</p>

### 5.3 Flora and Fauna

A total of eight vegetation communities were identified within the mine site and transport route by Geoff Cunningham Natural Resource Consultants Pty Ltd (GCNRC). One vegetation community within the mine site (Community 6 – Brigalow Community, 0.1ha) was considered a highly modified remnant of the Brigalow within the Brigalow Belt South, Nandewar and Darling Riverine Plains Bioregions Community, listed as an Endangered Ecological Community (EEC) under the NSW *Threatened Species and Conservation Act 1995* (TSC Act). The Northern Emplacement was designed to avoid disturbance to this community and a seven part test of significance determined there was likely to be no significant impact on this ECC.

No threatened flora species and no areas of critical habitat were identified on, nearby or associated with the mine site or the transport route.

Over the life of the mine, approximately 36.3ha of remnant and regenerating native vegetation will be disturbed. WCMPL has committed to adequately offset this disturbance by the rehabilitation of 84ha of the final landform to native vegetation through the planting of tubestock and direct seeding of the tree, shrub and grass species associated with all the communities to be disturbed. In addition, WCMPL has also committed to the long term conservation of an additional 51.3ha of remnant and regenerating native vegetation within, and adjacent to the mine site, as well as a further 60ha allocated from the Whitehaven Regional Biodiversity offset area located to the east of the project site.

Fauna surveys undertaken by Countrywide Ecological Service (CES) identified a total of 103 fauna species on the mine site and transport route. The survey recorded 6 amphibian species (all native), 59 bird species (58 native), 28 mammal species (21 native) and 10 reptile species (all native). Of the 103 species recorded, 8 were introduced species, including livestock and farm animals. Four of the 103 species recorded in the faunal surveys were identified to be a threatened species and are as follows;

- Grey Falcon, *Falco hypoleucos*
- Grey-crowned Babbler, *Pomatostomus temporalis*
- Gilberts Whistler, *Pachycephala inornata*
- Yellow-bellied Sheathtail Bat, *Saccolaimus flaviventris*

Seven part tests of significance were conducted for the threatened species recorded, or have the potential to occur within the project site. Considering proposed mitigation measures and offset strategy, it was concluded that the mine and transport route was unlikely to have any significant impact on the species considered.

**Table 5.2** presents the objectives of flora and fauna management along with the key performance outcomes.

**Table 5.2**  
**Objectives and Key Performance Outcomes – Flora and Fauna**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
<p>(a) To minimise potential impacts on threatened flora and fauna.</p> <p>(b) To minimise clearing of native vegetation.</p> <p>(c) To maximise re-establishment/ regeneration of native revegetation and utilisation of this by native fauna.</p> <p>(d) To develop protocols for removal / relocation of Threatened fauna identified in areas to be disturbed, prior to clearing.</p> <p>(e) To control noxious weeds and feral animals</p> <p>(f) To develop and implement a Landscape Management Plan which includes a Rehabilitation and Offset Management Plan, identifying how the project will minimise impacts on flora and fauna.</p>	<p>(i) Flora and Fauna management in accordance with commitments contained within the Environmental Assessment for the project.</p> <p>(ii) Preparation of a Landscape Management Plan to the satisfaction of the Director-General of the Department of Planning.</p> <p>(iii) Successful implementation of a Landscape Management Plan.</p> <p>(iv) Completion of pre-clearing inspections with results documented and all identified Threatened fauna relocated.</p> <p>(v) Re-site all hollow-bearing trees removed where practicable or provide replacement hollows in the form of an equivalent number of nest boxes on suitable trees to be retained</p> <p>(vi) Cleared trees (excluding those found to be hollow-bearing) broken into small sections and used as mulch.</p> <p>(vii) Native vegetation re-establishment / extension using locally collected seed.</p> <p>(viii) Areas of native vegetation not required for mining activities area avoided and included within the Biodiversity Offset Area</p> <p>(ix) Rehabilitation / Biodiversity Offset Strategy refinement on the basis of monitoring outcomes, site experience and improved technologies.</p> <p>(x) Efforts and progress in Flora and Fauna Management reported in AEMR.</p>

## 5.4 Soil Resources and Land Capability

Following the sampling of selected test pits over the mine site and transport route, conducted by GCNRC, four Soil Mapping Units (SMUs) were identified as described as follows;

- SMU 1 – identified on the upper slopes and crests of the mine site. These soils are about up to 110cm deep with a hard setting surface and medium levels of large surface stone.
- SMU 2 – identified on the lower slopes and drainage flats of the mine site and transport route. These soils are from 170cm to >290cm deep with the soil surface varying from hard setting to almost self mulching. Surface stone is usually absent, although sometimes some to much surface stone of between 5cm and 12cm is present.
- SMU 3 – found in the gilgai depressions and mounds of the mine site. The soil is up to 270cm in depth with a soft to self mulching surface with surface stone uncommon.
- SMU 4 – generally found mid-slope on the western side of the mine site. The soil is generally between 50cm and >250cm deep. The soil surface varies from occasionally hard setting to self mulching with stone usually absent.

Land capability for the mine site and transport route was identified to vary from Class III areas over the majority of the eastern half of the mine site, and sections of the transport route, to Class VI, found in a number of areas along the central drainage line and in the north western parts of the mine site.

**Table 5.3**  
**Objectives and Key Performance Outcomes – Soil Resources and Land Capability**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
<b>SOIL RESOURCES</b>	
<p>(a) To undertake soil stripping in accordance with Environmental Assessment recommendations.</p> <p>(b) To maximise recovery of soil for use in site rehabilitation activities.</p> <p>(c) To minimise soil stripping in advance of mining and maximise direct replacement of soils on the post mining landform, i.e. in preference to stockpiling, consistent with post mining vegetation and land use planning.</p> <p>(d) To ensure topsoil and subsoil stockpiles are managed to maximise retention of quality, including:</p> <ul style="list-style-type: none"> <li>- implementing weed control;</li> <li>- minimising erosion by locating stockpiles away from watercourses; and</li> <li>- vegetation of long-term stockpiles.</li> </ul> <p>(e) To document the progressive development, management and use of stockpiles, including reconciliation of quantities stockpiled, quantities available and future requirements.</p> <p>(f) To minimise erosion and sedimentation from soil stockpiles and/or areas stripped of soil.</p> <p>(g) To prepare an Erosion and Sediment Control Plan.</p>	<p>(i) Soil stripping is programmed to minimise exposed areas.</p> <p>(ii) All topsoil and subsoil materials suitable for use in rehabilitation activities are removed from development areas and stored or used appropriately.</p> <p>(iii) Soil stripping, stockpiling, and replacement volumes and depths are recorded and presented in AEMR.</p> <p>(iv) Reconciled soil quantities are maintained and are available for rehabilitation planning.</p> <p>(v) Adequate soil remains stockpiled at the cessation of mining to complete all required rehabilitation works.</p> <p>(vi) Soil is not eroded in its natural, stockpiled or replaced state.</p> <p>(vii) A successfully rehabilitated and long-term stable landform is established.</p> <p>(viii) Surface water diverted away from soil stockpile areas.</p> <p>(ix) Silt-stop fencing or similar placed immediately downslope of stockpiles where required.</p>
<b>LAND CAPABILITY</b>	
<p>(a) To maximise the area of land re-established to Class III lands, while recognising the emphasis is on native vegetation conservation.</p> <p>(b) Elsewhere, landform establishment, soil application and vegetation establishment consistent with Class V or Class VI land capabilities</p>	<p>(i) Stripping and stockpiling of soils in accordance with soil stripping recommendations.</p> <p>(ii) 152.6ha of the final landform on the mine site to be returned as Class III lands.</p> <p>(iii) Progressive development of and application of soils to the final landform in accordance with reconciled volumes and post-mining land capability classifications.</p> <p>(iv) Progress reported in each AEMR.</p>

## 5.5 Erosion and Sediment Control

Visual observations of the soils within the mine site and transport route indicate that, in their current state, they are generally stable except for some minor areas of sheet erosion on the slopes and some gully erosion in the main drainage lines. It is notable, however, that the land that has been cleared for agricultural activities is susceptible to, and has been subject to, previous soil erosion.

As part of WCMPL commitment to minimise erosion, a large number of diversion banks, waterway systems and sediment control structures will be constructed on the mine site to mitigate this. Further soil management procedures for the site will include the following.

- Subsoils in SMU1 below 40cm in depth will not be stripped where practicable.
- All soils to be handled as little as possible.
- Soils will not be stripped or replaced when wet.
- Driving of vehicles or machinery on stockpiles will be avoided at all times.
- Topsoil stockpiles will not exceed 2m in height, and subsoil stockpiles will not exceed 3m in height.
- Upslope water diversion banks and the perimeter amenity bund will direct overland surface water flow away from the soil stockpiles.
- Downslope sedimentation controls will be implemented as required until the surface of soil stockpiles is appropriately stabilised using groundcover species.
- Formed soil stockpiles will have a roughened surface to assist in runoff control and seed retention and germination.
- Soil stockpiles will be sown with stabilising groundcover species as soon as possible after placement.
- Stabilisation measures will be taken to minimise loss of soil material from stockpiles prior to the establishment of ground-cover. Such measures would include silt fences or straw bales.

Erosion and sediment control management of the mine site and transport route will build upon the success of past proven land, erosion and sediment control management practices and be documented in an Erosion and Sediment Control Plan which will form part of the Site Water Management Plan.

It will be WCMPL's desire to utilise local Department of Lands (Soil Services) personnel and experience in the design, construction and maintenance of required works where practicable.

**Table 5.4** presents the objectives and key performance outcomes for erosion and sediment control.

**Table 5.4**  
**Objectives and Key Performance Outcomes – Erosion and Sediment Control**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
<p>(a) To minimise soil erosion and discharge of sediment and other pollutants onto undisturbed land, and/or to watercourses and water bodies.</p> <p>(b) To effectively manage the topsoil for subsequent use in rehabilitation activities and to minimise the loss of topsoil from areas disturbed by mining and mining-related activities.</p> <p>(c) To install appropriate water management controls to assist the achievement of the above.</p>	<b>Development and Operational Phases</b>
	<p>(i) Disturbance at any one time is restricted to areas shown in the current Mining Operations Plan (MOP).</p> <p>(ii) Erosion and Sediment Control Plan implementation with documented refinements on the basis of operational experience.</p> <p>(iii) The Erosion and Sediment Control Plan is consistent with the document entitled “Managing Urban Stormwater: Soils and Construction” manual (Landcom, 2004).</p> <p>(iv) The water quality of any water discharged from the mine site is within acceptable limits (as identified in the Site Water Management Plan).</p> <p>(v) There is no increase in erosion / siltation of downstream watercourses.</p> <p>(vi) There is no active erosion observable on rehabilitated areas or within the Biodiversity Offset Area.</p> <p>(vii) Maintenance and/or establishment of vegetative cover on natural or disturbed areas are maximised.</p> <p>(viii) Achievements and progress reported in each AEMR.</p>
	<b>Decommissioning</b>
<p>(i) Erosion control systems remain in place.</p> <p>(ii) The water quality measured in watercourses and water bodies remains within acceptable limits.</p> <p>(iii) Previously disturbed areas remain stable with an effective vegetation cover.</p>	

## 5.6 Surface and Groundwater

### 5.6.1 Surface Water

The local drainage network in the vicinity of the mine site comprises of Driggle Draggie Creek and an un-named ephemeral drainage channel. Approximately 59ha of the mine site drains in a generally north-westerly direction into the headwaters of Driggle Draggie Creek, and the remaining 307ha of the mine site and the transport route drain into the headwaters of an un-named ephemeral and often ill-defined drainage line which grades in a southerly and south westerly direction towards the Namoi River (10km west of the mine site).

Site surface water management will be designed to separate “clean” and “dirty” flows and, as far as practical, avoid the necessity to discharge water from the mine site. An important objective of the site surface water management will be the avoidance/minimisation of “contaminated” flows.

Whilst it is the intention of WCMPL to capture all dirty and contaminated water flowing on the mine site for use in dust suppression activities, discharge of water from the site may occur during or following periods of high rainfall. In the event a discharge occurs, discharged water would be sampled within 24 hours of the discharge event and assessed against the criteria defined in the Mine’s EPL. Contingency measures in the event of an exceedance are described in the site water management plan.

### 5.6.2 Groundwater

Based on the known stratigraphic sequence and measured standing water levels of the mine site, RCA, whom conducted the groundwater assessment, has determined that groundwater is contained in the following strata below the mine site;

- Overburden – groundwater in the overburden is limited and the layer is dry below and immediately surrounding the mine site
- Alluvium – the alluvial aquifer is not a significant water storage due to the limited extent and depth
- Coal Seams – the main water bearing zones or aquifers occur in the three identified coal seams
- Interburden Between Coal Seams – these have lower storage and hydraulic conductivity when compared to the coal seams

A Hydrogeological model for the mine site was developed by RCA as part of the initial environmental assessment for the development. The model identified groundwater flows within the strata as flowing from east to west following the regional topographic fall from the Kelvin Range in the east to the Namoi River in the west. The depth of groundwater within the project site is relatively constant at 35 metres.

Drawdown in the regional water table predicted by the groundwater model at the completion of the Mine is expected at 11m at the project site boundary, and down to 2m or less within 5km of the limit of open cut mining. In considering those properties that are project related, it is considered that the only non-project related bores that may be affected by the mining operation are located on the “Surrey” and “Carlton” properties. Monitoring of groundwater resources will be undertaken to verify the predictions in the model and actions initiated in accordance with the prescription in the Site Water Management Plan.

**Table 5.5** presents the objectives and key performance outcomes for surface and groundwater.

**Table 5.5**  
**Objectives and Key Performance Outcomes – Surface and Groundwater**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
<p>(a) To protect the quality of surface and groundwater resources.</p> <p>(b) To ensure groundwater availability to, or use by, local landowners is not compromised and that mechanisms are in place for the amelioration and/or compensation to account for any adverse impacts.</p> <p>(c) To ensure that appropriate water control systems are established prior to mining-related disturbance and extended with the progression of the mine.</p> <p>(d) To effectively separate “clean” and “dirty” flows.</p> <p>(e) To minimise the generation of “dirty” and potentially “contaminated” water and to maintain effective measures for their control and isolation respectively.</p> <p>(f) To ensure that “dirty” water is re-used where practicable for dust suppression purposes.</p> <p>(g) To limit “clean” water collection to WCMPL’s harvestable right.</p> <p>(h) To ensure any “contaminated” water is managed to minimise the volume of water affected, contain its movement and minimise the risk of downstream or off-site contamination.</p> <p>(i) To ensure that any discharges of water comply with all relevant legislation and licences.</p> <p>(j) To regularly assess, amend and document the effectiveness of the site’s water management controls.</p> <p>(k) To prepare a strategy for the decommissioning of water management structures.</p> <p>(l) To prepare, implement and review as necessary a Site Water Management Plan, including a site water balance, surface and groundwater monitoring programs, and an Erosion and Sediment Control Plan.</p> <p>(m) Review the groundwater model as presented in the Environmental Assessment within 12 months of the commencement of mining</p>	<p>(i) All activities are undertaken in accordance with the approved Site Water Management Plan, including the following.</p> <ul style="list-style-type: none"> <li>– Appropriate water control systems are in place.</li> <li>– Effective surface water monitoring programs are in place which enable water quality assessments in water storages, local surface water flows, and discharges.</li> <li>– The quality of water within Driggle Draggie Creek and the un-named ephemeral is not adversely impacted and remains within the water quality criteria and satisfies the objectives noted in the SWMP.</li> <li>– “Clean” and “dirty” waters (including contaminated waters) are effectively segregated.</li> <li>– Waters “contaminated” or potentially “contaminated” with hydrocarbons are collected and treated in an appropriate manner.</li> <li>– The quality of the groundwater resource is not adversely affected.</li> <li>– The availability of groundwater to local users is not reduced and/or remains within predicted levels.</li> <li>– Monitoring programs are in place to establish natural fluctuations and any mine-induced changes in groundwater level and quality to be assessed.</li> <li>– Surface and groundwater monitoring results and observable trends are assessed annually and reported in the AEMR.</li> <li>– Surface and Groundwater response plan is in place or established if / when negative groundwater level and chemical fluctuations exceed natural variability.</li> <li>– The site water balance is reviewed annually to assess actual as opposed to predicted system inflows and outflows and reported in the AEMR.</li> <li>– Effective water controls remain in place on cessation of mining and neither groundwater nor surface water quality is reduced.</li> <li>– Ground and surface water monitoring results continue to comply with relevant criteria post mining.</li> </ul> <p>(ii) All monitoring results, general observations and changes to water management are reported in each AEMR.</p>

## 5.7 Air Quality

The existing air quality of the mine site is consistent with other rural areas where the principal contributors are dust from agricultural activities and/or exposures, seed, pollen and smoke from domestic activity and exhaust fumes from local roads.

Mining operations will inevitably increase the extent of dust generation and, by virtue of the use of diesel fuel in mining and processing equipment and in rail transportation of coal, also result in increased emissions of NO<sub>2</sub>, SO<sub>2</sub> and greenhouse gases.

Whilst modelling of air quality impacts predicts only minor increases in the extent of dust generation by the mine, and well within DECC criteria, appropriate controls will still be implemented to ensure satisfaction of both incremental and total criteria for deposited dust and PM<sub>10</sub> particulates, and that exhaust gas emissions are minimised. The Air Quality Monitoring Program for the mine identifies the strategies and monitoring to be adopted to maintain compliance with air quality criteria.

Table 5.6 presents the objectives and key performance outcomes for air quality.

**Table 5.6**  
**Objectives and Key Performance Outcomes – Air Quality**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
<p>(a) To comply with statutory requirements.</p> <p>(b) To minimise air quality impacts on local residents and land users.</p> <p>(c) Visible air pollution, odour and fume emissions are minimised.</p> <p>(d) To ensure the results of all air quality monitoring are within the following limits.</p> <ul style="list-style-type: none"> <li>– Mean annual TSP ≤ 90 µg/m<sup>3</sup>.</li> <li>– 24 hour maximum PM<sub>10</sub> ≤ 50 µg/m<sup>3</sup>.</li> <li>– Annual average PM<sub>10</sub> ≤ 30 µg/m<sup>3</sup>.</li> <li>– Mean annual increase in dust deposition ≤ 2.0 g/m<sup>2</sup>/month.</li> <li>– Mean maximum dust deposition ≤ 4.0 g/m<sup>2</sup>/month.</li> </ul> <p>(e) To minimise dust impacts on motorists on local roads.</p> <p>(f) To keep the local residents and community informed and respond quickly to any issues or complaints raised.</p> <p>(g) To establish an effective meteorological monitoring system.</p> <p>(h) Greenhouse gas emissions are minimised consistent with operational practicalities.</p>	<p>(i) Air quality management in accordance with commitments contained within the Environmental Assessment for the mine.</p> <p>(ii) A network of environmental monitoring stations is in place and utilised to manage and/or assess operational performance.</p> <p>(iii) Activities that generate dust are managed such that licence and approval limits are met.</p> <p>(iv) Sufficient water is available for suppression of dust during construction and operational stages.</p> <p>(v) Disturbance of land is minimised consistent with the progress of the development.</p> <p>(vi) Measures such as water application and progressive rehabilitation are in place to reduce the potential for wind erosion.</p> <p>(vii) Monitoring is consistent with the mine's Air Quality Monitoring Program and undertaken in accordance with the relevant Australian Standards.</p> <p>(viii) Greenhouse gas emission reduction investigations, outcomes and abatement measures as well as energy savings are identified in a Greenhouse and Energy Efficiency Plan and reported in AEMR.</p> <p>(ix) Monitoring data provided to landowners / residents where air quality criteria are not satisfied.</p> <p>(x) Results and analyses of all air quality monitoring</p>

	<p>are included in each AEMR.</p> <p>(xi) Procedures are in place for the management of Blasting Activities.</p> <p>(xii) Issues arising are managed in accordance with the Air Quality Monitoring Protocol.</p>
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## 5.8 Noise

The existing sources of noise in the vicinity of the mine are typical of a rural environment and include:

- farm equipment such as tractors and cultivators;
- insect noise such as cicadas, especially during spring and summer months;
- livestock and other farm and native animals;
- wind through vegetation, and;
- through traffic on the local road network.

The adopted noise criteria for the Rocglen Coal Mine are as follows.

**Table 5.7  
Noise Impact Assessment Criteria**

	Location	Day $L_{Aeq}(15 \text{ minute})$	Evening $L_{Aeq}(15 \text{ minute})$	Night	
				$L_{Aeq}(15 \text{ minute})$	$L_{A1}(1 \text{ minute})$
<b>Construction Noise</b>	Any privately owned residences	35	35	35	45
<b>Operations Noise</b>	Any privately owned residences	35	35	35	45
	Location	Day $L_{Aeq}(1 \text{ hour})$	Evening $L_{Aeq}(1 \text{ hour})$	Night $L_{Aeq}(1 \text{ hour})$	
<b>Road Traffic Noise</b>	Any residence on privately owned land	60	60	50	

Note: Limits as per Conditions 3(7) and 3(8) of PA 06\_0198

A range of controls (as identified in the Noise Monitoring Program) will be implemented to maintain construction, operational and road traffic noise levels within the criteria adopted, with monitoring to be undertaken to verify compliance with the above DECC criteria.

**Table 5.8** presents the objectives and key performance outcomes for noise.

**Table 5.8**  
**Objectives and Key Performance Outcomes – Noise**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
<p>(a) To manage all stages of the mine to minimise noise and ensure emissions satisfy the nominated criteria under all nominated conditions.</p> <p>(b) To prepare a Noise Monitoring Program, including a Noise Monitoring Protocol, and a Road Noise Management Plan.</p> <p>(c) To keep the local community and regulators informed and to respond quickly and effectively to issues and complaints in accordance with the Noise Monitoring Protocol and Road Noise Management Plan.</p> <p>(d) To monitor construction and operational noise in accordance with the Noise Monitoring Program and traffic noise with the Road Noise Management Plan to ensure regulatory compliance.</p>	<p>(i) Noise management in accordance with Environmental Assessment recommendations.</p> <p>(ii) All earthmoving/mining equipment to comply with the sound power levels used in the Environmental Assessment.</p> <p>(iii) Monitoring undertaken in accordance with the Noise Monitoring Program and Road Noise Management Plan.</p> <p>(iv) Noise emissions are compliant with EPL and <i>Conditions 3(7) and 3(8)</i> of PA 06_0198.</p> <p>(v) Noise emissions are verified by monitoring to comply with criteria.</p> <p>(vi) The receipt of valid noise-related complaints is eliminated or minimised.</p> <p>(vii) Monitoring results are included in the AEMR.</p> <p>(viii) Any issues arising are managed in accordance with the complaints management section of the Noise Monitoring Protocol and Road Noise Management Plan.</p> <p>(ix) DECC and DG (DoP) acceptance of Noise Monitoring Program and Road Noise Management Plan</p> <p>(x) Activities are undertaken in compliance with meteorological limitations in order to minimise intrusive noise.</p> <p>(xi) All roads comprising the transport route are sealed and regularly maintained under a contribution plan with GSC</p> <p>(xii) Strict adherence to hours of operations, including transport activities.</p> <p>(xiii) Restricted use of engine brakes.</p> <p>(xiv) Open dialogue with neighbours and the local community to ensure community satisfaction.</p> <p>(xv) Continuous improvement program to investigate ways to minimise noise from the mine and report on these initiatives in the AEMR.</p>

## 5.9 Blasting

All blasts at the mine will be designed to satisfy environmental and safety criteria with respect to airblast overpressure and ground vibration, initially using conservative predictive models and subsequently using site laws developed and refined on the basis of operational experience.

For all blasts within 500m of Wean Road, the road will be closed with blast notice boards updated at least 24 hours prior to each blast.

Monitoring of all blasts will be undertaken in accordance with the Blasting Monitoring Program and commitments made by WCMPL in the *Environmental Assessment*.

**Table 5.9** presents the objectives and key performance outcomes for blasting.

**Table 5.9**  
**Objectives and Key Performance Outcomes – Blasting**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
<p>(a) To manage blasting operations so as to:</p> <ul style="list-style-type: none"> <li>- minimise airblast and ground vibration consistent with operational requirements, and ensure all blasts are designed, and implemented to ensure compliance with statutory criteria.</li> <li>- cause no damage to structures / buildings / infrastructure / services.</li> <li>- pose no risk to public safety or livestock.</li> </ul> <p>(b) To keep the community informed of the planned dates and times of impending blasts.</p> <p>(c) To keep the community and regulators informed on blasting outcomes and respond quickly and effectively to all issues and/or complaints in accordance with a documented protocol.</p> <p>(d) To minimise disruption to the public.</p> <p>(e) All blasts are monitored at locations agreed with DECC.</p> <p>(f) To provide the opportunity for property inspections prior to the commencement of blasting and on receipt of complaint over structural damage claimed to be caused by the mine blasting operations.</p>	<p>(i) At least 2 months prior to carrying out any blasting at the development, all potentially affected landowners will be informed of their entitlement to a property inspection.</p> <p>(ii) Blasting hotline (or alternative approved method) in place, updated as necessary and functional.</p> <p>(iii) If any landowner within 2 kilometres of blasting operations at the development, or otherwise nominated by the DG (DoP), claims damage to property as a result of blasting at the development, NCPL will within 2 months of receiving this request:</p> <ul style="list-style-type: none"> <li>(a) commission a suitably qualified person to investigate the claim; and</li> <li>(b) give the landowner a copy of the property investigation report.</li> </ul> <p>(iv) An effective pre-blasting notification program in place for local landowners / residents.</p> <p>(v) Complaints resulting from blasts are minimal or non-existent.</p> <p>(vi) Procedures in place to respond to and assess any claims with respect to blasting induced damages.</p> <p>(vii) Any complaints regarding blasting-induced damage are assessed in a timely manner.</p> <p>(viii) All blasts are monitored in accordance with an approved Blasting Monitoring Program, with any blast exceedance reported to DoP and DECC.</p> <p>(ix) Blast monitoring results are presented in each AEMR.</p> <p>(x) Details of all blasts are recorded and none occur outside the approved hours of 9:00am to 5:00pm Monday to Saturday or more than twice on any given day (unless approved by DECC).</p>

## 5.10 Waste

The mine will generate both production wastes, i.e. mined rock, potentially contaminated water from the maintenance workshop etc., and non-production wastes such as domestic-type wastes, routine maintenance consumables, oils and grease, and sewage. The mine will also accept reject generated by coal processing at the Whitehaven CHPP and back loaded to the mine site

The mined rock will be utilised in the construction of the perimeter amenity bund and to surface the ROM and product stockpile pads to create an all-weather working surface. Potentially contaminated water from the workshop will be collected in the oil/water separator and regularly removed from site by a licensed contractor. Non production wastes will be removed from site by licensed contractors and disposed of in an appropriate manner. This will include placement of bins at the various buildings for daily collection and placement in larger waste storage receptacles adjacent to the workshop area for collection as required. Separate collection systems will be employed for recyclable materials such as paper and cardboard, cans, and ferrous and non-ferrous metals each of which would be collected at appropriate intervals.

Adequate toilet and ablution facilities will be installed on the mine site and would incorporate one or more self irrigating eco-cycle septic sewage systems approved by Gunnedah Shire Council. Treated septic system water will be irrigated on landscaped areas in accordance with licence conditions imposed by the DECC.

The Waste Management Strategy for the mine, although not required under PA 06\_0198, details the actions proposed for minimising waste generation across the mine site.

**Table 5.10** presents the objectives and key performance outcomes for non-production waste management.

**Table 5.10**  
**Objectives and Key Performance Outcomes – Non-production Waste Management**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
(a) To minimise waste production.	(i) A program to encourage waste minimisation is in place.
(b) To identify waste types and quantities on site.	(ii) The types and quantities of wastes produced on site are identified and recorded.
(c) Coarse reject placed within the mine void does not adversely affect surface water or groundwater	(iii) A waste tracking system is in place.
(d) To identify potential re-use or recycling opportunities and ensure appropriate handling and collection procedures are in place.	(iv) Recyclable wastes are segregated. (v) Waste materials / recyclables are retained in designated storage areas prior to removal from site.
(e) To investigate methods to minimise waste generated by the mine and implement reasonable and feasible measures to minimise waste.	(vi) The site is kept in a clean and tidy condition. (vii) Wastes are stored in a manner and for periods such that vermin infiltration, odour etc are not issues.
(f) To ensure the disposal of wastes conforms to applicable guidelines or licences.	(viii) Storage areas are designed and maintained to contain spillages.
(g) To ensure areas where fuels, oils or other potential contaminants are stored are appropriately bundled.	(ix) Wastes are disposed of to the satisfaction of DECC and Gunnedah Shire Council (as

<p>(h) To ensure sewage disposal does not degrade the waste water utilisation area.</p>	<p>appropriate).</p> <p>(x) The physical and chemical parameters of reject from the Whitehaven CHPP are periodically analysed and those properties remain within limits that will not adversely affect soil and water resources</p> <p>(xi) The reject is placed in layers &lt;15m and covered by &gt;3m of inert material</p> <p>(xii) Waste water utilisation area is not degraded (as verified by monitoring).</p> <p>(xiii) Sprays from waste water application do not drift beyond the boundary of the waste water utilisation area (as verified by monitoring).</p> <p>(xiv) Surface runoff from the waste water utilisation area is collected by the site water management system.</p> <p>(xv) Waste management and minimisation are reported in the AEMR.</p>
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### 5.11 Visibility

Views of the various activities and/or features of the mine site will be possible from local and distant vantage points such a elevated adjacent residences, the closest being “Costa Vale” at 2.7km away.

Various visual control measures will be implemented to minimise visual impacts of the mine, and will include the following.

- Progressive rehabilitation to minimise any cleared or non-vegetated areas
- Overburden emplacements have been designed to, as much as possible, replicate existing topographic features
- Minimise land disturbance/clearing in advance of mining
- Implementation of air quality controls
- Maintaining the mine and other areas of disturbance in a clean and tidy condition at all times
- In addition to the natural screening provided by the roadside vegetation of local road easements, a roadside stockpile will be established along the eastern boundary.

**Table 5.11** presents the objectives and key performance outcomes for visibility.

**Table 5.11**  
**Objectives and Key Performance Outcomes – Visibility**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
<p>(a) To design and construct the mine infrastructure in a manner that minimises visual contrasts.</p> <p>(b) To minimise disturbance in advance of mining consistent with operational requirements.</p> <p>(c) To maintain the site in a clean and tidy condition.</p> <p>(d) To minimise dust generation and deposition.</p> <p>(e) To use screens / bunds to minimise the visibility of equipment and impact of lights on mobile equipment.</p> <p>(f) To position temporary and permanent lighting installations to avoid spillage of light directly towards residences or roads.</p> <p>(g) All practical measures to mitigate off-site lighting impacts from the mine site are taken, especially in relation to the Siding Springs Dark Skies Region.</p> <p>(h) To ensure that all external lighting associated with the mine complies with Australian Standard AS4282 1997 – Control of Obtrusive Effects of Outdoor Lighting, i.e. wherever possible, all mine lighting is directed downward.</p> <p>(i) Progressive shaping and revegetation of the post mining landform, including partial rehabilitation of temporarily inactive areas and proposed topsoil storage stockpiles.</p> <p>(j) To create a post-mining landform which appears as an extension of the existing landform.</p> <p>(k) To investigate methods of reducing the impact of the development on residences within 2km of the mine (on request).</p>	<p>(i) Visual screens are established in advance of mining activities.</p> <p>(ii) Overburden emplacement areas and other areas of disturbance are progressively shaped and revegetated in accordance with the MOP.</p> <p>(iii) The mine site is organised, clean and tidy at all times.</p> <p>(iv) The air quality objectives of Section 5.7 are achieved</p> <p>(v) Equipment / facility lighting obscured or directed away from residences / roadways.</p> <p>(vi) Procedures are in place to record and respond to any complaints relating to lighting and/or visual amenity.</p> <p>(vii) General performance is reported in AEMR.</p> <p>(viii) Within 2 months of receiving a written request to investigate methods of reducing the visual impact (when the mine site activities are viewed from residences within 2km), the following steps are taken.</p> <ul style="list-style-type: none"> <li>– Consultation undertaken with the landowner to identify mutually acceptable mitigation measures.</li> <li>– In the event an agreement cannot be reached on suitable mitigation measures, a suitably qualified person whose appointment has been approved by the DG (DoP), has been commissioned to investigate ways to minimise the visual impacts from the development on the landowner’s dwelling.</li> <li>– The landowner has been provided with a copy of the visual impact mitigation report.</li> </ul>

## 5.12 Transport

Coal will be transported from the mine site to the Whitehaven CHPP for washing and/or despatch to export markets via rail to the Port of Newcastle. The transportation of coal from the mine site will be integrated with the overall delivery of coal from Whitehaven Coal Limited mines supplying coal to the Whitehaven CHPP and coal loading facility.

Coarse rejects generated through the Whitehaven CHPP as a result of washing coal will be back-loaded from the Whitehaven CHPP for placement in the open cut area, subject to an approval issued for reject emplacement by the DPI. Alternatively, these will be transported to the North Cut / Melville underground area of the former Gunnedah Colliery, an existing approved reject emplacement area, for disposal. The use of back-loading will result in no additional traffic being generated by the transportation of the rejects back to the mine site.

**Table 5.12** presents the objectives and key performance outcomes for product and reject transportation.

**Table 5.12**  
**Objectives and Key Performance Outcomes – Product Coal and Reject Transportation**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
<p>(a) To comply with statutory criteria with respect to noise and air quality.</p> <p>(b) To comply with the project approval and environment protection licence.</p> <p>(c) To keep the local community informed and to respond quickly and effectively to issues and complaints.</p> <p>(d) Deliveries undertaken in accordance with RTA and Council restrictions</p> <p>(e) To implement safeguards to minimise impacts on all road users</p> <p>(f) To operate the transport of coal to and back-loading of reject from the Whitehaven CHPP in a manner that:</p> <ul style="list-style-type: none"> <li>– Ensures the safety of other road users, local landholders and their livestock;</li> <li>– Complies with the criteria adopted for noise and air quality;</li> <li>– Minimises impacts on residences or properties adjacent to the transport route;</li> <li>– Minimises impact on native fauna, and;</li> <li>– Minimises the disruption to natural surface water flows</li> </ul> <p>(g) To maintain a covered load policy for all trucks carting material to and from the mine.</p>	<p>(i) Compliance with air and noise criteria verified by monitoring.</p> <p>(ii) Landowners/residents contacted prior to any upgrading works</p> <p>(iii) Routine liaison with local residents to ensure their satisfaction with all aspects of the transportation of coal and mine related materials.</p> <p>(iv) Restrict coal and reject despatch hours to 7:00am to 9:15pm Monday to Friday and 7:00am to 5:15pm Saturdays and no time on Sundays and public holidays</p> <p>(v) Communication maintained between truck drivers and local school bus drivers</p> <p>(vi) Applying a covered load policy to all transport trucks</p> <p>(vii) Ensuring all transport trucks are well maintained, roadworthy and drivers act in courteous manner.</p> <p>(viii) Stop signs and traffic signals along the transport route are strictly adhered to.</p> <p>(ix) Contribute to the maintenance of all public roads affected by the proposal in accordance with an agreement with GSC.</p> <p>(x) Installation of a fence the length of the transport route (on private lands) prior to commencement of transport from the mine</p> <p>(xi) Performance reported in AEMR.</p>

## 5.13 Rehabilitation

WCMPL is committed to ensuring progressive rehabilitation of areas of disturbance (and sequencing activities to enable earliest revegetation consistent with operational requirements) within the Pit Top Area in order to minimise the areas of exposure and hence potential air quality impacts, reduce the potential for erosion and sedimentation, and reduce the visibility of mining operations from local residences or publicly available vantage points.

Rehabilitation of disturbed areas will involve the reprofiling of the landform, soil application consistent with the volume of materials available and the desired post-mining land capability and land use, installation of appropriate drainage controls and establishment of areas of native vegetation and pasture.

As a biodiversity offset for the vegetation and habitat removal undertaken to permit mining to progress, rehabilitation activities will also extend to the re-establishment of native vegetation in additional areas through grazing exclusion and planting programs, or alternative programs that are agreed with the DG (DoP) and DECC.

In the long term, on mine completion, the rehabilitation objective will be to provide a low maintenance, stable and safe landform that blends in with the surrounding topography and which maximises the return of agricultural land with agricultural land suitability comparable to the existing levels. The Landscape Management Plan for the mine will identify the strategies to be implemented in relation to overall rehabilitation of the site.

**Table 5.13** presents the objectives and key performance outcomes for rehabilitation.

**Table 5.13  
Objectives and Key Performance Outcomes – Rehabilitation**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
<p><b>Short-term</b></p> <p>(a) To minimise clearing / vegetation disturbance consistent with operational requirements.</p> <p>(b) To schedule operations including overburden/interburden emplacement and shaping and revegetation to minimise visual exposure</p> <p>(c) To rehabilitate areas of disturbance no longer required for mining-related operations in accordance with the approved Rehabilitation Management Plan.</p> <p>(d) To apply soil (topsoil / subsoil) to the final landform based on material availability and post-mining land use.</p> <p>(e) To stabilise all earthworks, drainage lines and disturbed areas in order to minimise erosion and sedimentation.</p> <p>(f) To control vermin, feral animals and noxious weeds.</p>	<p>(i) Clearing / vegetation disturbance and rehabilitation progress consistent with the MOP and Rehabilitation Management Plan.</p> <p>(ii) Successful establishment of vegetation on the final landform consistent with the MOP.</p> <p>(iii) Progressive achievement of landform and land use objectives.</p> <p>(iv) Achievement of the objectives with respect to flora and fauna, soil resources and land capability, erosion and sediment control, and air quality.</p> <p>(v) 84.4ha of the final landform to be designated for long-term nature conservation</p> <p>(vi) Exclusion of agriculture from, and the long-term conservation of:</p> <ul style="list-style-type: none"> <li>– 42.2ha of remnant Ironbark – White Box vegetation in NW corner of mine site</li> <li>– Establishment of habitat corridors between a) Wean Rd and offset area along northern site boundary, b) within a fenced reserve in Jaeger Lane, and c) along the southern boundary of the mine site</li> </ul>
<p><b>Long-term</b></p> <p>(g) Continuation and/or restoration of biodiversity and ecological integrity of areas affected by mining or agriculture within the mining lease.</p> <p>(h) To establish a low maintenance, geotechnically stable final landform commensurate with agricultural and nature conservation land uses.</p> <p>(i) To blend the created landforms to appear as a natural extension with the surrounding landforms.</p> <p>(j) To provide habitat for fauna and corridors for fauna movement within the final landform.</p> <p>(k) To develop and implement a biodiversity offset strategy</p> <p>(l) To monitor rehabilitation success in terms of physical and biological parameters.</p>	<p>(vii) Incorporation of the Whitehaven Regional Biodiversity Offset Strategy, providing for the long-term conservation of 60ha of WCMPL owned land offset against the Rocglen development</p> <p>(viii) Rehabilitation performance / success which enables lease relinquishment.</p> <p>(ix) Verification of achievements through monitoring.</p> <p>(x) A legally binding arrangement is in place to secure the long-term security of the biodiversity offset by the end of 2010.</p> <p>(xi) Performance reported in AEMR.</p>

## 5.14 Fire Management

WCMPL will ensure that sufficient and appropriate fire fighting equipment and resources are maintained on the mine site. This will be achieved through the active consultation with the Rural Fire Service and development of a Bushfire Management Strategy within the required Rehabilitation Management Plan.

The mine site is located in a rural environment within proximity to Vickery State Forest. In this regard control and prevention of the spread of fire will be paramount. Any required fire control activities will be undertaken in accordance with the requirements of the Rural Fire Service.

**Table 5.14** presents the objectives and key performance outcomes for fire management.

**Table 5.14  
 Objectives and Key Performance Outcomes – Fire Management**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
(a) To ensure the mine is suitably equipped to respond to any fires.	(i) Bushfire Management Strategy in place with up-to-date contacts.
(b) To maintain fire protection works on the lease to the satisfaction of Council and the Rural Fire Service.	(ii) Hazard reduction measures undertaken in accordance with the Plan.
(c) To provide fire management training to site personnel.	(iii) Spontaneous Combustion Management Plan in place.
(d) To manage exposed coal seams and stockpiles to prevent spontaneous combustion.	(iv) Any fires initiated are quickly and efficiently extinguished.
(e) To prepare a Bushfire Management Strategy as a component of the Rehabilitation Management Plan and update it as necessary.	(v) Functional fire fighting equipment is available at all times.

## 5.15 Socio-economic Aspects

The development of the mine will have a significant positive impact on the economic activity and productivity both from a local (Boggabri and Gunnedah communities) and regional perspective, achieved through the direct and indirect employment generated, mine expenditure on services and supplies and the mine's support for local community services and projects. Although some negative socio-economic outcomes may also result, e.g. loss of agricultural production capacity (primarily temporary), perceptions with respect to property values and increased traffic, they will be outweighed by the benefits.

**Table 5.15** presents the objectives and key performance outcomes for socio-economic aspects.

**Table 5.15**  
**Objectives and Key Performance Outcomes – Socio-economic Aspects**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
(a) To provide the training required to ensure sufficient numbers of qualified and trained local personnel are available for employment.	(i) The expansion of local skill base and a progressive increase in local employment at the mine
(b) To achieve social and intergenerational equity.	(ii) Increased economic activity for local businesses.
(c) To provide employment for suitably qualified (or trained), experienced and/or trained local district residents including members of the local Aboriginal community.	(iii) Community acceptance of the mine as a valued land user and community member.
(d) To support local service and supply industries.	(iv) Actual or perceived negative socio-economic outcomes and complaints are minimised.
(e) To support local community services and projects.	(v) Strong and successful community consultation / interaction / information program.
(f) To develop and promote a Community Consultative Committee.	(vi) Open door policy enabling community / company interaction.
(g) To provide a net benefit to the communities of Boggabri and Gunnedah.	(vii) Local induction kit provided to new workers including contact details for community groups and services.
	(viii) Socio-economic performance and the achievements with respect to the above performance indicators are reported in the AEMR.
	(ix) Assistance provided in identifying job opportunities for the partners of potential employees.

## 5.16 Cumulative Impact Management

The project site location is in a general rural area that has not been subject to major development, albeit the Canyon and Tarrawonga Open Cut Coal Mines are located further to the west. As a consequence, current land use pertains predominantly to grazing, agriculture and forestry.

Surface disturbance activities at the site will impact on current agricultural use of the project site. However this impact is considered of a minor nature in respect of the adjacent ongoing agricultural activity, and will be of a temporary nature as rehabilitation targets require the return of 152.6ha to class III land capability.

WCMPL recognises that the ongoing productive capacity of surrounding properties and understands the potential for cumulative impact of agricultural production and mining, particularly as it relates to dust and noise generation. WCMPL expects this combined impact to be minimal through its previous experience of open cut operations at the Canyon and Tarrawonga sites. Nevertheless, impacts will be monitored through quarterly noise monitoring events and ongoing deposited dust and particulate matter monitoring, with comparisons of results pre and post mine production. It is generally considered that the ongoing operations of the Rocglen project will not interfere with the normal operations at surrounding properties which is predominantly grazing and cropping and heavily influenced by seasonal conditions.

Cumulative impact of an additional mining operation and transport of product on the Blue Vale Road has been considered and expected to be of a minor nature only. The Rocglen project is a replacement for the existing Canyon Coal mine and in this regard, there is expected to be only a minor overlap of product coal transport from both sites, with the Canyon operation due for closure on commencement of production at Rocglen. As a consequence, with Rocglen to be of a production capacity similar to the Canyon site, overall truck movements on Blue Vale Road are expected to remain relatively consistent.

WCMPL has purchased a number of the properties surrounding the project site in an effort to reduce overall impact on adjacent holdings. Product coal will be transported via the existing road network used for Canyon/Tarrawonga, and also over a newly established section of private haul road to the mine entrance. WCMPL, as part of its approval requirements, will also be undertaking sealing of a component of Wean Road to provide for an improved transport network which will also be of benefit to adjacent landholders by reducing road dust and improved road surface.

In light of the above, WCMPL considers cumulative impacts in the vicinity of the mine will be of a minor nature and assessed in accordance with ongoing monitoring requirements.

**Table 5.16**  
**Objectives and Key Performance Outcomes – Cumulative Impacts**

OBJECTIVES	KEY PERFORMANCE OUTCOMES
(a) To minimise potential for cumulative impact associated with the mine and adjacent existing industry	(i) Ongoing monitoring particularly in terms of noise and dust generation to determine mine contribution to dust and noise levels.
(b) To minimise impact associated with coal transport on Blue Vale Road via coordination of Canyon completion and Rocglen commencement.	(ii) Monitoring of product transport levels in consultation with GSC and provision of funding for road maintenance in accordance with road maintenance agreement.

	<ul style="list-style-type: none"><li>(iii) Sealing of section of Wean Road as per project approval requirement.</li><li>(iv) Transport route maintained in appropriate condition as confirmed in consultation with GSC.</li></ul>
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## **6 INFORMATION DISSEMINATION, COMPLAINTS MANAGEMENT AND DISPUTE RESOLUTION**

### **6.1 Information Dissemination**

WCMPL is committed to a policy of community membership and a sense of mine ownership by employees and local community members, and will undertake a program of regular liaison / contact with local residents, landowners and the broader community to inform them of mine's progress. Such a program will also provide an opportunity to discuss issues of "concern" which residents are reticent to register as complaints.

All such liaison / contacts / comments will be documented.

Dissemination of information to the local community and relevant agencies regarding the mining operation, its progress and environmental management performance, will be achieved by both formal and informal means including the following;

#### **i) Community Consultative Committee (CCC)**

The CCC will include a minimum three representatives of the local community, one representative from Gunnedah Shire Council, and independent chairperson, and a minimum two representatives of the Company, one of which must have direct managerial responsibility for environmental management at the mine. The committee will act as local focal points for the provision of information to, and receipt of comments from, community members. CCC meetings will be held at least four times per year (or at other frequencies as determined by the Director-General) at which WCMPL representatives will provide advice on the status of construction activities, the mine's progress, environmental performance and monitoring results, complaints etc. The CCC meetings will also act as a forum for discussion of each of the above aspects or any other issue brought up by members of the community through the CCC representatives, or directly with WCMPL.

The minutes of the CCC meeting will be available at Gunnedah Shire Council or other venue(s) agreed by the CCC within fourteen days of each meeting.

In addition to their tabling at CCC meetings, relevant environmental monitoring results pertaining to individual landholders will be provided on request, and all results will be available for public examination. WCMPL will seek advice from each relevant landowner as to their desire to receive monitoring results.

WCMPL will provide the opportunity for the CCC and local residents, landholders, schools and community groups to visit the mine, as well as maintaining an open door policy for interested local residents.

Copies of all management plans / strategies or monitoring programs, together with the results of independent audits undertaken in accordance with PA 06\_0198 will also be provided to the CCC and the Council, and made publicly available at Councils office as well on the company website.

#### **ii) Annual Environmental Management Report (AEMR)**

Each year, WCMPL will prepare an AEMR which will:

- (a) identify the standards and performance measures that apply to the project;

- (b) describe the works carried out in the last 12 months ;;
- (c) describe the works that would be carried out in the next 12 months;;
- (d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;
- (e) include a summary of the monitoring results for the project during the past year;
- (f) include an analysis of these monitoring results against the relevant:
  - impact assessment criteria/limits;
  - monitoring results from previous years; and
  - predictions in the EA;
- (g) identify any trends in the monitoring results over the life of the project;
- (h) identify any non-compliance during the previous year; and
- (i) describe what actions were, or are being, taken to ensure compliance.

The AEMR will also address the matters identified in the DPI-MR document entitled "Guidelines to the Mining, Rehabilitation and Environmental Management Process".

The AEMR will be provided to Council, relevant agencies and to the CCC members and also made available for public review at Council's office and on the company website.

### **iii) Other Methods**

Visits by relevant government agencies, e.g. DECC, DPI-MR to inspect the mine site and WCMPL's performance, will be documented together with the provision of reports or information as requested.

WCMPL will maintain regular formal and informal contact with relevant government agencies.

WCMPL will provide reports to relevant government agencies in the event of non-compliance or a potential non-compliance with respect to statutory criteria or guidelines.

In addition to the above, WCMPL may also utilise the local press to present feature articles on the mine's progress.

## 6.2 Complaints Receipt and Response Procedures

In order to receive, record and respond to any complaints in a timely manner, WCMPL will establish and maintain a telephone complaints line for the purpose of receiving complaints from any member of the public in relation to its activities. The complaints line will be operational 24 hours per day, seven days per week, be publicly advertised and the details supplied to adjacent landowners.

All complaints will be registered in a log or similar database and responded to within 24 hours of the receipt of a complaint except in the event of complaints recorded during weekends or holiday periods when the mine is not operating. A message bank will capture calls made outside operating hours or when the call cannot be answered. The recorded message will record the time of receipt and request the following information.

- complainant's name;
- telephone number;
- preferred time contact;
- nature of complaint.

The nature of the response will depend on the nature and source of complaints but will include one or more of the following actions.

- i) Liaison with the complainant to ascertain all details and to identify the nature and source of the complaint and provide supplementary details for the log. Details recorded in the log will include:
  - the date and time of the complaint;
  - the method by which the complaint was made;
  - personal details;
  - the nature of the complaint;
  - action taken by WCMPL in relation to the complaint including any follow-up contact; and
  - if no action, the reason why. This activity may extend to other landowners / residents to determine the overall extent of the perceived problem.
- ii) As appropriate, the initiation of monitoring or other investigations to verify or otherwise the exceedance or non-compliance with project approval, licence or lease conditions.
- iii) Initiation of appropriate changes in operating practices or procedures.
- iv) Conducting a follow-up interview with the resident to determine their level of satisfaction with the mine's response and the resultant outcome.

A copy of the report sheet will be supplied to the complainant, if requested.

A summary of the complaints received in each 12 month period will be included in each AEMR, together with a comparison with the number and nature of complaints received in the previous 5 years.

### **6.3 Dispute Resolution**

In the event that any complainant does not consider WCMPL's response or reactions adequately address their concerns, the following procedure will be adopted.

- (1) A meeting will be convened with the Area Manager and/or Mine Manager and Environmental Officer to seek resolution of the matter. The complainant will be provided with a written response from WCMPL detailing the results of investigations to date and the agreed actions to be taken in respect of the measures to be implemented.
- (2) On implementation of the nominated measures, a further meeting will be convened to seek advice of satisfaction or otherwise as to the outcomes.

If, after 21 days following Steps 1 and 2, the complainant believes the matter remains unresolved and no further agreement can be reached as to additional measures to be undertaken, the matter will be referred to the Department of Planning (and the relevant authority) for investigation and action as appropriate.

## 7 RESPONSE TO NON-COMPLIANCES

Compliance with all approvals, plans and procedures will be the responsibility of all personnel (staff and contract) employed on or in association with the mine, and will be developed through promotion of mine ownership under the direction of the Mine Manager and Environmental Officer.

The Environmental Officer and/or Mine Manager will undertake regular inspections, internal audits and initiate directions identifying any remediation / rectification work required, and areas of actual or potential non-compliance, with all directions provided to the relevant party in writing and/or diarised.

Any non compliances with regulations, licences or approvals will be reported to the relevant authority, together with details of the corrective actions taken to avoid future occurrences. Areas of potential non-compliance which have the potential to cause environmental harm or result in complaints will also be reported to the relevant authority as per requirements specified in Conditions 3 and 4 of Schedule 5 of PA06\_0198.

Non-compliances with the requirements of the mine's EPL will also be reported in each annual Licence Return.

A review of WCMPL's compliance with all conditions of the PA 06\_0198, mining lease and all other approvals and licences will be undertaken prior to (and included within) each AEMR submitted to the Director-General and DPI-MR. The AEMR will also be provided to Council, relevant agencies, the Community Consultative Committee (CCC) and for public review. Additionally, an independent environmental audit will be undertaken a minimum of once every three years and the report submitted to the Director-General, Gunnedah Shire Council, all relevant authorities and made available to the public at Council's office. The independent audit will be undertaken by an appropriately certified auditor in accordance with ISO 19011:2002 "Guidelines for Quality and/or Environmental Systems Auditing" and ISO 14011 or equivalent updated versions of these guidelines. A copy of all publicly available documents will be placed on the Whitehaven Coal Limited website.

A set of environmental procedures that deal with the renewal of licences, leases and approvals, and also prescribe the means to ensure compliance with regulatory requirements will also be established to ensure ongoing compliance in the event of personnel changes. The implementation checklist provided in **Appendix 2** of this Strategy will be used in this process.

## 8 EMERGENCY RESPONSE

As part of routine mine operations, WCMPL will undertake risk assessments to identify the risk probability and consequences of the proposed activities and aspects of the operation, the adequacy of existing controls to contain the hazards and, where identified as deficient, propose additional controls to further manage or eliminate hazards.

An Emergency Procedures Manual will be developed for the mine which, though primarily prepared in accordance with OH&S requirements, will extend to environmental emergencies.

Although specific procedures will be developed for individual situations, all will incorporate three basic steps as follows.

- (i) notification of the emergency (internal and/or external);
- (ii) protection of personnel as a first priority; and
- (iii) protection of the environment, plant and equipment.

Initially each of steps (ii) and (iii) would use internal resources, with assistance from external resources called upon as and when necessary.

Any emergency situations or incidents which do or could potentially have caused environmental harm, will be reported to DECC and other relevant authorities.

All site personnel will be trained in situation recognition and emergency response procedures, with regular updates through tool box talks.

## **9 APPENDICES**

### **Appendix 1: Project Approval (PA) 06\_0198**

**No. of pages = 27**

### **Appendix 2: Program for Implementation of Project Approval Conditions**

**No. of pages = 26**

## 9.1 Appendix 1: Project Approval (PA) 06\_0198

## 9.2 Appendix 2: Program for Implementation of Project Approval Conditions

### PREAMBLE

This document has been prepared to outline how Whitehaven Coal Mining Pty Ltd intends to implement the conditional requirements included in the project approval issued by the Minister for Planning on 15 April 2008. The various conditional requirements have been sorted and arranged with respect to time requirements and activities under the following headings.

1. General administrative requirements.
2. Activities to be carried out prior to commencement of construction.
3. Activities to be carried out within 6 months of the date of project approval.
4. Activities to be carried out within 12 months of the date of project approval.
5. Activities to be carried out within 18 months of the date of project approval.
6. Other activities to be completed under this project approval.



Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>General Administrative Requirements</b>					
2(1)	The Proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.	<ul style="list-style-type: none"> <li>Ensure all mitigation measures described within the project approval and other environmental documentation are implemented.</li> </ul>	<ul style="list-style-type: none"> <li>Annual Compliance Report which will form part of AEMR.</li> </ul>	Mine Manager and Environmental Officer	<input type="checkbox"/> DoP
2(2)	The Proponent shall carry out the project generally in accordance with the: <ul style="list-style-type: none"> <li>(a) EA;</li> <li>(b) statement of commitments; and</li> <li>(c) conditions of this [PA 06_0198] approval.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure all personnel and contractors are aware of conditional requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Annual Compliance Report which will form part of AEMR.</li> </ul>	Mine Manager and Environmental Officer	<input type="checkbox"/> DoP
2(3)	If there is any inconsistency between the above documents, the latter document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of the inconsistency.	<ul style="list-style-type: none"> <li>As Above</li> </ul>	<ul style="list-style-type: none"> <li>Annual Compliance Report which will form part of AEMR.</li> </ul>	Mine Manager and Environmental Officer	<input type="checkbox"/> DoP
2(4)	The Proponent shall comply with any reasonable and feasible requirements of the Director-General arising from the Department's assessment of: <ul style="list-style-type: none"> <li>(a) any reports, plans, programs, strategies or correspondence that are submitted in accordance with the conditions of this approval; and</li> <li>(b) the implementation of any actions or measures contained in these reports, plans, programs, strategies or correspondence.</li> </ul>	<ul style="list-style-type: none"> <li>All reports, plans and correspondence required by this project approval are to be submitted to the Director-General on time.</li> </ul>	<ul style="list-style-type: none"> <li>In the event the Director-General issues a requirement, a letter will be sent to the Director- General at the completion of requested works / actions and these will be reported in the following AEMR.</li> </ul>	Mine Manager and Environmental Officer	<input type="checkbox"/> DoP

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>General Administrative Requirements (cont.)</b>					
5(10)	Within 3 months of the approval of any strategy/plan/ program required under this approval (or any subsequent revision of these strategies/plans/ programs), or the completion of the audits or AEMRs required under this approval, the Proponent shall: <ul style="list-style-type: none"> <li>(a) provide a copy of the relevant document/s to the relevant agencies and CCC; and</li> <li>(b) put a copy of the relevant document/s on its website.</li> </ul>	<ul style="list-style-type: none"> <li>• All strategies, plans and programs are to be prepared as specified by the project approval.</li> <li>• The Company will post all relevant strategies, plans and programs once approved, on its website.</li> <li>• All documents will be distributed as specified by the project approval.</li> </ul>	<ul style="list-style-type: none"> <li>• A copy of correspondence sent to and received from the appropriate agencies is to be kept by WCMPL.</li> </ul>	Mine Manager and Environmental Officer	<input type="checkbox"/> DoP
5(11)	From the end of September 2008, and thereafter during the project, the Proponent shall: <ul style="list-style-type: none"> <li>(a) provide a copy of this approval as may be modified from time to time on its website;</li> <li>(b) provide a comprehensive, running summary of monitoring results required under this approval on its website; and</li> <li>(c) update these results on a regular basis (at least every three months).</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing maintenance of monitoring results on company database</li> <li>• Monitoring actions performed at required frequency as specified in applicable management plans.</li> </ul>	<ul style="list-style-type: none"> <li>• Quarterly Environmental Monitoring Report as submitted to the CCC, with copies made available to relevant authorities.</li> </ul>	Environmental Officer	<input type="checkbox"/> DoP

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Activities to be Carried Out Prior to Commencement of Development</b>					
3(2)	<p>The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <p>(a) be prepared in consultation with DWE and DECC by suitably qualified expert/s whose appointment/s have been approved by the Director-General;</p> <p>(b) be submitted to the Director General prior to the commencement of construction activities (not including construction of the Kamilaroi Highway and Hoad Lane intersections or sections 1 and 2 of the road transport route); and</p> <p>(c) include a:</p> <ul style="list-style-type: none"> <li>• Site Water Balance;</li> <li>• Erosion and Sediment Control Plan;</li> <li>• Surface Water Monitoring Plan;</li> <li>• Groundwater Monitoring Program; and</li> <li>• Surface and Groundwater Response Plan, setting out the procedures for: <ul style="list-style-type: none"> <li>○ investigating, and if necessary mitigating, any exceedances of the surface or groundwater assessment criteria (see below); and</li> <li>○ responding to any unforeseen impacts of the project.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Water Management Plan to be prepared in accordance with the condition and attached to the MOP and submitted to the Director-General on completion.</li> </ul>	<ul style="list-style-type: none"> <li>• Water Management Plan (to be attached to the MOP).</li> </ul>	<p>RCA and Soil Services to prepare. Mine Manager to implement.</p>	<input type="checkbox"/> DECC <input type="checkbox"/> DoP <input type="checkbox"/> DWE
3(3)	<p>The Site Water Balance must:</p> <p>(a) include details of:</p> <ul style="list-style-type: none"> <li>• sources and security of water supply;</li> <li>• water use on site;</li> <li>• water management on site;</li> <li>• any off-site water transfers;</li> </ul> <p>(b) describe measures to minimise water use by the project; and</p> <p>(c) be reviewed and recalculated each year in the light of the most recent water monitoring data.</p>	<ul style="list-style-type: none"> <li>• Inclusion of Site Water Balance in Water Management Plan in accordance with project approval.</li> </ul>	<ul style="list-style-type: none"> <li>• Water Management Plan (to be attached to MOP)</li> <li>• AEMR including review of site water balance.</li> </ul>	<p>RCA and Soil Services for initial calculation and inclusion in WMP. Environmental Officer for annual review in AEMR.</p>	<input type="checkbox"/> DECC <input type="checkbox"/> DoP <input type="checkbox"/> DWE

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Activities to be Carried Out Prior to Commencement of Development (cont.)</b>					
3(4)	The Erosion and Sediment Control Plan must: (a) be consistent with the requirements of <i>Managing Urban Stormwater: Soils and Construction</i> manual (Landcom 2004, or its latest version); (b) identify activities that could cause soil erosion and generate sediment; (c) describe measures to minimise soil erosion and the potential for transport of sediment to downstream waters; (d) describe the location, function, and capacity of erosion and sediment control structures; and (e) describe what measures would be implemented to monitor and maintain the structures over time.	<ul style="list-style-type: none"> <li>Inclusion of Erosion and Sediment Control Plan in the Water Management Plan in accordance with project approval.</li> </ul>	<ul style="list-style-type: none"> <li>Water Management Plan, incorporating ESCP (to be attached to MOP).</li> </ul>	RCA and Soil Services for inclusion of ESCP in WMP.	<input type="checkbox"/> DECC <input type="checkbox"/> DoP <input type="checkbox"/> DWE
3(5)	The Surface Water Monitoring Plan must include: (a) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could be affected by the project; (b) surface water impact assessment criteria; (c) a program to monitor the impact of the project on surface water flows and quality; and (d) procedures for reporting the results of this monitoring.	<ul style="list-style-type: none"> <li>Inclusion of Surface Water Monitoring Program in the Water Management Plan in accordance with the project approval</li> </ul>	<ul style="list-style-type: none"> <li>Water Management Plan, incorporating Surface Water Monitoring Program (to be attached to MOP).</li> </ul>	RCA and Soil Services to prepare Surface Water Monitoring Plan	<input type="checkbox"/> DECC <input type="checkbox"/> DoP <input type="checkbox"/> DWE
3(6)	The Groundwater Monitoring Program must include: (a) further development of the regional and local groundwater model; (b) detailed baseline data to benchmark the natural variation in groundwater levels, yield and quality (including at any privately owned bores in the vicinity of the site); (c) groundwater impact assessment criteria; (d) a program to monitor the impact of the project on groundwater levels, yield and quality; and (e) procedures for reporting the results of this monitoring.	<ul style="list-style-type: none"> <li>Inclusion of Groundwater Monitoring Program in the Water Management Plan in accordance with the project approval.</li> </ul>	<ul style="list-style-type: none"> <li>Water Management Plan, incorporating Groundwater Monitoring Program (to be attached to the MOP).</li> </ul>	RCA and Soil Services to prepare Groundwater Monitoring Program for inclusion in the WMP.	<input type="checkbox"/> DECC <input type="checkbox"/> DoP <input type="checkbox"/> DWE

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Activities to be Carried Out Prior to Commencement of Development (cont.)</b>					
3(10)	The Proponent shall prepare and implement a Noise Monitoring Program for the project to the satisfaction of the Director-General. This program must: <ul style="list-style-type: none"> <li>(a) be prepared in consultation with the DECC;</li> <li>(b) be submitted to the Director-General for approval prior to the commencement of construction activities (not including the construction of the Kamilaroi Highway and Hoad Lane intersections and sections 1 and 2 of the coal transport route);</li> <li>(c) use attended noise monitoring measures to monitor the performance of the project; and</li> <li>(d) include a protocol to establish whether the project is complying with the noise impact assessment criteria in Tables 1 and 2.</li> </ul>	<ul style="list-style-type: none"> <li>• Noise Monitoring Program to be prepared in accordance with the project approval and attached to the MOP and submitted to the Director-General on completion.</li> </ul>	<ul style="list-style-type: none"> <li>• Noise Monitoring Program (to be attached to the MOP).</li> <li>• Analysis results from monitoring events.</li> </ul>	Environmental Officer to prepare on basis of Environmental Assessment. Mine Manager to implement.	<input type="checkbox"/> DECC <input type="checkbox"/> DoP
3(24)	The Proponent shall prepare and implement an Air Quality Monitoring Program for the project in consultation with DECC, and to the satisfaction of the Director-General. This program must: <ul style="list-style-type: none"> <li>(a) be submitted to the Director-General prior to the commencement of construction activities (not including the Kamilaroi Highway and Hoad Lane intersections and sections 1 and 2 of the coal transport route);</li> <li>(b) be prepared in consultation with the DECC; and</li> <li>(c) use a combination of high volume samplers and dust deposition gauges to monitor the performance of the project.</li> </ul>	<ul style="list-style-type: none"> <li>• Air Quality Monitoring Program to be prepared in accordance with the project approval and attached to the MOP and submitted to the Director-General for approval.</li> </ul>	<ul style="list-style-type: none"> <li>• Air Quality Monitoring Program (to be attached to MOP).</li> <li>• Analysis results from both high volume samplers and dust deposition gauges.</li> </ul>	Environmental Officer to prepare on basis of Environmental Assessment. Mine Manager to implement	<input type="checkbox"/> DECC <input type="checkbox"/> DoP

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Activities to be Carried Out Prior to Commencement of Development (cont.)</b>					
3(22)	Prior to the commencement of blasting, the Proponent shall prepare and implement a detailed Blasting Monitoring Program for the project in consultation with DECC, and to the satisfaction of the Director-General.	<ul style="list-style-type: none"> <li>Blasting Monitoring Program to be prepared in accordance with the project approval, attached to the MOP and submitted to the Director-General on completion.</li> </ul>	<ul style="list-style-type: none"> <li>Blasting Monitoring Program (to be attached to the MOP).</li> </ul>	Environmental Officer to prepare on basis of Environmental Assessment. Mine Manager to implement.	<input type="checkbox"/> DoP
3(19)	Before carrying out any blasting, the Proponent shall advise the owners of "Costa Vale", "Surrey" and "Brolga", all landowners within 2 km of proposed blasting activities, and any other landowner nominated by the Director-General, that they are entitled to a property inspection.	<ul style="list-style-type: none"> <li>Liaison with adjoining holders within 2km of proposed blast activity.</li> </ul>	<ul style="list-style-type: none"> <li>Diarised entry identifying date, time and method of notification.</li> </ul>	Environmental Officer	<input type="checkbox"/> DoP
3(20)	<p>If the Proponent receives a written request for a property inspection from any landowner within 2 km of proposed blasting activities, or any other landowner nominated by the Director-General, the Proponent shall within 3 months of receiving this request:</p> <p>(a) commission a suitably qualified person, whose appointment has been approved by the Director-General, to inspect the condition of any building or structure on the land, and recommend measures to mitigate any potential blasting impacts; and</p> <p>(b) give the landowner a copy of this property inspection report.</p>	<ul style="list-style-type: none"> <li>Engagement of qualified person to undertake property inspection as required under the project approval.</li> </ul>	<ul style="list-style-type: none"> <li>Property Inspection Report.</li> </ul>	Environmental Officer Appointed Engineer to undertake inspection.	<input type="checkbox"/> DoP

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Activities to be Carried Out Prior to Commencement of Development (cont.)</b>					
5(1)	<p>The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must be submitted to the Director-General prior to the commencement of construction activities (not including the construction of the Kamilaroi Highway and Hoad Lane intersections and sections 1 and 2 of the road transport route), and:</p> <ul style="list-style-type: none"> <li>(a) provide the strategic framework for environmental management of the project;</li> <li>(b) identify the statutory requirements that apply to the project;</li> <li>(c) describe in general how the environmental performance of the project would be monitored and managed;</li> <li>(d) describe the procedures that would be implemented to: <ul style="list-style-type: none"> <li>• keep the local community and relevant agencies informed about the operation and environmental performance of the project;</li> <li>• receive, handle, respond to, and record complaints;</li> <li>• resolve any disputes that may arise during the course of the project;</li> <li>• respond to any non-compliance;</li> <li>• manage cumulative impacts; and</li> <li>• respond to emergencies; and</li> </ul> </li> <li>(e) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project.</li> </ul>	<ul style="list-style-type: none"> <li>• Compile and submit this document.</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Management Strategy</li> </ul>	Environmental Officer and Mine Manager	<input type="checkbox"/> DoP

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Activities to be Carried Out Prior to Commencement of Development (cont.)</b>					
3(36)	<p>The Proponent shall prepare and implement an Aboriginal Cultural Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <ul style="list-style-type: none"> <li>(a) be submitted the Director-General prior to the commencement of construction activities (not including the construction of the Kamilaroi Highway and Hoad Lane intersections);</li> <li>(b) be prepared in consultation with the DECC, Red Chief Local Aboriginal Land Council, Gunida Gonyah Aboriginal Corporation, Min Min Aboriginal Corporation and Bigundi Gunnedar Traditional People;</li> <li>(c) include a protocol for the ongoing consultation and involvement of Aboriginal communities in the conservation and management of Aboriginal heritage on site;</li> <li>(d) make provision for the local Aboriginal community to monitor works at the project site that occur in areas considered by the local Aboriginal community to be culturally sensitive;</li> <li>(e) describe the measures that would be implemented to protect Aboriginal objects and traditional resources (such as Wild Orange - <i>Capparis mitchellii</i>) on site, or if any new Aboriginal objects or skeletal remains are discovered during the project; and</li> <li>(f) describe the cultural heritage awareness and protection training program to be undertaken by all employees and contractors.</li> </ul>	<ul style="list-style-type: none"> <li>• Aboriginal Cultural Heritage Management Plan prepared in accordance with project approval, attached to the MOP and submitted to the Director General for approval</li> </ul>	<ul style="list-style-type: none"> <li>• Aboriginal Cultural Heritage Plan (for attachment to MOP)</li> <li>• Letter of concurrence from DECC, Red Chief LALC, Gunida Gonyah Aboriginal Corporation, Min Min Aboriginal Corporation and Bigundi Biame Gunnedarr Traditional People.</li> </ul>	Environmental Officer	<input type="checkbox"/> DECC <input type="checkbox"/> DoP
3(45)	<p>Prior to the transport of any coal from the mine site, the Proponent shall produce and implement a combined Road Noise Management Plan for the project, Canyon (Whitehaven) and Tarrawonga mines, including a noise monitoring program and full consideration of the combined impacts of traffic associated with these mines, in consultation with GSC, and to the satisfaction of the Director-General.</p>	<ul style="list-style-type: none"> <li>• Road Noise Management Plan prepared in accordance with project approval, attached to the MOP and submitted to the Director General for approval</li> </ul>	<ul style="list-style-type: none"> <li>• Road Noise Management Plan (for attachment to MOP)</li> <li>• Letter of concurrence from GSC</li> <li>• Analysis results from monitoring events</li> </ul>	Environmental Officer	<input type="checkbox"/> DoP

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Activities to be Carried Out Prior to Commencement of Development (cont.)</b>					
3(38)	Prior to coal being transported from the site, the Proponent shall ensure the coal transport route from the Belmont mine site to the Whitehaven Siding coal handling and preparation plant is constructed and tar sealed, to the satisfaction of GSC. If agreement cannot be reached, the matter shall be referred to the Director-General for resolution.	<ul style="list-style-type: none"> <li>• Completion of tar sealed road to satisfaction of GSC</li> </ul>	<ul style="list-style-type: none"> <li>• Letter of satisfaction from GSC</li> </ul>	Mine Manager	<input type="checkbox"/> GSC
3(42)	Prior to coal being transported from the site, the Proponent shall construct the Hoad Lane intersection in general accordance with the design shown in Figure 4 of Appendix 1, and to the satisfaction of GSC.	<ul style="list-style-type: none"> <li>• Completion of intersection to satisfaction of GSC</li> </ul>	<ul style="list-style-type: none"> <li>• Letter of satisfaction from GSC</li> </ul>	Mine Manager	<input type="checkbox"/> GSC

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Activities to be Carried Out Within 6 Months of the Date of Project Approval</b>					
3(44)	By the end of September 2008, the Proponent shall review (and implement any approved changes to) the road maintenance agreement between the Proponent and GSC for public roads used as the coal transport route within Gunnedah Shire, to the satisfaction of GSC. If agreement cannot be reached, the matter shall be referred to the Director-General for resolution.	<ul style="list-style-type: none"> <li>Formal agreement entered into with GSC</li> </ul>	<ul style="list-style-type: none"> <li>Signed Planning Agreements as required under the Project Approval</li> </ul>	General Manager – New Projects	<input type="checkbox"/> GSC
3(47)	The Proponent shall prepare and implement a Greenhouse and Energy Efficiency Plan for the project to the satisfaction of the Director-General. This plan must: <ul style="list-style-type: none"> <li>(a) be prepared in consultation with DECC and generally in accordance with the <i>Guidelines for Energy Savings Action Plans</i> (DEUS 2005, or its latest version);</li> <li>(b) be submitted to the Director-General for approval by the end of September 2008;</li> <li>(c) include a program to monitor greenhouse gas emissions and energy use generated by the project;</li> <li>(d) include a framework for investigating and implementing measures to reduce greenhouse gas emissions and energy use at the site; and</li> <li>(e) describe how the performance of these measures would be monitored over time.</li> </ul>	<ul style="list-style-type: none"> <li>Greenhouse and Energy Efficiency Plan as per the condition of consent and submitted to the Director General for approval.</li> </ul>	<ul style="list-style-type: none"> <li>Greenhouse and Energy Efficiency Plan for attachment to MOP.</li> </ul>	Environmental Officer or Consultant	<input type="checkbox"/> DECC <input type="checkbox"/> DoP
5(2)	The Proponent shall prepare and implement an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must be submitted to the Director-General by the end of September 2008 and consolidate the various monitoring requirements in schedule 3 of this approval into a single document.	<ul style="list-style-type: none"> <li>Environmental Monitoring Program as approved by the Director General</li> </ul>	<ul style="list-style-type: none"> <li>Environmental Monitoring Program as approved by the DoP</li> </ul>	Environmental Officer	<input type="checkbox"/> DoP
5(9)	By the end of September 2008, or other date agreed by the Director-General, the Proponent shall establish a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General, in general accordance with the Guideline for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007), or its latest version.	<ul style="list-style-type: none"> <li>CCC establishment</li> </ul>	<ul style="list-style-type: none"> <li>Approval of DoP to members of the CCC committee</li> </ul>	Environmental Officer	<input type="checkbox"/> DoP

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Activities to be Carried Out Within 12 Months of the Date of Project Approval</b>					
3(43)	By the end of March 2009, the Proponent shall reconstruct and bitumen seal Wean Road from the northern end of the existing tar seal to a point 200 metres north of the proposed light vehicle entry to the site from Wean Road. Additionally, within 3 months of the completion of the proposed diversion of Wean Road to facilitate open cut mining operations, the Proponent shall reconstruct and extend the bitumen seal Wean Road to a point 200 metres north of the relocated position of Jaeger Lane (see Figure 1 of Appendix 2) in general accordance with GSC's Rural Local Roads Standard, and to the satisfaction of GSC.	<ul style="list-style-type: none"> <li>Bitumen seal the nominated section of Wean Road</li> </ul>	<ul style="list-style-type: none"> <li>Letter of satisfaction from GSC</li> </ul>	Project Manager	<input type="checkbox"/> GSC
3(30)	<p>The Proponent shall prepare and implement a detailed Landscape Management Plan for the site to the satisfaction of the Director-General and DPI. This plan must:</p> <p>(a) be prepared in consultation with DWE, DECC and GSC by suitably qualified expert/s whose appointment/s have been approved by the Director-General;</p> <p>(b) be submitted to the Director-General for approval by the end of March 2009;</p> <p>(c) include a:</p> <ul style="list-style-type: none"> <li>Rehabilitation and Offset Management Plan;</li> <li>Final Void Management Plan; and</li> <li>Mine Closure Plan.</li> </ul> <p><i>Note: The Department accepts that the initial Landscape Management Plan may not include the detailed Final Void Management Plan and Mine Closure Plan. However, if this occurs, the Applicant will be required to seek approval from the Director-General for an alternative timetable for the completion and approval of the Final Void Management Plan and Mine Closure Plan.</i></p>	<ul style="list-style-type: none"> <li>Preparation and implementation of Landscape Management Plan as per Project Approval.</li> </ul>	<ul style="list-style-type: none"> <li>Landscape Management Plan as approved by DoP</li> </ul>	Environmental Officer in conjunction with consultant for preparation of plan	<input type="checkbox"/> DWE <input type="checkbox"/> DECC <input type="checkbox"/> DoP <input type="checkbox"/> GSC

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Activities to be Carried Out Within 12 Months of the Date of Project Approval(cont.)</b>					
3(31)	<p>The Rehabilitation Management Plan must include:</p> <ul style="list-style-type: none"> <li>(a) the objectives for rehabilitation of the site and offset areas;</li> <li>(b) a strategic description of how the rehabilitation of the site would be integrated with surrounding land use;</li> <li>(c) a description of the short and long term measures that would be implemented to:                             <ul style="list-style-type: none"> <li>• rehabilitate the site;</li> <li>• implement the biodiversity offsets;</li> <li>• manage the remnant vegetation and habitat on the site and in the offset areas; and</li> <li>• maximise effective vegetative linkages for the offset areas and across the valley floor to the Whitehaven Regional Biodiversity Offset area;</li> </ul> </li> <li>(d) detailed performance and completion criteria for the rehabilitation of the site and the implementation of the biodiversity offsets;</li> <li>(e) a detailed description of how the performance of the rehabilitation works and the offset areas would be monitored over time to achieve the stated objectives;</li> <li>(f) a detailed description of the measures that would be implemented to rehabilitate the site, including the measures to be implemented for:                             <ul style="list-style-type: none"> <li>• managing the remnant vegetation and habitat on site;</li> <li>• minimising impacts on fauna;</li> <li>• minimising visual impacts;</li> <li>• conserving and reusing topsoil;</li> <li>• controlling weeds, feral pests, and access;</li> <li>• managing bushfires; and</li> <li>• managing any potential conflicts between the rehabilitation works and/or biodiversity offsets and Aboriginal cultural heritage;</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Rehabilitation Management Plan development for inclusion in overall Landscape Management Plan for approval of the Director General</li> </ul>	<ul style="list-style-type: none"> <li>• Rehabilitation Management Plan, as approved, for inclusion in the Landscape Management Plan</li> </ul>	Environmental Officer in conjunction with consultant completing the plan	<input type="checkbox"/> DWE <input type="checkbox"/> DECC <input type="checkbox"/> DoP <input type="checkbox"/> GSC

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Activities to be Carried Out Within 12 Months of the Date of Project Approval (cont.)</b>					
3(31) cont.	(g) a description of the potential risks to successful rehabilitation and/or revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and  (h) details of who is responsible for monitoring, reviewing and implementing the plan.				
3(32)	The Final Void Management Plan must: (a) justify the final location, configuration and future use of the final void; (b) incorporate design criteria and specifications of the final void based on verified groundwater modelling predictions and re-assessment of the post-mining groundwater levels; (c) assess the potential interactions between groundwater resources, surface water flows and the final void; and (d) describe what actions and measures would be implemented to: <ul style="list-style-type: none"> <li>minimise any potential adverse impacts associated with the final void; and</li> <li>manage and monitor the potential impact of the final void.</li> </ul>	<ul style="list-style-type: none"> <li>Submission of Final Void Management Plan as a component of the Landscape Management Plan for approval of the Director General</li> </ul>	<ul style="list-style-type: none"> <li>Landscape Management Plan which comprises Final Void Management Plan as approved by the DoP</li> </ul>	Environmental Officer in conjunction with consultant completing the plan	<input type="checkbox"/> DWE <input type="checkbox"/> DECC <input type="checkbox"/> DoP <input type="checkbox"/> GSC
3(33)	The Mine Closure Plan must: (a) define the objectives and criteria for mine closure; (b) investigate options for the future use of the site, including the final void; (c) investigate ways to minimise the adverse socio-economic effects associated with mine closure, including reduction in local and regional employment levels; (d) describe the measures that would be implemented to minimise or manage the on-going environmental effects of the project, and (e) describe how the performance of these measures would be monitored over time.	<ul style="list-style-type: none"> <li>Submission of Mine Closure Plan as a component of the Landscape Management Plan for approval of the Director General</li> </ul>	<ul style="list-style-type: none"> <li>Landscape Management Plan which comprises Mine Closure Plan as approved by the DoP</li> </ul>	Environmental Officer in conjunction with consultant completing the plan	<input type="checkbox"/> DWE <input type="checkbox"/> DECC <input type="checkbox"/> DoP <input type="checkbox"/> GSC

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Activities to be Carried Out Within 12 Months of the Date of Project Approval (cont.)</b>					
5(5)	<p>By the end of March 2009, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and to all relevant agencies. This report must:</p> <ul style="list-style-type: none"> <li>(a) identify the standards and performance measures that apply to the project;</li> <li>(b) describe the works carried out in the last 12 months;</li> <li>(c) describe the works that would be carried out in the next 12 months;</li> <li>(d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;</li> <li>(e) include a summary of the monitoring results for the project during the past year;</li> <li>(f) include an analysis of these monitoring results against the relevant: <ul style="list-style-type: none"> <li>• impact assessment criteria/limits;</li> <li>• monitoring results from previous years; and</li> <li>• predictions in the EA;</li> </ul> </li> <li>(g) identify any trends in the monitoring results over the life of the project;</li> <li>(h) identify any non-compliance during the previous year; and</li> <li>(i) describe what actions were, or are being, taken to ensure compliance.</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare the AEMR – based upon information compiled regularly throughout each operational year.</li> </ul>	<ul style="list-style-type: none"> <li>• Completed AEMR.</li> </ul>	Environmental Officer and Mine Manager	<input type="checkbox"/> DoP <input type="checkbox"/> GSC <input type="checkbox"/> DECC <input type="checkbox"/> DPI-MR <input type="checkbox"/> DWE

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Activities to be Carried Out Within 18 Months of the Date of Project Approval</b>					
3(41)	The Proponent shall construct the Kamilaroi Highway intersections in consultation with GSC and to the satisfaction of RTA. This intersection must: (a) be completed within 18 months of this approval; (b) be constructed in accordance with a Traffic Management Plan approved by GSC and RTA; and (c) include appropriate signage and illumination of the intersections.	<ul style="list-style-type: none"> <li>Completion of intersection to the satisfaction of GSC and RTA</li> <li>Traffic Management Plan to the satisfaction of GSC and RTA</li> </ul>	<ul style="list-style-type: none"> <li>Traffic Management Plan</li> <li>Written advice from GSC and RTA identifying completed intersection is to required standards</li> </ul>	Mine Manager and General Manager – New Projects	<input type="checkbox"/> RTA <input type="checkbox"/> GSC <input type="checkbox"/> DoP
<b>Other Actions Required Under the Project Approval</b>					
3(17)	Prior to blasting within 500 metres of any public road, the Proponent shall prepare and implement a Road Closure Management Plan for the project to the satisfaction of GSC and DPI.	<ul style="list-style-type: none"> <li>Prepare and implement Road Closure Management Plan</li> </ul>	<ul style="list-style-type: none"> <li>Road Closure Management Plan</li> <li>Letter of satisfaction from GSC and DPI</li> </ul>	Environmental Officer and Mine Manager	<input type="checkbox"/> GSC <input type="checkbox"/> DPI
5(6)	By the end of March 2011, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must: (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General; (b) include consultation with the relevant agencies (c) assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any associated EPL or Mining Lease (including any strategy, plan or program required under these approvals); (d) review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate, (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals.	<ul style="list-style-type: none"> <li>Completion of audit submitted for approval</li> </ul>	<ul style="list-style-type: none"> <li>Audit document and action plan on basis of audit</li> </ul>	Environmental Officer to engage suitably qualified expert	<input type="checkbox"/> DoP

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Other Actions Required Under the Project Approval (cont.)</b>					
5(7)	Within 6 weeks of the completing of this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.	<ul style="list-style-type: none"> <li>Submission of audit to Director General with company response/action plan</li> </ul>	<ul style="list-style-type: none"> <li>Audit document and action plan</li> </ul>	Environmental Officer	<input type="checkbox"/> DoP
5(8)	Within 3 months of submitting the audit report to the Director-General, the Proponent shall review, and if necessary revise the strategies/plans/programs required under this approval to the satisfaction of the Director-General.	<ul style="list-style-type: none"> <li>Review of strategies, plans or programs to the satisfaction of the Director General</li> </ul>	<ul style="list-style-type: none"> <li>Amended plans based on review</li> </ul>	Environmental Officer	<input type="checkbox"/> DoP
2(5)	Mining operations may take place on the site for 12 years from the grant of the mining lease for the project.	<ul style="list-style-type: none"> <li>Mining for a period of no more than 12 years</li> </ul>	<ul style="list-style-type: none"> <li>Advice to and acceptance from DPI as to cessation of production</li> </ul>	Mine Manager	<input type="checkbox"/> DPI
2(6)	The Proponent shall not extract more than 1.5 million tonnes of ROM coal a year from the site.	<ul style="list-style-type: none"> <li>Extraction not to exceed 1.5 Mtpa</li> </ul>	<ul style="list-style-type: none"> <li>Production schedules</li> </ul>	Mine Manager	<input type="checkbox"/> DoP
2(7)	The Proponent is permitted to undertake mining operations 24 hours a day, Monday to Saturday, with the exception of public holidays.	<ul style="list-style-type: none"> <li>Mining operations to remain within hours specified in Project Approval.</li> </ul>	<ul style="list-style-type: none"> <li>Operations timetable and schedules</li> </ul>	Mine Manager	<input type="checkbox"/> DoP
2(8)	The Proponent is only permitted to undertake construction activities between the hours of: <ol style="list-style-type: none"> <li>6 am to 8 pm, Monday to Saturday;</li> <li>6 am to 5 pm, Sunday; and</li> <li>at no time on public holidays.</li> </ol>	<ul style="list-style-type: none"> <li>Construction activities to remain within hours specified in Project Approval.</li> </ul>	<ul style="list-style-type: none"> <li>Construction timetable and schedules</li> </ul>	Mine Manager	<input type="checkbox"/> DoP
2(9)	With the approval of the Director-General, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.	<ul style="list-style-type: none"> <li>Obtain concurrence from DoP</li> </ul>	<ul style="list-style-type: none"> <li>Letter of Concurrence from DoP</li> </ul>	Environmental Officer	<input type="checkbox"/> DoP
2(10)	The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.	<ul style="list-style-type: none"> <li>All buildings and structures to comply with BCA</li> </ul>	<ul style="list-style-type: none"> <li>Compliance certificates if required</li> </ul>	Mine Manager	<input type="checkbox"/> DoP
2(11)	The Proponent shall ensure that all demolition work is carried out in accordance with <i>Australian Standard AS 2601-2001: The Demolition of Structures</i> , or its latest version.	<ul style="list-style-type: none"> <li>All demolition is compliant with AS 2601-2001</li> </ul>	<ul style="list-style-type: none"> <li>Compliance certificates if required</li> </ul>	Mine Manager	<input type="checkbox"/> DoP

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency														
<b>Other Actions Required Under the Project Approval (cont.)</b>																			
2(12)	The Proponent shall ensure that all plant and equipment used on site is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	<ul style="list-style-type: none"> <li>Personnel training in proper operations and regular maintenance scheduling</li> </ul>	<ul style="list-style-type: none"> <li>Service sheets</li> </ul>	Mine Manager	<input type="checkbox"/> DoP														
3(1)	Except as may be expressly provided for by an EPL, the Proponent shall not discharge any surface waters from the site	<ul style="list-style-type: none"> <li>Discharge in compliance with EPL criteria only</li> </ul>	<ul style="list-style-type: none"> <li>Annual Licence Return to DECC (EPA)</li> </ul>	Environmental Officer	<input type="checkbox"/> DECC <input type="checkbox"/> DoP														
3(7)	<p>The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria set out in Table 1 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.</p> <table border="1" data-bbox="315 826 996 1026"> <thead> <tr> <th rowspan="2">Location</th> <th>Day</th> <th>Evening</th> <th colspan="2">Night</th> </tr> <tr> <th>L<sub>Aeq</sub> (15 minute)</th> <th>L<sub>Aeq</sub> (15 minute)</th> <th>L<sub>Aeq</sub> (15 minute)</th> <th>L<sub>A1</sub> (1 minute)</th> </tr> </thead> <tbody> <tr> <td>All privately owned residences</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table> <p><i>Table 1: Impact assessment criteria</i></p> <p>However, if the Proponent has a written negotiated noise agreement with any landowner and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.</p>	Location	Day	Evening	Night		L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>A1</sub> (1 minute)	All privately owned residences	35	35	35	45	<ul style="list-style-type: none"> <li>Monitoring in accordance with Noise Monitoring Program</li> </ul>	<ul style="list-style-type: none"> <li>Reporting by qualified consultants in accordance with Noise Monitoring Program</li> </ul>	Environmental Officer	<input type="checkbox"/> DECC <input type="checkbox"/> DoP
Location	Day		Evening	Night															
	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>A1</sub> (1 minute)															
All privately owned residences	35	35	35	45															

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency								
<b>Other Actions Required Under the Project Approval (cont.)</b>													
3(8)	<p>The Proponent shall ensure that the cumulative noise generated by road traffic associated with the project, Canyon (Whitehaven) and Tarrawonga mines on public roads does not exceed the criteria in Table 2.</p> <table border="1"> <thead> <tr> <th>Day L<sub>Aeq</sub> (1 hour)</th> <th>Evening L<sub>Aeq</sub> (1 hour)</th> <th>Night L<sub>Aeq</sub> (1 hour)</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>60</td> <td>60</td> <td>50</td> <td>Any residence on privately owned land</td> </tr> </tbody> </table> <p><i>Table 2: Road Traffic Noise Criteria</i></p>	Day L <sub>Aeq</sub> (1 hour)	Evening L <sub>Aeq</sub> (1 hour)	Night L <sub>Aeq</sub> (1 hour)	Location	60	60	50	Any residence on privately owned land	<ul style="list-style-type: none"> <li>Monitoring in accordance with Noise Monitoring Program</li> </ul>	<ul style="list-style-type: none"> <li>Reporting by qualified consultants in accordance with Noise Monitoring Program</li> </ul>	Environmental Officer	<input type="checkbox"/> DECC <input type="checkbox"/> DoP
Day L <sub>Aeq</sub> (1 hour)	Evening L <sub>Aeq</sub> (1 hour)	Night L <sub>Aeq</sub> (1 hour)	Location										
60	60	50	Any residence on privately owned land										
3(9)	<p>The Proponent shall:</p> <p>(a) implement all reasonable and feasible best practice noise mitigation measures;</p> <p>(b) investigate ways to reduce the noise generated by the project, including off-site road and rail noise and maximum noise levels which may result in sleep disturbance; and</p> <p>(c) report on these investigations and the implementation and effectiveness of these measures in the AEMR, to the satisfaction of the Director-General.</p>	<ul style="list-style-type: none"> <li>Investigation of best practice to minimise noise impact</li> </ul>	<ul style="list-style-type: none"> <li>Reporting of actions and effectiveness in AEMR</li> </ul>	Environmental Officer	<input type="checkbox"/> DoP								
3(11)	<p>The Proponent shall ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in Table 3 at any residence on privately-owned land.</p> <table border="1"> <thead> <tr> <th>Airblast overpressure level (dB(Lin Peak))</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>115</td> <td>5% of the total number of blasts in a 12 month period</td> </tr> <tr> <td>120</td> <td>0%</td> </tr> </tbody> </table> <p><i>Table 3: Airblast overpressure impact assessment criteria</i></p>	Airblast overpressure level (dB(Lin Peak))	Allowable exceedance	115	5% of the total number of blasts in a 12 month period	120	0%	<ul style="list-style-type: none"> <li>Blast monitoring at every blast</li> </ul>	<ul style="list-style-type: none"> <li>Blast monitor reports from every blast</li> </ul>	Blasting Contractor and Environmental Officer	<input type="checkbox"/> DECC <input type="checkbox"/> DoP		
Airblast overpressure level (dB(Lin Peak))	Allowable exceedance												
115	5% of the total number of blasts in a 12 month period												
120	0%												

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency						
<b>Other Actions Required Under the Project Approval (cont.)</b>											
3(12)	<p>The Proponent shall ensure that the ground vibration level from blasting, or any other activity at the project does not exceed the criteria in Table 4 at any residence on privately-owned land.</p> <table border="1"> <thead> <tr> <th>Peak particle velocity</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>5% of the total number of blasts in a 12 month period</td> </tr> <tr> <td>10</td> <td>0%</td> </tr> </tbody> </table> <p><i>Table 4: Ground vibration impact assessment criteria</i></p>	Peak particle velocity	Allowable exceedance	5	5% of the total number of blasts in a 12 month period	10	0%	<ul style="list-style-type: none"> <li>Blast monitoring at every blast</li> </ul>	<ul style="list-style-type: none"> <li>Blast monitor reports from every blast</li> </ul>	Blasting Contractor and Environmental Officer	<input type="checkbox"/> DECC <input type="checkbox"/> DoP
Peak particle velocity	Allowable exceedance										
5	5% of the total number of blasts in a 12 month period										
10	0%										
3(13)	The Proponent shall only carry out blasting on site between 9 am and 5 pm Monday to Saturday.	<ul style="list-style-type: none"> <li>Scheduling of blasting within this timeframe only</li> </ul>	<ul style="list-style-type: none"> <li>Blast monitor reports</li> </ul>	Mine Manager	<input type="checkbox"/> DoP						
3(14)	The Proponent may carry out: <ul style="list-style-type: none"> <li>(a) a maximum of 2 blasts a day;</li> <li>(b) 5 blasts a week, averaged over a 12 month period;</li> </ul> on site without the written approval of the Director-General.	<ul style="list-style-type: none"> <li>Blasting in accordance with these conditions only</li> </ul>	<ul style="list-style-type: none"> <li>Blast monitor reports</li> </ul>	Mine Manager	<input type="checkbox"/> DoP						
3(15)	During mining operations on site, the Proponent shall implement best blasting practice to: <ul style="list-style-type: none"> <li>(a) protect the safety of people, property, public infrastructure, and livestock;</li> <li>(b) minimise the dust and fume emissions from blasting at the mine site,</li> </ul> to the satisfaction of the Director-General.	Implementing best blasting practices	Reporting in AEMR	Blasting Contractor, Environmental Officer and Mine Manager	<input type="checkbox"/> DoP						
3(16)	The Proponent shall not undertake blasting within 500 metres of any privately-owned land, unless suitable arrangements have been made with the landowner and any tenants to minimise the risk of flyrock-related impact to the property to the satisfaction of the Director-General.	Blasting in accordance to this condition	Blast monitor reports	Blasting Contractor, Environmental Officer and Mine Manager	<input type="checkbox"/> DoP						

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Other Actions Required Under the Project Approval (cont.)</b>					
3(18)	<p>During mining operations on site, the Proponent shall:</p> <ul style="list-style-type: none"> <li>(a) notify any person who registers an interest in being notified about the blasting schedule at the mine;</li> <li>(b) operate a Blasting Hotline, or alternate system agreed to by the Director-General, to enable the public to get up-to-date information on the blasting schedule at the project;</li> <li>(c) advertise the blasting hotline number in a local newspaper each year; and</li> <li>(d) provide signage, with updated details of proposed blasting times, immediately to the north and south of the mine site on Wean Road;</li> </ul> <p>to the satisfaction of the Director-General.</p>	<ul style="list-style-type: none"> <li>• Notify interested persons in regard to blasting</li> <li>• Establish blasting hotline and advertise the number in local papers</li> <li>• Establish and update signage on Wean Road</li> </ul>	<ul style="list-style-type: none"> <li>• Nil – reporting done in AEMR</li> </ul>	<p>Mine Manager and Environmental Officer</p>	<input type="checkbox"/> DoP
3(21)	<p>If any landowner within a 2 km of proposed blasting activities, or any other landowner nominated by the Director-General, claims that any building or structure on his/her property, including vibration-sensitive infrastructure such as water supply or underground irrigation mains, has been damaged as a result of blasting at the project, the Proponent shall within 3 months of receiving this request:</p> <ul style="list-style-type: none"> <li>(a) commission a suitably qualified person whose appointment has been approved by the Director-General to investigate the claim; and</li> <li>(b) give the landowner a copy of the property investigation report.</li> </ul> <p>If this independent investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Director-General.</p> <p>If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.</p>	<ul style="list-style-type: none"> <li>• Appointment of qualified person to investigate and report on the claim</li> </ul>	<ul style="list-style-type: none"> <li>• Report from qualified person on the claim</li> </ul>	<p>Mine Manager</p>	<input type="checkbox"/> DoP

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency																							
<b>Other Actions Required Under the Project Approval (cont.)</b>																												
3(23)	<p>The Proponent shall ensure that dust emissions generated by the project does not cause additional exceedances of the criteria listed in Tables 5 to 7 at any residence on privately owned land, or on more than 25 percent of any privately-owned land.</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>TSP</td> <td>Annual</td> <td>90ug/m<sup>3</sup></td> </tr> <tr> <td>PM<sub>10</sub></td> <td>Annual</td> <td>30ug/m<sup>3</sup></td> </tr> </tbody> </table> <p><i>Table 5: Long term impact assessment criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>PM<sub>10</sub></td> <td>24 hour</td> <td>50ug/m<sup>3</sup></td> </tr> </tbody> </table> <p><i>Table 6: Short term impact assessment criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>Deposited Dust</td> <td>Annual</td> <td>2g/m<sup>2</sup>/month</td> <td>4g/m<sup>2</sup>/month</td> </tr> </tbody> </table> <p><i>Table 7: Long term impact assessment criteria for deposited dust</i></p>	Pollutant	Averaging Period	Criterion	TSP	Annual	90ug/m <sup>3</sup>	PM <sub>10</sub>	Annual	30ug/m <sup>3</sup>	Pollutant	Averaging Period	Criterion	PM <sub>10</sub>	24 hour	50ug/m <sup>3</sup>	Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level	Deposited Dust	Annual	2g/m <sup>2</sup> /month	4g/m <sup>2</sup> /month	<ul style="list-style-type: none"> <li>Monitoring in accordance with Project Approval</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring results at frequency required in Project Approval</li> </ul>	Environmental Officer	<input type="checkbox"/> DECC <input type="checkbox"/> DoP
Pollutant	Averaging Period	Criterion																										
TSP	Annual	90ug/m <sup>3</sup>																										
PM <sub>10</sub>	Annual	30ug/m <sup>3</sup>																										
Pollutant	Averaging Period	Criterion																										
PM <sub>10</sub>	24 hour	50ug/m <sup>3</sup>																										
Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level																									
Deposited Dust	Annual	2g/m <sup>2</sup> /month	4g/m <sup>2</sup> /month																									
3(25)	<p>During the project, the Proponent shall ensure there is a suitable meteorological station on site that complies with the requirements in <i>Approved Methods for Sampling of Air Pollutants in New South Wales</i> (DECC, 2007), or its latest version.</p>	<ul style="list-style-type: none"> <li>Siting of Met Station on site as required</li> </ul>	<ul style="list-style-type: none"> <li>Evidence of results obtained from Met Station</li> </ul>	Environmental Officer	<input type="checkbox"/> DoP																							
3(26)	<p>The Proponent shall ensure that subsidence of the land surface caused by auger coal mining does not result in vertical subsidence of greater than 20 mm.</p>	<ul style="list-style-type: none"> <li>Ongoing monitoring to ensure compliance</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	Mine Manager	<input type="checkbox"/> DoP																							

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency																		
<b>Other Actions Required Under the Project Approval (cont.)</b>																							
3(27)	<p>The Proponent shall:</p> <p>(a) implement the Biodiversity Offsets summarised in Table 8 and described in the EA (shown conceptually in Figure 6 in Appendix 4); and</p> <p>(b) make suitable arrangements to provide appropriate long term security for the offset areas by the end of August 2010, to the satisfaction of the Director-General.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Offset Area</th> <th>Minimum Size</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>"Glenroc" remnant Ironbark – Pilliga Grey Box vegetation</td> <td style="text-align: center;">42.3 ha</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Northern boundary of project site</td> <td style="text-align: center;">2.6 ha</td> </tr> <tr> <td style="text-align: center;">3</td> <td>Jaeger Lane</td> <td style="text-align: center;">2.6 ha</td> </tr> <tr> <td style="text-align: center;">4</td> <td>Southern boundary of project site</td> <td style="text-align: center;">3.8 ha</td> </tr> <tr> <td style="text-align: center;">5</td> <td>Whitehaven Regional Biodiversity Offset Area</td> <td style="text-align: center;">60 ha (see condition 28)</td> </tr> </tbody> </table> <p>Table 8: Biodiversity Offsets</p>	Offset Area		Minimum Size	1	"Glenroc" remnant Ironbark – Pilliga Grey Box vegetation	42.3 ha	2	Northern boundary of project site	2.6 ha	3	Jaeger Lane	2.6 ha	4	Southern boundary of project site	3.8 ha	5	Whitehaven Regional Biodiversity Offset Area	60 ha (see condition 28)	<ul style="list-style-type: none"> <li>Mark out and fencing of offsets on site</li> <li>Formal security of offset as approved by DG.</li> </ul>	<ul style="list-style-type: none"> <li>Offsets marked on Site plans</li> <li>Formal advice from DoP accepting methodology and documented evidence of security</li> </ul>	Mine Manager and Environmental Officer	<input type="checkbox"/> DoP <input type="checkbox"/> DECC
Offset Area		Minimum Size																					
1	"Glenroc" remnant Ironbark – Pilliga Grey Box vegetation	42.3 ha																					
2	Northern boundary of project site	2.6 ha																					
3	Jaeger Lane	2.6 ha																					
4	Southern boundary of project site	3.8 ha																					
5	Whitehaven Regional Biodiversity Offset Area	60 ha (see condition 28)																					
3(28)	<p>The Proponent is to allocate at least 60ha of the required offset from the Whitehaven Regional Biodiversity Offset Area (offset 5 in Table 8 – also refer to Appendix 8). This must be done in consultation with DECC and to the satisfaction of the Director-General.</p>	<ul style="list-style-type: none"> <li>Survey of 60ha from Regional Biodiversity offset area allocated against Rocglen Project</li> <li>Registration of plans and titles to affect the offset</li> </ul>	<ul style="list-style-type: none"> <li>Formal advice of acceptance of offset from DECC and DoP, and form of security or transfer</li> </ul>	Mine Manager and Environmental Officer	<input type="checkbox"/> DoP <input type="checkbox"/> DECC																		

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Other Actions Required Under the Project Approval (cont.)</b>					
3(29)	<p>The Proponent shall progressively rehabilitate the site in a manner that is generally consistent with the final landform set out in the EA (shown conceptually in Figure 5 in Appendix 4) to the satisfaction of the Director-General and DPI.</p> <p>The final landform shall provide for at least 84 hectares of woodland vegetation, in a manner generally consistent with that shown conceptually in Figure 6 in Appendix 4.</p>	<ul style="list-style-type: none"> <li>Complete rehabilitation to the satisfaction of DoP and DPI</li> </ul>	<ul style="list-style-type: none"> <li>Formal acceptance of rehabilitation and release from lease</li> </ul>	Environmental Officer and Mine Manager	<input type="checkbox"/> DoP <input type="checkbox"/> DPI
3(34)	<p>The Proponent may destroy sites B1, B2 and B3, and undertake salvage of the artefacts contained in these sites, to the satisfaction of DECC. Representatives of the local Aboriginal community may, subject to the conditions of a Care and Control permit, relocate some or all of the artefacts contained in these sites to the Cumbo Gunerah Keeping Place.</p>	<ul style="list-style-type: none"> <li>Only Aboriginal Sites in this condition to be destroyed or relocated to Cumbo Gunerah Keeping Place</li> </ul>	Care and Control Permit	Environmental Officer and Mine Manager	<input type="checkbox"/> DoP <input type="checkbox"/> DECC
3(35)	<p>The Proponent shall not destroy any known Aboriginal objects (as defined in the National Parks and Wildlife Act 1974), except in accordance with condition 34, without the written approval of the Director-General.</p>	<ul style="list-style-type: none"> <li>No Aboriginal Sites to be destroyed except in accordance to condition 3(34)</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	Environmental Officer and Mine Manager	<input type="checkbox"/> DoP <input type="checkbox"/> DECC
3(37)	<p>The Proponent shall keep records of the amount of coal transported from the mine site, and number of coal truck movements each year, and include these records in the AEMR.</p>	<ul style="list-style-type: none"> <li>Accurate records to be kept of coal transport and truck movements</li> </ul>	<ul style="list-style-type: none"> <li>Coal transport and truck movement records to be included in AEMR</li> </ul>	Haulage Contractor and Mine Manager	<input type="checkbox"/> DoP
3(39)	<p>The Proponent shall transport all coal from the site to the Whitehaven Siding coal handling and preparation plant by use of the road transport route shown in Figure 3 of Appendix 2, unless otherwise approved by the Director-General.</p>	<ul style="list-style-type: none"> <li>Coal transport from site along defined transport route only</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	Haulage Contractor and Mine Manager	<input type="checkbox"/> DoP
3(40)	<p>The Proponent shall only dispatch coal from the site by road between the hours of:</p> <p>(a) 7 am to 9.15 pm, Monday to Friday;            (b) 7 am to 5.15 pm Saturday; and            (c) at no time on Sundays and public holidays.</p>	<ul style="list-style-type: none"> <li>Coal dispatch in the approved hours only</li> </ul>	<ul style="list-style-type: none"> <li>Coal transport and truck movement records to be included in AEMR</li> </ul>	Haulage Contractor and Mine Manager	<input type="checkbox"/> DoP

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Other Actions Required Under the Project Approval (cont.)</b>					
3(46)	The Proponent shall: (a) ensure no outdoor lights shine above the horizontal; (b) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting; (c) take all practicable measures to mitigate off-site lighting impacts from the project; and (d) minimise the visual impacts of the project, to the satisfaction of the Director-General.	<ul style="list-style-type: none"> <li>• Regular monitoring to ensure compliance</li> <li>• Implement all practical off-site lighting mitigation</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	Mine Manager and Environmental Officer	<input type="checkbox"/> DoP
3(48)	The Proponent shall: (a) monitor the amount of waste generated by the project; (b) investigate ways to reuse, recycle, or minimise the waste generated by the project; (c) implement reasonable and feasible measures to minimise waste generated by the project; (d) ensure irrigation of treated wastewater is undertaken in accordance with Environmental Guidelines: Use of Effluent by Irrigation (DEC, 2004), or its latest version; and (e) report on waste management and minimisation in the AEMR, to the satisfaction of the Director-General.	<ul style="list-style-type: none"> <li>• Monitor waste generation</li> <li>• Implementation of reasonable and feasible measures to minimise waste generation</li> <li>• Irrigation of wastewater is in accordance with guidelines</li> </ul>	<ul style="list-style-type: none"> <li>• Waste management and minimisation to be recorded in the AEMR</li> </ul>	Environmental Officer and Mine Manager	<input type="checkbox"/> DoP

Schedule (Condition No.)	Condition / Comment	Actions Required to Achieve Compliance	Documentation Required to Demonstrate Compliance	Personnel Responsible	Authorising/ Responsible Agency
<b>Other Actions Required Under the Project Approval (cont.)</b>					
5(3)	Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval, or the occurrence of an incident that causes (or may cause) material harm to the environment, the Proponent shall notify the Department and other relevant agencies of the exceedance/incident.	<ul style="list-style-type: none"> <li>Notification at time of exceedance or incident</li> </ul>	<ul style="list-style-type: none"> <li>Diarised entry of time/date of report</li> </ul>	Environmental Officer	<input type="checkbox"/> DoP
5(4)	Within 6 days of notifying the Department and other relevant agencies of an exceedance/incident, the Proponent shall provide the Department and these agencies with a written report that: <ul style="list-style-type: none"> <li>(a) describes the date, time, and nature of the exceedance/incident;</li> <li>(b) identifies the cause (or likely cause) of the exceedance/incident;</li> <li>(c) describes what action has been taken to date; and</li> <li>(d) describes the proposed measures to address the exceedance/incident.</li> </ul>	<ul style="list-style-type: none"> <li>Provision of written report to DoP and other relevant agencies</li> </ul>	<ul style="list-style-type: none"> <li>Copy of written report</li> </ul>	Environmental Officer	<input type="checkbox"/> DoP